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ABSTRACTS

A1-01
Research and Getting Published

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Research in Child and Adolescent Psychiatry is a fulfilling way to enhance skills and to develop an area of expertise that may guide future career choices. Identifying a research area of interest and pursuing a research question can seem daunting and there can often seem to be limited support or guidance available to assist the process. However there are many research opportunities to be availed of and important topics that can be investigated. Small steps in the right direction can lead to bigger opportunities depending on whether the desire is to publish papers and enhance future prospects or to pursue a career as an Academic Child and Adolescent Psychiatrist. We will discuss how best to identify research opportunities and the necessary skills to successfully bring a research project to a conclusion by publishing your work in a peer reviewed journal.

Keywords: Research; opportunities.

A1-02
The Future Direction of Child Psychiatry

Eric Taylor

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There are many gloomy predictions around at the moment, mostly about the place of medical approaches in a context of shrinking funding in Europe and increasing managerial control of professional activity. There are however specific and important roles for which child and adolescent psychiatrists can prepare themselves. We are a scientific profession; we need to encourage the development—not only of those who will be professional researchers but also of those who will develop and apply the clinical evidence base. We are a discipline with a broad training; we are needed for those complex and refractory cases in which several modes of intervention need to be applied; and most of us should train for breadth rather than for the intensity of a single therapeutic modality. Also—and this is not a contradiction—we need to cope with increasing specialisation. Knowledge increases much more rapidly than the power of the brain to digest it. It follows that we should not let our training become so committed to the same curriculum for everyone; but have the ability individually to personalise our training. Child mental health will also need to cope with increasing technological power. Molecular biology will allow us to apply genomic prediction of therapies; we shall learn how to apply neuroimaging to individual diagnosis and subtyping; we shall become able to monitor drug actions directly on brain function; neurocognitive knowledge will lead to more focussed psychological interventions. Child psychiatrists will need to include adaptability for their personal development as well as for their therapies.

Keywords: Funding; scientific; clinical evidence; specialisation.

A1-03
The Treatment of Unipolar Depressions in Adolescents

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Over the past decade there have been four key randomised controlled trials conducted with depressed adolescents. Three of these have been on clinical cases and one on a school based cohort. This evidence base provides a powerful set of new information for the revision of current treatment guidelines. The studies confirm the value of treatment over no treatment for moderate to severely depressed patients generally seen in specialist mental health services. For treatment responders there is no evidence that psychological treatment alone is likely to induce remission within 12 weeks. Treatment resistance is however likely in some 20 % of cases. For these cases a second therapeutic protocol of a change medication and high intensity CBT may alleviate disorder in up to 50 % or so. In schools with the focus on milder disorders and goals of early detection and prevention there remains no evidence that any mental health intervention is better that general advice and support from teachers and schools support staff. It appears very possible that the majority of milder episodes are related to proximal acutely distressing life events, are time limited and responsive to advice and support by known school personnel. Key needs for the future are to improve clinical validity of the syndrome, discover biomarkers that will aid therapeutic decision making, collaborate to determine the most effective brief psychotherapies, work with industry to find better pharmacological agents and engage information technology in selfhelp and information access for young people and their families.

A1-04-01
The challenges of European training in child and adolescent psychiatry: why observer and exchange programmes can help

Elizabeth Barrett[1], EFPT International Exchange Working Group[2]

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Background: Child and Adolescent psychiatry differs vastly in duration and composition across Europe, with many countries having little or no training programmes available. The EFPT is a trainee led organisation, representing trainees in 37 European countries. The group has voting rights at the UEMS-CAP group and has conducted several surveys looking at the composition of training. Efforts to harmonise training are underway, with such initiatives as the creation of UEMS-CAP European Logbook. In 2010 the EFPT set up a working group to develop exchange opportunities across Europe. This aims to promote:

- Awareness of intercultural aspects of Psychiatry
- Engage in clinical/research/teaching activities
- Gain experience of different illness manifestations and treatment options
- Experience a different training programme
- Socialise with peer group, promote networking

Methods: The EFPT set up an exchange programme in 2010, offering placements in 7 countries in the pilot phase. The project is now in its third iteration and opportunities are offered at present in 8 countries. This programme is run by trainees, to trainees. It offers 2–6 weeks in observational placements across Europe in diverse areas of CAP. Other opportunities of relevance to CAP trainees are offered: research, neuropsychiatry, sexual health, ECT, learning disabilities, forensic, addictions.
Results: In the pilot phase the programme received 39 applications, and expressions of interest from trainees in 12 different countries, from which 17 were accepted: The programme is now in its third phase in an 18 month period.
Conclusion: The EFPT has previously highlighted CAP training deficits in many European countries. This innovative exchange programme can support trainees in areas with limited access to CAP and can inform the structure of training across Europe and equip trainees for the practise of Psychiatry in the future.
Keywords: International Exchange, European Training, EFPT.

A1-04-02
International exchange/volunteering

Benjamin Baig[1], Leonie Boeing[1], Andrew Mckechanie[1], Robert Stewart[1], Douglas Blackwood[1], Felix Kauye[1], Johan Leuvenink[1], The Scotland Malawi Mental Health Education Project[2]

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Background: Mental health in Malawi has been perennially under recognized and mental health staff are often inadequately trained. [1] With just one psychiatrist and one psychiatric hospital, mental healthcare is hugely under resourced. International reports recommend the improvement in the amount and quality of training for mental health workers, the development of local human resources and the need to link with institutions in high income countries [2–4].
Aims: The Scotland Malawi Mental Health Education Project (SMMHEP) aims to support undergraduate and post graduate education in the College of Medicine, University of Malawi and to train UK psychiatrists in transcultural psychiatry methods.
Method: SMMHEP has been working for the past 6 years in Malawi to train medical and nursing staff and increase the local capacity for mental health care. Over 50 psychiatrists have travelled from Scotland during this time Nearly 300 medical students, 50 nursing students and 20 clinical officers have been trained by SMMHEP.
Results: Previous studies have shown that a UK undergraduate examination standard can be attained by these educational initiatives (5). Furthermore UK psychiatrists can benefit greatly from this training experience (6). A university department of mental health has been established in Malawi as well as the hosting of annual conferences and post graduate training.
Conclusions: Collaboration and exchange between low and high income countries can lead to positive educational and consequent healthcare impact for both.
Keywords: Malawi, Mental Health training, International Volunteer.

A1-04-03
The Boston Children's Hospital International Observer Programme

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Background: With prevalence rates of 20 % globally for child and adolescent mental disorders across cultures, there is a critical global public health need for evidence-based psychiatric services for children and adolescents in virtually all countries. Over the past decade there has been increasing interest in international trainees to avail themselves of child psychiatry training opportunities in the United States (US). This need has led to a burgeoning interest in innovative international mental health initiatives. Time limited observerships is one mechanism that is feasible and has had demonstrated positive results.
Methods: The development of a structured global child mental health observership program and 2 year outcomes from this program will be described.
Results: Out of over 200 applications from 25 countries, 12 observers from 9 countries rotated for 1–3 months at a tertiary academic pediatric center in the US. All the observers work in academic or government institutions in their home countries. The participants valued the observership experience including exposure to different health care systems and training models and have utilized aspects in their home countries.
Conclusion: Much has been learned about how to develop a feasible program that can impart knowledge that is useful without overpromising the outcomes to be expected. An on-site observership program at an academic center has significant potential for enhancing international child and adolescent mental health education in response to a critical global need.
Keywords: International Observer, Evidence based training, Global Child Mental Health.

A1-04-04
Opportunities and challenges in international exchange, observer and volunteer programmes-experiences from three programmes

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1. Dr. Patricia Ibeziako, *The Boston Children's Hospital International Observer Programme:* The development of a structured global child mental health observership program and 2 year outcomes from this program will be described. **Results:** Out of over 200 applications from 25 countries, 12 observers from 9 countries

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2. Dr. Elizabeth Barrett/EFPT International Exchange Working Group: *European training in Child and Adolescent psychiatry-why Observer and Exchange programmes can help.* Child and Adolescent psychiatry differs vastly in duration and composition across Europe, with many countries having little or no training programmes available. The EFPT is a trainee led organisation representing trainees in 37 European countries. In 2010 it began developing exchange opportunities across Europe. The project is now in its third iteration-opportunities are offered in 8 countries. 2–6 weeks placements in diverse areas of CAP-Data on current opportunities and feedback from participants will be presented. The EFPT has highlighted CAP training deficits in many European countries. This innovative programme can support trainees in areas with limited access to CAP and can inform the structure of training across Europe and equip trainees for the practise of Psychiatry in the future

3. Dr. Benjamin Baig, *International Exchange/Volunteering*: Mental health in Malawi has been perennially under recognized and mental health staff are often inadequately trained.

Aims: The Scotland Malawi Mental Health Education Project (SMMHEP) aims to support undergraduate and post graduate education in the College of Medicine, University of Malawi and to train UK psychiatrists in transcultural psychiatry methods.

Method: SMMHEP has been working for the past 6 years in Malawi to train medical and nursing staff. Over 50 psychiatrists have travelled from Scotland during this time Nearly 300 medical students, 50 nursing students and 20 clinical officers have been trained.

Results: Previous studies have shown that a UK undergraduate examination standard can be attained by these educational initiatives. Furthermore UK psychiatrists can benefit greatly from this training experience. Collaboration and exchange between low and high income countries can lead to positive educational and consequent healthcare impact for both.

Keywords: Training, Education, International Exchange, International collaboration, EFPT, Volunteer Programme.

A1-05-01

What can EFPT do for European trainees in Europe?

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The European Federation of Psychiatric Trainees (EFPT) was formed in London in 1992 and is an independent, non-profit-making, international federation of psychiatric trainees associations. Constantly broadening, it is now an association formed of thirty national trainee organisations from Portugal and Ireland in the west to Russia in the east. EFPT is represented on both the Adult and Child Psychiatry sections of the UEMS. It aims to promote the formation of national trainee organisations, to implement higher standards in education and training in psychiatry in Europe, and the exchange of training experiences across the European nations.

This presentation will outline the history and activities of EFPT and the challenges faced by such an international trainee organisations. It will also focus on key issues such as the implementation of Competecy Based Training across European countries, a project in it's way through the joint effort of both UEMS and EFPT, the creation of an exchange program for trainees in psychiatry and child psychiatry, and the activities of Child and Adolescent Psychiatry trainees within the EFPT.

A1-05-02

The role of trainees, the EPFT and trainers in developing a European curriculum framework and logbook to support training standards across Europe.

Brian Jacobs

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This presentation will review the results and impact of a survey carried out across Europe by trainees assessing their experience of the opportunities in their training to be Child and Adolescent Psychiatrists. The results of the survey showed that the experience offered to trainees was very variable across Europe. The availability of educational (as opposed to clinical) supervision i.e. that supervision targeted to tailor the whole training to the interests and needs of the trainee throughout their training, was poor. The availability of subspecialty experience during training across Europe was patchy. The survey also found that a research component as part of the training is required in less than a third of countries in Europe. It will use these results as a platform to consider the challenges that face EPFT and UEMS-CAP to achieve an appropriate pan-European framework for training Child and Adolescent Psychiatrists with regard to the knowledge and skills to be acquired. Should the whole of the curriculum be specified or should there be some choice of the range of topics and experiences during training? Should child and adolescent psychiatrists continue to be trained as therapists or has the role of the doctor changed in recent years? It will also consider how the training structures can be organised so that they support trainees given considerable disparity of the current organisation of Child and Adolescent Psychiatry training in Europe. Not all child psychiatry training in Europe has any link to a university department of psychiatry at present. Is this desirable or acceptable for the future? The talk will point to the trainees as an engine of change.

A1-05-03

EFPT research activities within the CAP working group

Lucia Pacherova

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Research activities within the CAP working group

The European Federation of Psychiatric Trainees (EFPT) is an international federation of psychiatric trainees associations. EFPT encompassates several working groups that focus and support different fields and carry out several projects. The aim of the Child and Adolescent Working Group (CAP WG) within EFPT is firstly to represent CAP trainees and develop common recommendations regarding training while furthering links with organizations such as UEMS. In recent years, the group has also recognized the need to collect information in order to assess the quality level of training in European countries, to recognize differences and build upon the positives. In 2010–2011 we focused on training standards around Europe. We mapped the standards for education and training programmes within European countries and this study will be mentioned in another presentation of the same symposium.

In 2011–2013 we are focusing on:

A. The field of psychotherapy. The CAP WG recognizes that family and family relationships play a major role in the formation of a child's personality. Results of our survey show that the experience of training in psychotherapy offered to trainees was very variable across Europe.

B. Transition from adolescent to adult mental health services. Transition comes to the mind of every clinician by the time one patient moves from the child/adolescent mental health service to the adult mental health service. Unfortunately, it's often discussed but rarely studied or accessed. More concerns can be raised when the specific patient has a serious mental disease. More even, if that mental disease aroused during late adolescence, which is the common reality for major diseases in psychiatry. Preliminary results show that there are great differences in the way clinicians perceive transition across Europe.

Our results aim to be used for future studies, broadening the research, creating guidelines and interventions in the field, and they'll be presented during this oral communication.

A1-05-04

The Impact of EFPT through foundation of national trainee's associations: The Irish example

Nina Devlin

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Introduction: Since the advent of the new College of Psychiatry in Ireland a couple of years ago, the Irish psychiatric trainees took on an active and prolific role in a more structured format in the development of training in Ireland. A crucial part of this was to ensure that trainees have representation on all committees within the college. Examples of these include committees responsible for curriculum and training organisation, namely the Psychiatric Trainee Committee (where basic and higher specialist trainees from all over Ireland meet regularly in the College of Psychiatry) and the Psychiatric Training Committee (involving consultants responsible for curriculum development). Child and Adult trainees come together for joint academic training days. I ran as chair of the child and adolescent HST (higher specialist trainee) committee for 12 months in 2011. Our aims in this presentation is to highlight the activities of trainees and their connection to EFPT:The trainees reviewed their activities locally, nationally and internationally, closely linking with the EFPT, looking at contributing in new and innovative ways. On a local level child and adolescent trainees contribute in organising and directing the rotations, the academic programme for higher specialist training, and liaising with speakers nationally and internationally. On a national level the psychiatric trainees developed a stimulating and informative quarterly e-newsletter "Think Tank", for Irish Trainees, which the college IT department supports. As an original editor I contributed to this for 12 months. This disseminates information speedily for those trainees in less accessible or more rural areas. More recently the most successful summer school won a prize at the last EFPT conference in Sorrento and was highlighted in the national paper. It is a recruitment exercise set up by trainees to attract medical trainees and non-consultant hospital doctors into psychiatry. The exchange programme is a very exciting initiative in which the Irish Trainees have participated in since the pilot in 2011, receiving trainees from many countries and sending trainees to other many other countries. In summary there are lots of initiatives and developments involving Irish trainees and linking with the EFPT.

Keywords: EFPT, Irish Association, Trainees.

A1-07

Forensics for the generalist

Sue Bailey

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Adult forensic psychiatry encompasses the assessment, care and treatment of "mentally disordered offenders." It includes working in close collaboration with all stages and parts of the criminal justice system including the preparation of specialists reports for the court. Increasingly forensic psychiatrists are being drawn into national violence prevention programmes adopting a public health, mental health model. All forensic psychiatrists work with victims as well as perpetrators. In child psychiatry many generalists will work with "family" courts either in the course of their usual work and/or more specifically choose to work with children where there are welfare issues. Child and adolescent forensic psychiatry has evolved over the last 30 years. Generalist child psychiatrists take variable approaches about how, and what forensic work they should be involved in. The reality is however that the most common presenting co-morbidity to child psychiatry clinics will be that of conduct disorder. A clear evidence base has now built up about the association of a wide range of "antisocial behaviours" linked to the broad spectrum of neurodevelopmental disorders. This paper will outline how all child psychiatrists can be best equipped through education and training to deal with "forensic" cases, work collaboratively with specialist child and adolescent forensic psychiatrists. Further to review what this speciality will look like across Europe in the next 20 years. The impact of evidence based physical and psychological interventions, and the impact of new knowledge in the neurosciences, social sciences and how best use can be made of new technologies when working with what are often perceived to be "hard to reach and engage" children and families. And how as clinicians we can at all times work within an ethical governance framework given at times our treatments are coercive and involve the detention of children.

Keywords: Forensic; conduct disorder.

S1-01

Treatment of anxiety and mood disorders

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Objective: Anxiety disorders in children, and depression in adolescents are very common internalizing conditions (Kessler et al., 2010). If left untreated they can result in considerable impairment that extends into adulthood. At this time there is substantial evidence supporting the efficacy of SSRI treatment and cognitive behavioral approaches to anxiety and depression. This presentation will review the evidence base for the pharmacological and psychological treatment of anxiety and depression in children and adolescents including strategies for partially responsive or refractory cases.

Methods: The presentation is based on a literature review of the treatment and related studies of the anxiety disorders and major depression in children and adolescents.

Results: The anxiety disorders commonly present prior to puberty and are extremely common, perhaps the most common disorder in childhood. Depression can present early in life, but most commonly first presents in mid adolescence. Treatment studies for both conditions have demonstrated the benefit of antidepressant medication and cognitive behavioral therapy alone and when used in combination appear to offer the greatest benefit. The Child/Adolescent Anxiety Multimodal Study (CAMS, Walkup et al., 2008) is one of the largest randomized controlled trials in children and adolescents and established the evidence base for the treatment of the non-OCD anxiety disorders. The Pediatric OCD Treatment Study established the evidence base for the treatment of childhood OCD (POTS Team, 2004). For depression, the Treatments of Adolescents with Depression Study (TADS, March et al., 2004); the Treatment of Resistant Depression in Adolescents (TORDIA, Brent et al., 2008); the ADEPT trial (Goodyer et al., 2007) and the Treatment of Adolescent Suicide Attempters (TASA, Brent et al., 2009) form the evidence base for the treatment of depression in teens. For both the anxiety disorders in children and depression in teens the long-term outcome when treatment is optimized results in an 80 % response rate.

Conclusion: The anxiety disorders and major depression are responsive to treatment with cognitive and behavioral therapy and with pharmacotherapy. Combination treatment and strategies to enhance treatment improve outcomes for those who may not initially respond. Much more needs to be done to further optimize and personalize treatment to achieve the goal of precision medicine for anxiety and depression in children and adolescents.

S1-02

Neuropsychological and imaging endophenotypes of attention-deficit/hyperactivity disorder

Susan Shur-Fen Gau

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Attention-deficit/Hyperactivity Disorder (ADHD) is a common early-onset clinically and genetically heterogeneous neuropsychiatric disorder with executive functions and other neurobiological deficits. This lecture will review the neurocognitive endophenotypes for ADHD and summarize the endophenotype approach to validate ADHD based on studies from my lab using Taiwanese population. Our previous studies have demonstrated that executive functions measured by the Spatial Span, Spatial Working Memory, Intradimensional/Extradimentional Shift, Stocking of Cambridge, and Rapid Visual Information Processing of the CANTAB, visual memory measured by the Delayed Matching to Sample, tau (τ) of ex-Gaussian distribution of reaction time, interval timing assessed by the time discrimination and time reproduction dual tasks can be the candidate for cognitive endophenotypes of ADHD; and DAT1 gene associated with ADHD inattentive type, inattention symptoms and executive functions (e.g., spatial working memory). The association of ADHD with neurobiological deficits in the frontostriatal and frontoparietal networks will be presented from our morphometric, functional imaging and diffusion spectrum imaging studies. For example, we found disturbed fronto-striatal and cingulum microstructure integrity in ADHD that were correlated with impaired executive functions, attention controls, and ex-Gaussian parameters of reaction time. In addition, the effects of methylphenidate and atomoxetine on the changes of neuropsychological functions and structural and functional connectivity in several relevant networks in ADHD will be presented based on our data on three placebo-controlled or head-to-head randomized clinical trials in child and adult ADHD populations.

Keywords: ADHD, endophenotype, neuropsychological functions, imaging, diffusion spectrum imaging, methylphenidate, atomoxtine.

S2-01-01

Transitions in mental health across European boundaries

Fiona McNicholas

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Late adolescence is a time when the more serious and enduring mental illnesses are likely to emerge as noted by Kessler et al. (2005). Delivering early, effective and seamless treatment of these disorders is critical to ensuring positive outcomes for young people. However there is evidence to suggest many young people, in particular adolescents aged between 16 and 18, are falling through gaps in care and are not receiving the services they need. Accessing and engaging with services can be a difficult process for many young people as there are a number of barriers that need to be contended with on the part of the young person themselves and also on the part of services. This symposium will commence with setting the scene in terms of highlighting the prevalence of MH disorders in adolescence, the importance of optimum MH and access to services. Subsequent talks will identify the barriers to accessing mental health services for older adolescents across Europe both from the perspective of service users and service providers alongside a discussion of how these can be addressed through service development. It will end with a clinical focus on individuals with complex neuropsychiatric disorders with limited life expectancy and their need to transition to MH services.

Educational learning objectives:

- Develop an awareness of the issues facing young people aged 16–18 when accessing and engaging with mental health services
- Consider the action required to ensure this cohort receive timely and effective mental health services
- Consider a pan European perspective allowing services to benefit from initiatives made in some countries

S2-01-02

Transition from child and adolescent mental health services to adult mental health services: updated findings from the TRACK study

Swaran Singh

The University of Warwick, Child and Adolescent Psychiatry, Coventry, UK

Collaborators: The TRACK study team included Professor Swaran Singh, Dr. Ruth Belling, Dr. Jenny Dale, Dr. Navina Evans, Dr. Tamsin Ford, Dr. Nicole Fung, Ms Katherine Harley, Dr. Daniel Hayes, Ms. Kimberly Hovish, Dr. Zoebia Islam, Dr. Bob Jezzard, Dr. Tami Kramer, Professor Susan McLaren, Dr. Moli Paul, Dr. Anne Rourke, Dr. Tim Weaver and Dr. Sarah White.

Acknowledgments: The TRACK Study was funded by the National Institute of Health Research (NIHR) Service Delivery and Organisation (SDO) programme (http://www.sdo.nihr.ac.uk)

Abstract: The TRACK study is a multisite, mixed-methods study that explored the process, outcome and experience of transition from CAMHS to AMHS in six Trusts in London and West Midlands (United Kingdom). We mapped existing transition protocols, tracked transition pathways and outcomes of all users who crossed transition boundary in the preceding year, conducted qualitative analysis of clinicians' managers' and voluntary sector perspective on transition with in-depth interviews with a sub-sample of service-users, carers and their care co-ordinators. There were 14 active protocols in the study areas, which were based on policy documents but differed on practical aspects. Transition boundary varied from 16 years to 21 and over. Three-quarters of the protocols had no provision for ensuring continuity of care for cases not accepted by AMHS. Of the 154 cases who crossed the transition boundary, 90 made a transition to AMHS (actual referrals), and 64 were either not referred or not accepted by AMHS (potential referrals). Less than 4 % of those accepted by AMHS experienced an optimal transition. Those with a severe and enduring mental illness, a hospital admission, on medication and who attended CAMHS with their parents were most likely to make a transition. Those with neurodevelopmental disorders, emotional disorder or emerging personality disorder were most likely to fall through the CAMHS-AMHS gap. A fifth of cases accepted by AMHS were discharged without being seen. Re-analysis of the data has shown that transfer and transition are related but different processes. Qualitative interviews with service users revealed that very few had experienced good transitional care and those that had viewed it as positive. Most young people preferred not having their parents involved in their care with AMHS, while parents wanted greater involvement. Following transition to AMHS, most users stayed engaged and reported improvement in their mental health. Qualitative interviews also showed that CAMHS and AMHS had mutual misperceptions that hampered communication across the interface.

Conclusions: For the vast majority of service users, transition from CAMHS to AMHS is poorly planned, poorly executed and poorly experienced. Transfer is more common than good transition; the two processes should be investigated separately in research and service development. The transition process accentuates pre-existing barriers between CAMHS and AMHS.

Keywords: Transition, adolescent, young people, mental health, health services.

S2-01-03

Service providers' accounts of transition from child and adolescent to adult mental health services in Ireland

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Background/Aims: Adolescents' psychological needs are greatest during the transition to adulthood but paradoxically, the point of transition from Child and Adolescent Mental Health Services (CAMHS) to Adult Mental Health Services (AMHS) can be where services are at their weakest. Negative transition experiences can adversely impact young people's future mental health service engagement and can reverse any health gains made in CAMHS. Youth mental health is a global priority and it is incumbent on all countries to probe their individual structures and service provision for those in transition. This study investigates the organisational cultures, structures and processes that impact on transition. The primary objective was to identify the organisational factors that both facilitate and impede successful transition.

Method: Face-to-face semi-structured interviews of between 35 and 70 min were conducted with a purposive sample of key professional staff in Child and Adolescent Mental Health Services (n = 8), Adult Mental Health Services (n = 8), national youth organisations (n = 9), and GPs (n = 8). Questions addressed the main challenges experienced in providing mental health services to young people and the factors impacting on transition including collaboration and communication between services and with young people. Interviews were audio-recorded, transcribed, and thematically analysed.

Results: The analysis suggests a number of 'system issues' impact on transition including availability of resources, interagency collaboration and communication, and service cultures. There is a variation in the level of contact and the quality of relationships between different healthcare professionals which is underpinned by differing service cultures and working practices.

Conclusions: Current service configurations create particular challenges to inter-agency collaboration and communication. There is an urgent need to encourage dialogue and collaboration between statutory and voluntary mental health agencies to ensure that young people receive the most suitable and effective care for their needs.

Keywords: Transition, child services, adult services, mental health.

S2-01-04

Transition to adult services for young people with mental health needs: a systematic review

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Collaborators: Dr. Cathy Street, Ms Nicola Wheeler, Professor Swaran Singh

Acknowledgements: NHS West Midlands Innovation Fund, NHS Midlands and East, UK funded CS and NW

Objectives: To systematically review evidence on the effectiveness of different models of child and adolescent (CAMHS) to adult mental health services (AMHS) transitional care; service user and staff perspectives; and facilitators of/barriers to effective CAMHS-AMHS transition.

Data sources: A systematic search in May 2012 of Medline, PsychINFO, CINAHL, EMBASE, AMED, Health Business Elite, HMIC, Cochrane Database, Web of Science and ASSIA; ancestral searches and consultation with experts in the field.

Study selection: Qualitative, quantitative and mixed methods primary research on the CAMHS-AMHS healthcare transition of young people (aged 16–21 years) with mental health problems.

Data extraction: Two reviewers independently completed a standardised data extraction form and critically evaluated identified documents using a validated appraisal tool for empirical studies with varied methodologies.

Results: 19 studies of variable quality were identified. None were randomized or case controlled trials. Studies incorporating service user/carer perspectives highlighted the need to tackle stigma and provide accessible, age-appropriate services. Parents/carers wanted more involvement with AMHS. Transitional care provision was considered

patchy and often not prioritised within mental health services. There was no clear evidence of superior effectiveness of any particular model.
Conclusions: High quality evidence of transitional care models is lacking. Data broadly support the development of programs that address the broader transitional care needs of 'emerging adults' and their mental health needs but further evaluation is necessary. Developing robust transitional mental health care will require the policy-practice gap to be addressed and development of accessible, acceptable, responsive, age-appropriate provision.

Keywords: Transition, adolescent, young people, mental health, health services.

S2-02-01
Benefit of quality improvement networks for CAMHS: A UK perspective

Sue Bailey, Peter Thompson

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This paper will set into context the work of the quality improvement networks for CAHMS as part of the overall work of the Centre for QuAlity improvement at the Royal College Of Psychiatrists. A brief overview of the overall work of the CCQI how CAMHS networks dovetail into overlapping specialties of substance misuse, learning disability and forensic services. Evidence will be presented of how growing network participants can contribute to improving quality of child and adolescent community and inpatient services, including benefits in terms of personal development of the mental health professionals involved. How improved outcomes could be more robustly measured and assessed beyond safety and clinical outcomes to embed patient and carer views more firmly into the process. As author Prof Sue Bailey is currently the chair of CCQI overarching governance board to explore how at all levels in the quality assurance process there is embedded a robust governance, structure for ethical decision making in this process given in England the current restructuring of health and social services to a more market forces base commissioning process. Exploration in all countries of how we can encourage trainees to undertake evaluative research in this field. Information will also be shared about the prescribing observatories for child mental health disorders and possible ways prescribing practices can be improved.

Keywords: Quality improvement; quality; personal development; governance.

S2-02-02
Evaluation and quality assurance in outpatient care for children/adolescents with mental health problems/ mental illness: A UEMS-CAP perspective

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Overview of the Symposia:
Quality assurance (QA) is one of the most important critical factors for success nowadays. There are many discussions about quality assurance, especially in the area of healthcare (in inpatient as well as outpatient institutions) because of lack of resources, increasing costs, legal demands etc. Thus, there are more and more claims about providing evidence of the effectiveness and efficacy of different interventions as well as about providing transparency. Although stakeholders in the area of healthcare agree QA is needed, a common policy is missing (Merod et al., 2006). A promising approach is to benefit from standards and methods developed within the context of evaluation research (DeGEval, 2001). QA is especially challenging for institutions assisting children/ adolescents with mental health problems and/or mental illness because common standards for assessing therapeutic outcome are not only missing, but also difficult to measure. Furthermore, one can ascertain lots of criteria for success only in the long run and the still ongoing cognitive, linguistic and socio-emotional development of the patients has to be considered. Thus, a multi-method and multi-informant approach is indispensable. The *UEMS/Section of Child and Adolescent Psychiatry* has discussed QA since a couple of years. In 2009, a statement was approved by the general assembly with the intention stimulating discussions and providing a hallmark for initiatives in this field (Spiel, Bailey, Hovland, Schaff andTomori, 2009). Following this, an online-survey was developed and distributed in getting to know which QA-initiatives (on national, local or institutional level) are conducted in European countries. Information about the current situation of QA in service delivery for children/adolescents with mental health problems in different countries will be presented in this workshop. The presentations will focus on the situation in Austria, Germany, Greece, The Netherland, Turkey, United Kingdom (in alphabetical order). Our aim is to foster/ create a network of interested MH-professionals and set next steps.

Keywords: Quality Assurance, Evaluation.

S2-02-03
3 year evaluation of community based interdisciplinary outpatient clinics

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Within the last years, evidence for effectiveness and efficiency of different offers in the area of healthcare are getting more and more important due to limited financial resources and legal issues. There is an increasing demand for quality assurance (QA), evaluations and quality development (QD) that matters for inpatient as well as outpatient institutions. QA is especially challenging for institutions assisting children/adolescents with mental health problems because common standards for assessing therapeutic outcome are not only missing, but also difficult to measure. Furthermore, one can ascertain lots of criteria for success only in the long run. In the following contribution a corresponding approach will be presented that aims to assess the quality of outpatient clinics for children/adolescents with mental health problems and/or mental illness. The evaluation concept and evaluation results of two outpatient clinics will be reported that are both part of a NGO (located in Austria) that is specialized in supporting the development of those children/adolescents. The outpatient clinics offer both diagnostic clarifications and specific interventions for the children/adolescents and their parents within individual and group settings. In the sense of participatory evaluation (e.g. Cousins, and Whitmore, 1998), an evaluation team was formed in 2008 that developed an ecological feasible evaluation concept. A pre-post-follow-up design was chosen compromising self-estimations as well as estimations of others (parents, psychologists/therapists) and covers the main goals of the outpatient clinics: (1) positive changes according to the reduction of symptoms and (2) raising quality of life. For measuring the fist goal, standard test procedures from the clinical psychology were used, for the second goal the "Inventar zur Erfassung der Lebensqualität bei Kindern und Jugendlichen" [Inventory for Measuring Quality of Life of Children and Adolsecents] (Mattejat and Remschmidt, 2006). Data collection started in January 2009. In the following contribution cross sectional and longitudinal results according to the named evaluation goals will be reported for the first 3 years. This study comprises cross sectional data from 1,792 children/adolescents (35 % girls; 52 % between 5 and 9 years) who completed the initial diagnostic phase and longlitudinal data from 237 children/adolescents who finished at least one therapeutic intervention. The analysis showed significant positive effects for both evaluation goals. The derived implications for quality development will be discussed at the end of the contribution.

Keywords: Quality Assurance, Evaluation, Outpatient Clinics.

S2-02-04

Valuing the experience of child mental health care in Greece: moving forward in times of crisis

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The need to evaluate services in Child and Adolescent Mental Health (CAMH) settings is increasingly recognized and widely accepted, especially in times when resources are scarce and prioritizing CAMH services is essential. One of the main findings of the CAMH in the Enlarged European Union (CAMHEE) project (2007–2009) was that the majority of participating countries did not evaluate their CAMH policies, services and care, and even fewer did evaluate mental health promotion and prevention programs; exceptions were England, Norway and Belgium. In Greece, there has been no systematic effort to evaluate outpatient services provided by CAMH professionals, with very few exceptions. The Greek Ministry of Health has developed and put in action since 2011 a user satisfaction questionnaire on hospital outpatient general health care. This measure assesses the following domains: reception/environment (e.g. information provision, clean and calm environment), getting care quickly, quality of provided medical care (e.g. psychological support, behavior towards the users), quality of provided nursing care, administrative services (e.g. respect, friendliness, information provision), and overall services (attitudes towards the users, confidentiality). To our knowledge and similarly to CAMHEE findings, there is still no reported data on outpatient quality CAMH care at local, regional and national level in Greece. Possible barriers might include: lack of relevant culture and thus underestimation of and resistance towards the importance of evaluation in general, lack of infrastructure for implementation, conflict of priorities, and stigma. In this context, however, a few systematic, still fragmented, initiatives have been put forward in order to assure and enhance quality care. In particular, intervention impact and outcome, client and trainee satisfaction, process evaluation, and administrative accountability have been thoroughly assessed through a series of measures (e.g. quality circles, questionnaires, interviews, narrative data etc.) in some hospital or community CAMH settings in Greece. These efforts start to yield outcomes that may be useful for integrating and generalizing effective quality assurance tools into the present CAMH care system.

Keywords: Child and adolescent; evaluation; mental health care; quality assurance.

S2-02-05

Recent quality assurance studies in outpatient settings from Turkey

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Improving the quality, safety, and efficiency of health care is a goal shared by health care organizations and countries around the world. Health care providers everywhere must keep pace with globalization and match demand for high-quality, accessible care. In Turkey, beginning with 2004, individual performance system has been implemented in all health service providing institutions. An integrated model which has been developed according to needs of our country, enables easier access to the health care providers, increases the quality of services and the overall motivation of the healthcare staff. Report of Quality development and performance assessment implementation in hospital was published and updated by Department of Performance Management and Quality Development in Turkish Ministry of Health. Department of Performance Management and Quality Development in Turkish Ministry of Health is trying to develop some criteria for improving psychiatric care. Joint Commission International (JCI) stands alone as a consistent beacon for patient safety and quality improvement in the global community. The mission of JCI is to continuously improve the safety and quality of care in the international community through the provision of education and consultation services and international accreditation and certification. Created in 1994 by the Joint Commission, JCI has a presence in more than 90 countries today. In Turkey today, 39 private hospitals, 6 university hospitals and one state hospital are qualified by JCI accreditation, a one university hospital has the first ISO quality certificate.

Reference:

Quality development and performance assessment implementation in hospital Department of Performance Management and Quality Development Turkish Republic of Turkey, Ministry of Health, June 2008

Official Web Site of Joint Commision International (JSI).

Keywords: Quality, assurance, outpatients.

S2-02-06

Different aspects of quality assurance with outpatients in CAPP in Germany

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In Germany most children and adolescents with mental illness with mental health problems are treated in outpatient centres. Quality assurance is a very important factor in the management of these centres, in the sufficient process with the patients and the interpretation of results. There are also many discussions about quality assurance in outpatient institutions, because of increasing costs and lack of resources. The presentation will inform about the current situation of quality assurance in service delivery for children and adolescents in Germany. There are various programs of quality assurance, especially for structural quality like the Quality and Development in Practices (QEP) of the

National Association of Statutory Health Insurance Physicians (KBV) or others. Child and Adolescent Psychiatrists have published a special treatment pathway for children with severe developmental illness and epilepsy. The KBV has developed the AQUIK- Program with several indicators for children and adolescents, especially for ADHD and epilepsy. In the program "kjp-qualität" (http://www.kjp-qualitaet.de) in 2006 the outcome quality of the "treatment as usual" with outpatients in practices of CAPP was evaluated and now, in 2013, we have the first results of the evaluation of a coordinated treatment of patients with ADHD and their families. There is also a discussion for quality control of psychotherapeutic treatment of children and adults with mental illness in outpatient centres. The presentation will give an overview and show some results. The presentation will also inform about further projects that are planned for the quality assurance of the social psychiatric treatment in 2013 and the following years.

Keywords: Quality assurance, indicators, pathway outcome.

S2-02-07

Evaluation and quality assurance in service delivery for children and adolescents with mental health problems in the Netherlands

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In the past couple of years, a system for quality assurance has been developed by the Dutch Psychiatric Association. Based on self-evaluation it allows (child and adolescent) psychiatrists to evaluate both their quality of care and their systems for quality assurance. The current model is based on a self-evaluative process, taking place in a group of psychiatrists. The evaluation includes: patient care, processes and organization of care as well as cooperation within colleague groups. The process consists of several steps, all digitized to ascertain a small paper-load. First, psychiatrists due to reregister in the Dutch Medical Specialists Registrations Committee submit an online form to enroll in the process. Second, they fill in a number of questionnaires online. Third, results of the questionnaires are reviewed within the group of psychiatrists. It is optional for psychiatrists to use additional input gathered from other members of their multidisciplinary team. Fourth, the group of cooperating psychiatrists delineates a plan of improvement with SMART goals based on their self-evaluation. Finally, all questionnaires and plans of improvement are discussed and adapted during a visit of two specifically trained colleagues. At the end of the day, a report is written about the process including future recommendations. During the workshop, the current situation of quality assurance in service delivery for children and adolescents with mental health problems in the Netherlands will be presented. Comparisons with other European countries and future developments in light of changing demands made by society will be discussed.

Keywords: Quality assurance, evaluation, psychiatry.

S2-03-01

New findings in diagnostics and treatment of childhood and adolescent eating disorders

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In this symposium five well-known researchers in the field of eating disorders would like to present their recent results. Maria Rastam and Elisabet Wenz from Sweden will discuss the association of autism spectrum disorders and eating problems in childhood and adolescence and the overlap with anorexia and bulimia nervosa. Several recent reports point to the fact that autistic traits have an important impact on course and prognosis of anorexia nervosa. Johannes Hebebrand from Essen, Germany will present new neurobiological findings in eating disorders in "the post-GWAS era", such as changes in metabolic profiles during weight rehabilitation in anorexia nervosa. He will also discuss the impact of DSM 5-criteria on eating disorders research. Dasha Nicholls from Great Ormond Street, London, will review what is known about treatment response in children and adolescents, with a focus on the early stages of presentation, and suggest factors to consider in developing a stepped care model for child and adolescent eating disorders. Beate Herpertz-Dahlmann, from Aachen, Germany, will present the results of a large randomized multi-center controlled trial including 170 participants with first onset of anorexia nervosa to compare inpatient and day patient treatment. Day patient treatment was not inferior to inpatient treatment with respect to weight gain at the 1-year follow-up. Patients in the day patient arm tended to have better psychosocial outcomes All presenters will give insight in new developments to better understand eating disorder symptoms and their prognostic relevance as well as the importance of early intervention and treatment.

Keywords: Eating Disorder, Diagnostics, Treatment, Neurobiology, Day Patient Treatment.

S2-03-02

Towards a stepped care model for child and adolescent AN: the role of early intervention

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Most randomized controlled treatment trials for eating disorders (ED) show no differences, or differences that diminish over time, between treatment arms. The most likely explanation for this is that there is too much variability within the patient groups. For young people the evidence for the effectiveness of treatment is stronger than for adults, in that (probably) most young people (who have parental/carer support) with an ED (or at least with anorexia nervosa) should be offered family therapy (in conjoint, separated or multifamily format) as first line treatment on an outpatient (or if too sick, day patient) basis. In addition, research suggests that inpatient treatment is not best considered as the next step when outpatient treatment fails, and that specialist multidisciplinary Child and Adolescent ED services detect more cases, provide better continuity of care and reduce admissions. Clinicians need frameworks for practice based on research, clinical experience and the perspectives of patients and carers that facilitate problem solving at an individual patient level. Ideally a stepped care model will determine the level of care offered at each stage of presentation and provide clear thresholds for changing therapeutic direction or transfer to other services. Such a model may also facilitate a better understanding not simply of 'does treatment X work?' but 'for who does it work?' i.e. mediators and moderators of treatment response, thereby improving prediction of individual prognosis. This presentation will review what is known about treatment response in children and adolescents, with a

focus on the early stages of presentation, and suggest factors to consider in developing a stepped model for child and adolescent eating disorders.
Keywords: Feeding; eating disorders; stepped care model.

S2-03-03
Randomized controlled non-inferiority trial of day patient treatment in comparison to inpatient treatment among adolescent patients with anorexia nervosa

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Introduction: There are very few randomized, controlled studies exploring the effectiveness of treatment setting in adolescent Anorexia nervosa (AN).
Method: In this multicenter trial, 176 female adolescents with a first admission for AN were randomized to either continued IP or DP treatment after a three-week inpatient stabilization period. The treatment program did not differ between the study arms.
Results: DP was not inferior to IP with respect to weight gain at the 1-year follow-up ($p < 0.0001$). Patients in the DP arm tended to have better psychosocial outcomes. The number of treatment-related serious adverse events did not differ between the study arms.
Conclusions: DP treatment after short inpatient medical stabilization in adolescent patients with non-chronic AN was as effective as IP for weight restoration and thus may be a safe and less costly alternative to IP. Various prognostic factors as well as treatment acceptance will be analyzed and presented.
Keywords: Anorexia Nervosa; inpatient treatment; adolescent patients.

S2-03-04
Eating problems in childhood and the overlap with the autism spectrum disorders

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Eating problems are overrepresented in the early symptomatic neurodevelopmental disorders, especially the autism spectrum disorders. The autism spectrum disorders encompass developmental problems in three areas, social interaction, communication, and behavioural flexibility. Eating habits in autism include food refusal, pica, rumination, selective eating, and overeating. Selective eating is probably the most common eating problem in children with an autism spectrum disorder combined with a normal intellectual level. Selective eating can have detrimental effects on nutrition and general wellbeing of the child. Studies on the frequency of eating problems and their genetic and environmental background factors show a substantial overlap between early eating problems and the autism spectrum disorders. In the autism spectrum disorders the background factors to eating disturbances are more complex than in the general child population, and sensory abnormalities, ritualistic behaviours, and social communication problems all seem to contribute. The eating problems are often resistant to treatment, especially if underlying neurodevelopmental problems are neglected. Early eating problems in childhood may be a risk factor for the development of the clinically significant eating disorders, especially anorexia nervosa and bulimia nervosa, in adolescence and young adulthood. The clinical implications would be that the autism spectrum disorders should not be overlooked in children with eating problems. Conversely, eating problems should be considered in the early symptomatic neurodevelopmental disorders.
Keywords: Autism spectrum disorders, pica, rumination, selective eating, eating disorders.

S2-03-05
Entering the post-GWAS era in anorexia nervosa

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As in several other psychiatric disorders, genome wide association studies have not revealed loci involved in anorexia nervosa (AN). Most likely, the comparably small number of DNA samples represents the major limitation; at least one genome wide significant finding is the rule if 10,000 patient samples are included. However for AN, the two GWAS conducted up to today have in total included less than 5,000 patients; a joint analysis of the data sets has not yet been performed. Based on these two GWAS we can currently conclude that common variants with strong effect sizes are unlikely to account for the predisposition to AN in a substantial subgroup of patients. Complex disorders are due to a multitude of factors, clearly requiring large sample sizes. This entails the need to discuss future biomedical research venues for AN making use of cutting-edge technology. We in parallel need to increase sample sizes. We propose to focus on clinical research addressing diagnostic, therapeutic and prognostic aspects. Meta-analyses should be performed for diverse questions. In order to perform these, we need a consensus as to what questions require what data, so that these can be collected and analyzed by individual groups and at the same time feed a data base that allows interested researchers to perform meta-analyses. We need to realize that most of our biomedical research into AN pertains to state and not to trait markers; biomarkers are related to AN associated starvation and not to the mechanisms underlying the development of AN. An open discussion on biomedical research is not only important to focus our scientific goals but also to attract young scientists into our field.
Keywords: Anorexia nervosa, GWA.

S2-03-06
Eating disorders and social communication

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Eating disorders (EDs) including anorexia nervosa (AN), bulimia nervosa (BN) and ED not otherwise specified, mainly affect females and the onset varies from prepubertal to adulthood. AN is the most feared ED with increased mortality and a high risk of a chronic course. Social communication disorder (SCD) is an impairment of pragmatics and is diagnosed based on difficulty in the social uses of verbal and nonverbal communication in naturalistic contexts, which affects the development of social relationships. Social communication in EDs has recently become a hot research area and most data, so far, is derived from AN studies. Starvation per se can cause poor social skills but retrospective data has shown that a subgroup of individuals with AN has social communication problems already during childhood, before AN onset. In Gothenburg prospective community-based long-term follow-up studies of adolescent-onset AN have given us information on several aspects of social communication ranging from neuroanatomical correlates to neurocognitive profile and problems within the autism spectrum. Other studies imply that chronic cases of AN and BN exhibit a remarkably high prevalence of neuropsychiatric disorders including autism. Neuroimaging studies in AN individuals have shown deviant patterns similar to findings in individuals with autism spectrum disorders (ASD). The cognitive style in EDs resembles ASD regarding flexibility, central coherence, and mentalising and persist in many cases after recovery. Research is also indicating that a subgroup of males with ED exhibit SCD premorbidly and in adult years after recovery from the ED per se.

Keywords: Eating disorders, anorexia nervosa, bulimia nervosa, social communication, autism, neuropsychology.

S2-04-01

Pharmacogenomic studies in children and young people to elucidate biomarkers of suicidality: establishing the biological sampling methodology as a prerequisite

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Background: Our aim was to extract DNA from various sample types and conduct quality control analysis thereof, including genotyping using various technologies, in order to generate a DNA sampling Standard Operating Procedure (SOP) for genetic and pharmacogenetic studies in this age group.

Methods: At King's College London (KCL), 30 adult volunteers provided four different sample types (5 ml venous blood, buccal swabs ×10, 2 ml saliva using the Oragene kit, and 2.5 ml saliva using an in-house collection method) for DNA extraction. At the Central Institute of Mental Health (CIMH) in Mannheim, 30 adult volunteers provided three different sample types (buccal swabs × 10.2 ml saliva using the Oragene kit, and 10 ml saliva collected using an antiseptic mouthwash). Quality control (QC) analysis was conducted by quantification using various methods (UV spectrophotometry, NanoDrop 2000, fluorimetry), and by agarose gel electrophoresis. Genotyping at KCL included long-PCR, DMETPlus® microarrays, and methylation analysis using Sequenom, and at CIMH variable number tandem repeat (VNTR), single nucleotide polymorphism (SNP) genotyping, and methylation analysis using pyrosequencing was conducted. The University of Barcelona (UB) collected samples using the Oragene kit from 3 different age groups: children (3–7 years), adolescents (13–15 years), and adults.

Results: *QC analysis.* In samples collected by KCL, the mean concentration (by UV spectrophotometer) of DNA extracted from blood samples was comparable to that extracted from Oragene kits (227 ± 44 vs. 224 ± 184 ng/µl), and greater than that extracted from the latter two methods (72.5 ± 45 and 74.8 ± 60 ng/µl respectively). Agarose gel electrophoresis revealed a more variable molecular weight profile for buccal swab DNA in comparison to DNA extracted using the Oragene kit. CIMH similarly found that the Oragene kit performed the best out of their three sample types (total yield on NanoDrop quantification: 220.9 ± 119 µg vs. 1.4 ± 1 µg vs. 53.1 ± 46 µg). UB found that the extracted DNA concentration was adults > adolescents > children, and that the yield for children <12 years could be increased by employing a modified extraction protocol.

Genotyping: KCL genotyped 8 samples from the 4 sample types using the Affymetrix DMETPlus® Array, and found comparable call rates to 3 Affymetrix controls (99.68 ± 0.19, 99.51 ± 0.33, 99.56 ± 0.21, 99.13 ± 1.45 vs. 99.67 ± 0.03). CIMH genotyping of the *DAT1* intron 8 VNTR and SNP rs1006737 (using a TaqMan assay) was successful in all sample types. Methylation analysis at KCL and CIMH revealed an approximately equivalent number of assayable CpG sites, with tissue-specific methylation likely contributing to some minor observed differences in percentage methylation.

Conclusion: Although DNA extracted from a variety of sample types may be successfully used for genotyping on a variety of platforms, DNA derived from the Oragene kit performed best overall on quality control analysis. SOPs for collection of DNA using the Oragene kit in various age groups have been generated and will be presented.

Keywords: Pharmacogenomic studies.

S2-04-02

Innovative approaches in the study of paediatric drug-related suicidality

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Some children and adolescents have conditions that predispose them to suicidality. Medications used to treat medical or psychiatric conditions (some also associated with suicidal risk) may elevate suicidal thoughts or behaviours in a small proportion of patients.

There is insufficient data available about:

- safety of using many medications in children and adolescents who may have an illness that itself predispose them to suicidality
- time-course of medication related suicidality (MRS) and what happens to it over the long-term
- long-term safety of medications especially in paediatric populations that may represent a vulnerable group compared to adults.

The STOP project arises from the collaboration of a group of experts in paediatric psychopharmacology within the framework of the European Child and Adolescent Paediatric Network.

(ECAPN). The STOP study group (www.stop-study.com), Suicidality: Treatment Occurring in Paediatrics focusing on medication-related suicidality in children and adolescents has developed different means of assessment of suicidal signals, biomarkers and risk and resilience factors. These assessment tools aim to distinguish medicated related from disease related suicidality. This symposium will present these novel assessments of suicidal ideation and behaviours in children and adolescents that take into account potential medication-related effects and use web-based technologies, a preferred assessment option for a majority of children and adolescents.

Proposed Symposium presentations

1. The STOP studies: objectives and methods. *Paramala Santosh*
2. Cross-cultural validation of the STOP suicidality scales. *Itziar Flamarique, Josefina Castro*
3. Biomarkers of suicidality in children and adolescents. *Sarah Curran*

Keywords: Suicide, suicidal behaviors, suicidal ideations, medications, assessment.

S2-04-03
Cross-cultural validation of the STOP suicidality scales

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Objectives: To develop and validate two self-report internet-based questionnaires for suicidal risk in children and adolescents specifically addressed to capture de possible influence of medication side-effects (The STOP scale: Suicidality Treatment Occurring in Pediatrics). The development of the instruments is part of the grant project STOP that responds to a specific call of the FP7 Cooperation Work Programme "HEALTH.2010.4.2-3: Adverse drug reaction research''.
Method: The development of the instruments followed the Food and Drug Administration recommendations for Patient-Reported Outcome (PRO) instruments. The scales' items were based on information from previous literature, existing scales and experts' opinion and focus groups with adolescents and children were conducted to determine whether the concepts and items used were understood by patients. The final questionnaires were administered to a sample of adolescents and children through a web-based monitoring system to obtain data regarding test–retest reliability and internal consistency.
Results: Four instruments were developed, two instruments for adolescents (the STOP Side Effects scale and the STOP Suicidality scale) and more simplified versions for children between 8 and 11. The STOP Side Effects Scale assesses the possible association of suicidality and medication side effects and the STOP Suicidality scale assesses the different components of suicidality. 94 adolescents and 53 children with different diagnosis from several hospitals from Spain, Italy, France, Germany and United Kingdom answered the questionnaires. The STOP side effects scales showed adequate internal consistency and test–retest reliability (Adolescents: Cronbach's alpha:0.963; pearson's r:0.844; Children:Cronbach's alpha:0.881 and pearson's r: 0.802). The STOP suicidality scale for adolescents showed adequate internal consistency and test–retest reliability (cronbach's alpha = 0.96; r = 0.865). The results were similar for each country analyzed separately. The STOP suicidality scale for children showed good internal consistency (Cronbach's alfa = 0.962), but the test–retest reliability was not (−0.012). This could be explained by the low number of children with suicidal ideation in this sample (n = 5).
Conclusions: The newly developed scales (The STOP scales) assess suicidality and its possible relation with medication side effects. The instruments for adolescents show high internal consistency and test–retest reliability like the Side effects scale for children. The suicidality scale for children shows good internal consistency, but low test–retest reliability. Countries analyzed individually show similar results.
Keywords: Suicidality scale, children and adolescents, Pediatrics.

S2-04-04
The suicidality: treatment occurring in paediatrics (stop) studies: objectives and methods

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Background: The emergence of suicidality in patients receiving drug treatment is of concern because of the overall burden and the possible link with completed suicide. The lack of uniform requirements for defining, detecting and recording suicidality and the presence of disease related confounders create major problems. Unlike Psychopathology-Related Suicidality, the time-course of Medication-Related Suicidality may be associated with possible differences in drug pharmacokinetics; abrupt onset; absence of suicidality prior to start of medication; and emergence of suicidality related co-morbidities after treatment.
Methods: The Suicidality: Treatment Occurring in Paediatrics (STOP study) (http://www.stop-study.com), is an EU FP7 funded project that focuses on developing a web-based comprehensive methodology for the assessment and monitoring of suicidality and its mediators in children and adolescents. The project has 12 WorkPackages (WPs) and involves academic departments from 7 EU countries. WP1 involves project management; WP 02 involves signal generation and meta-analysis on medication-induced suicidality; WP3 deals with developing standard operating procedures (SoPs) for biological markers of suicidality; WP4 and 5 developed the STOP Suite of Measures; and WP6 deals with the E-monitoring and datacapture for the project. The STOP Measures are then validated in children and adolescents being started on Risperidone (WP7), Fluoxetine and Cognitive Behaviour Therapy for depression (WP8), Montelukast and other Bronchodilators in Bronchial Asthma and respiratory allergies (WP9); and WPs 10, 11 and 12 deal with Training, Ethics and Dissemination respectively.
Results: WP2 has developed a novel methodology using data from spontaneous reporting systems, including the WHO ICSR database to identify all signals of drug-induced suicidal behaviour/suicidality; conducted a meta-analysis and made recommendations for standardised reporting of medication-associated suicidality. WP3 has developed the SoPs for biological parameters; WP4 and 5 have developed the STOP Suite of Measures (the STOP Suicidality Assessment Scale; the STOP Medication Side-Effects Scale; the STOP Risk and Resilience Scale); WP6 used the HealthTracker^{TM} (a paediatric web-based health outcome monitoring system) to develop the web-based suicidality monitoring system and the information obtained has been used to computer-generate classification of suicidality using the Classification of Suicide-Related Thoughts and Behaviour (Silverman et al., 2007) and the Columbia Classification Algorithm of Suicidal Assessment (C-CASA) (Posner et al., 2007). The STOP measures are currently being tested in WP7, 8 and 9 in 3 paediatric observational trials (risperidone in conduct disorder or any other condition; fluoxetine or CBT in depression, and montelukast and bronchodilators in bronchial asthma).
Conclusion: The standardised and validated web-based STOP Suite of Measures will be available for use in clinical, pharmacovigilance, epidemiological, observational, and registration trials and will significantly improve our understanding of medication and psychopathology related suicidality.
Keywords: Suicidality; HealthTrackerTM, Medication-Related Suicidality; Risperidone; Fluoxetine; Montelukast.

S2-05-01
The relationship between maternal depression (ante natal and pre-school stage) and childhood behavioural problems

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Objective: This study aims to determine if there is a relationship between antenatal depression and maternal depression in the following three to 4 years. Secondly, to establish if there is a relationship between maternal depression and behavioural problems with the pre-school child. Thirdly, to investigate if social parameters are correlated with maternal health and childhood behaviour.

Method: In a longitudinal study, a sample of women were screened for depression at the antenatal stage and followed up 4 years later. Mothers were screened for depressive illness on both occasions. Children's behaviour was assessed at 4 years. Social parameters were also measured at the pre-school stage.

Result: Depression at the antenatal stage was not found to be significantly related to depression at the pre-school stage. The existence of a behaviour problem was not significantly related to the depressive state of the mother antenatally, however a currently depressed mother is approximately six times more likely to have a child with behaviour problems than a mother who is not depressed. Social factors were also assessed and found to correlate with maternal depression.

Conclusion: In managing a child with behavioural problems, the child psychiatrist should consider the mental state of the mother. The social world of the individual would appear to be important and should not be ignored when treating either a child with behavioural problems or an adult with depression.

S2-05-02
Is suicidal behaviour in an accident and emergency representative of community rates?

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Parasuicide is almost always analysed using hospital data but is this misleading? This small scale study suggests that hospital data can be extrapolated to the wider community. Study limitations were sample size, and GP non-responders.

Study: The study analysed parasuicide over a 3 month period in a new area of Dublin which was a 'green field' satellite town, with poor public transport, and low income; those studied were unlikely to go outside their catchment area for services. Community sources of data were used as the starting point. Since the services (which were sparse) were listed in a local directory, these were all easy to contact by post or telephone with an extremely short questionnaire. Approximately 65 % of GPs responded on first approach. Alcohol services (and clergy) declined to cooperate for reasons of confidentiality. All other services—a rather heterogeneous group—(public health nurses; therapists of varying degrees of orthodoxy; etcetera) at least felt they could let us know if they had dealt with para-suicides in the study period; they had not. A second and a third and a fourth trawls of non-responding GPs inched the GP response rates up to 80–85 %; in general, GPs who responded were previously known as willing to co-operate with external agencies. Hospital data was then compared with community data.

Conclusions: The epidemiological profile of parasuicide in accident and emergency in a socially deprived area of Dublin corresponded to the expected profile (predominately overdoses in young people); exhaustive trawling of community sources of information revealed only a miniscule number of cases not 'caught' by the hospital data; so community incidence of parasuicide can be extrapolated from hospital data.

Keywords: Parasuicide incidence accident and emergency representative community rates.

S2-05-03
Prevalence of child psychological problems in an Irish population

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Introduction: At the time of this study, in 1989, it was recognized that child behavioural problems and psychiatric impairment in children was not uncommon. (Rutter et al. 1979) Studies in Ireland and elsewhere suggested that prevalence of psychological disorder was higher in urban than rural populations, in lower socioeconomic groups, in deprived environments and where there is a high prevalence of parental problems. (Gath et al. 1972; McNestry et al. 1988) This present study aims to replicate the Isle of Wight and Inner London study (Rutter et al. 1979), in a largely urban area in Dublin Ireland.

Aim: To define the prevalence of psychological problems in a given population in Ireland, and to assess the significance of educational attainment, IQ and family circumstances in relation to these problems.

Method: All, (2029) fourth class pupils (10 and 11 years olds) within a given area were screened for Psychological disorder, reading ability and intelligence quotient, using Rutters B2 teachers scale, (Rutter 1967) the MICRA-T reading attainment screening test, (Wall and Burke 1988) and Standard Raven's Progressive Matrices, (Raven 1983) respectively. From this population one in three of those with a B2 score greater than 9, and one in sixteen controls, with a score less than 9, were selected for individual study. Using the IOW/IL Parental Interview of Child'sPsychiatric State, (Graham and Rutter 1983) 185 mothers were interviewed about their child. Mothers mental sate was also assessed using the Malaise Inventory, (Rutter 1970) and Goldberg's Clinical Interview. (Goldberg and Blackwell 1970). Results are analyzed using Chi squared tests and discriminant analysis.

Results: Of the 2,029 studied, 16.6 % were found to have a behavioural deviance. 70 % of this was due to conduct disorder; 23 % to emotional disorder and 6.6 % were mixed. Children from disadvantaged areas had twice the prevalence of abnormality. Following the more detailed interview 62 of the 185 children assessed were found to have a disorder, this gave a 61.6 % true positive rate, and 18.3 % false negative rate, giving an overall prevalence of psychiatric disorder in this group of 25.4 %. 30 % of the mothers in the study were clinically depressed. There was a strong correlation between maternal depression, disadvantage and children's disorder.

Discussion: This presentation will present the findings from this 1989 Irish study. At that time the authors made a number of recommendations. Many of the recommendations have been introduced, and the presentation will comment on the impact these introductions have had on twentyfirst century Ireland.

Keywords: Child behavioural problems, psychiatric impairment, Irish, epidemiology.

S2-05-04
Epidemiological studies in child and adolescent psychiatry in Ireland

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These studies have taken place particularly from the beginning of the 1980s and involved most age groups. Some were general population studies with numbers up to 2,000 and others were clinical based or school based. Of the 2,026 general population pupils studied 16.6 % were behaviourally deviant (20 % boys, 11 % girls). Children in disadvantaged schools were more than twice as likely to be deviant as those in privileged schools. In the formal psychiatric study (N + 185) of children and parents there was significant associations between child psychiatric illness and parental mental illness, absent confidant, severe dissatisfaction with leisure, income, marriage and accommodation. Other studies focused on anxiety, depression, ADHD, behaviour and conduct problems, eating disorders including the first study of ADHD in a prison population. Two other studies focused on the effects of road traffic accidents on children and there was also a study of the effect on children of surviving a bomb that killed many people. The use of drugs in a sample of Irish children was studied in association with similar samples in the UK, Germany, Holland and Italy.

Keywords: Child Psychiatry, Epidemiology, Ireland.

S2-05-05
History of child psychiatry in Ireland

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This paper will focus on the development of child psychiatry and the place of the various professionals in the multi-disciplinary team including child psychiatry, social work, psychology, speech and language, child care workers as well as family and individual therapists from Dr. Maureen Walsh 1952 and Dr. John Stack 1952 to the present date. It will focus initially on the development in Dublin and later throughout the country. In 1952 WHO approached St. John of God services to provide the first Irish Child Psychiatric Service. The initial orientation was psychoanalytic. Professor John McKenna was the first Psychologist and Irene Mulvany the first Social Worker in 1955. The role of the Social Worker in Child Psychiatry initially was in prioritising referrals, carrying out pre-assessment home visits, cataloguing the child's developmental milestone, participating in the child psychiatric assessment and meeting parents, planning appropriate intervention with the Psychiatrist, working with parents and occasionally with the child, following up families who did not respond to appointments, assessing resources. The second wage of influence on child psychiatry was family systems based theory up to about the 1980s when neurobiologic approaches began to gain the ascendency. The key personnel in the middle historical period include Paul McCarthy, Paul McQuaid, Gerry O'Neill, Paddy Murray in Cork and Anthony Carroll in the West of Ireland. Considerably later speech and language therapists joined the team as did child care workers. The current practice of child psychiatry is eclectic.

Keywords: History, Child Psychiatry, Ireland.

S2-06-01
Mental health care research in Germany: sociodemographic characteristics of the Nordbaden database

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Objectives: The Nordbaden Project was initiated in 2003 as a cross-sectional analysis of the real-world prevalence, resource use, and direct medical costs associated with attention-deficit/hyperactivity disorder (ADHD). Meanwhile, the project has evolved into a longitudinal patient-centered study, allowing to follow-up identified patients over prolonged periods of time and to study the impact of moderators (e.g., coexisting conditions) and mediators (e.g., specialist involvement) on the quality and cost of health care services provided. The database enables retrospective health care utilization studies based upon administrative claims data of the *Kassenaerztliche Vereinigung* (KV) in Nordbaden ("*Regierungsbezirk* Karlsruhe"), an above-average affluent region in South-western Germany.

Methods: The database covers the complete regional population enrolled in statutory health insurance (SHI; > 2.2 million lives). Based upon prospective data analysis plans, the vdek group of sick funds within SHI offers prescription data for the subsample of patients insured by its member companies (850,000 lives in year 2009). Here, sociodemographic data of the study sample are compared to national averages (year 2009) to assess its representativeness.

Results: The demographic structure (by age and gender) of the Nordbaden sample (including its vdek subgroup) compares well to the national population. However, regional population density is much higher (396/km^2 vs. 229/km^2 in 2009), and GDP per capita (34,800€ vs. 29,300€) as well as the rate of persons insured by private sick funds (instead of SHI: 18.2 vs. 14.6 %) exceed the national average. There are also relatively more health care specialists in Nordbaden (for example, 11,400 persons per mental health care specialist and 3,200 per psychotherapist) compared to Germany (17,200 and 3,900, respectively), whereas the relative number of general practitioners is somewhat lower (with 1,500 persons per g.p. vs. 1,400). The number of patients with a diagnosis of ADHD increased from 11,887 in 2003 to 21,287 in 2009. A control group was defined, matched by age, gender, and type of statutory health insurance.

Conclusions: The Nordbaden sample constitutes a well-characterized study population. Compared to Germany as a whole, the region is somewhat more affluent and the number of medical specialists (relative per population) exceeds the national average. Interpretation of observations should take into account the well-documented differences between region and nation.

Keywords: Attention-Deficit/Hyperactivity Disorder (ADHD) Epidemiology (/Prevalence) Economics (/Cost).

S2-06-02
The medical cost attributable to ADHD in Nordbaden/Germany: a study from a health care payer's perspective based on claims data

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Objectives: To assess the direct medical costs attributable to a diagnosis of attention-deficit/hyperactivity disorder (ADHD), comparing patients to controls in Nordbaden/Germany.

Methods: The patient-centered Nordbaden database for years 2003 to 2009, integrating data from *Kassenärztliche Vereinigung Baden-Württemberg* (KVBaWue, the organization of physicians registered with statutory health insurance, "SHI") and a major SHI association (vdek) as to allow patient-centered evaluation, was used to determine health resource utilization and direct medical cost covered by SHI. Patients with a diagnosis of ADHD were compared to a control population matched by age, gender, and type of statutory health insurance ("SHI"). Here we report on data for years 2006–2009, as nonpharmacological therapy-related cost data were not fully available for earlier years.

Results: Average total cost per ADHD patient increased from €897 in 2006 to €1,006 in 2009 (controls, €261 in 2006 and €337 in 2009). Average annual cost per patient correlated positively with age, and female patients were generally more costly than males (in total as well as regarding costs attributable to ADHD). Increasing severity and comorbidity were also associated with higher costs per patient. Physician services constituted the major cost component (on average, overall, €653 per case in 2009), followed by pharmacological therapy (€330 in 2009). Detailed quantitative data will be provided.

Conclusions: The average excess cost (from the perspective of German SHI) per ADHD patient (over all age groups and irrespective of gender, compared to matched controls) was €669 per year in 2009. Although any extrapolation from the regional to the national level should be treated with caution, this data from Nordbaden suggests an approximate *dimension* of annual outpatient treatment costs attributable to ADHD in the magnitude of (roughly) €450 million (for year 2009), from the perspective of Statutory Health Insurance (SHI).

Discussion: This compares to total annual expenditures for services ("*Leistungsausgaben*") of the German SHI system of €160 billion in 2009. Of note, the figure (calculated bottom-up using actual micro-data, not estimates) is substantially lower than some recently published projections. This discrepancy clearly warrants further investigation, including data sources, their reliability, representativeness, and method of combination, broader research methodology, as well as an examination of vested interests potentially influencing design and presentation of studies.

Keywords: Attention-Deficit/Hyperactivity Disorder (ADHD) Epidemiology (/Prevalence) Economics (/Cost).

S2-06-03

The evolving treatment patterns for ADHD in Nordbaden/Germany: a retrospective study based upon administrative data, years 2003–2009

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Objectives: To explore the evolving treatment patterns for patients with attention-deficit/hyperactivity disorder (ADHD) in Nordbaden/Germany, in particular psychostimulant prescriptions in children and adolescents.

Methods: The complete claims database of the organization of physicians registered with statutory health insurance [SHI] (*Kassenaerztliche Vereinigung*, KV) in Nordbaden/Germany was available for analysis, covering the total regional population enrolled in SHI (>2.2 million). The dataset for years 2003–2009 was reorganized as to allow patient-centered evaluation. For calendar year 2009, 21,287 patients with ADHD ["hyperkinetic disorder", HKD; ICD-10 codes F90.0 or F90.1] (male, 15,108; female, 6,179; including 5,931 patients or 27.9 % [male, 4,582; female, 1,349] with coexisting conduct disorder [HKCD; F90.1 or a combination of F90 and F91]) were available for analysis; of those, 846,677 patients were insured by a vdek member company.

Results: Preschool children (age 0–5 years) were prescribed medication in very rare cases (1.6 % in 2009) and after an average lead time of more than 1 year only. Most received some form of non-pharmacological therapy or were left untreated (42 %). In contrast, 41 % of children (age group 6–12 years, continuously increasing from 32 % in 2003) and 54 % of adolescents (age group 13–17 years, rate remaining stable since 2006) were prescribed either stimulant (methylphenidate, MPH, or amphetamine) or nonstimulant (atomoxetine) drugs. Males and patients with concomitant conduct disorder were more likely to receive medication treatment. Modified-release MPH formulations were more widely used than immediate-release MPH. Overall use of medication increased steadily, from 32.2 % of ADHD patients in 2003 to 39.9 % in 2009, whereas its rate decreased over time in adult patients (declining from 38 % in 2003 to 26 % in 2009). Upon identification and individual review of all prescriptions of ADHD medication for members of the control group, no evidence could be found supporting potentially inappropriate use of stimulant medication. Further data on average dosing, therapy duration, switches and augmentation will be presented by age group, gender, severity, and comorbidity status of patients as well as by category of treatment.

Conclusions: Treatment patterns were highly age and gender specific. Except for preschoolers, therapeutic management of patients with ADHD relied heavily on drug treatment. No evidence was found for inappropriate prescribing of ADHD medication.

Keywords: Attention-Deficit/Hyperactivity Disorder (ADHD) Epidemiology (/Prevalence) Economics (/Cost).

S2-06-04

The rising administrative prevalence of ADHD in Nordbaden, Germany, and specialist involvement in health care provision

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Objectives: To determine the prevalence of attention-deficit/hyperactivity disorder (ADHD) in Nordbaden/Germany, to put this data in the context of mental health morbidity, and to assess specialist involvement in health care provision.

Methods: The complete claims database of the organization of physicians registered with statutory health insurance [SHI] (*Kassenaerztliche Vereinigung*, KV) in Nordbaden/Germany was available for analysis, covering the total regional population enrolled in SHI (>2.2 million). The dataset for years 2003–2009 was reorganized as to allow patient-centered evaluation.

Results: Uncomplicated hyperkinetic disorder (HKD, F90.0) was the number one reason for contacts with health care providers in children (age group 6–12 years, 7.2 %) and adolescents (13–17 years, 3.7 %), reported more than twice as often as the next frequently diagnosed mental health problems, namely various developmental, speech, and adjustment disorders. In preschoolers, speech and developmental problems were diagnosed more frequently than HKD (1.0 %). From 2003 to 2009, the administrative prevalence of ADHD (HKD/F90.0 and hyperkinetic conduct disorder, HKCD/F90.1, combined) increased by 79 %, i.e., from 0.53 % in 2003 to 0.95 % (overall; 6–12 years, 8.0 %; 13–17 years, 4.2 %) in 2009. Notwithstanding lower absolute numbers, ADHD prevalence in adults increased more than fourfold, from 0.04 % (2003) to 0.17 % (2009). Overall, the rate of ADHD patients seen at least once by a CNS specialist (physician) increased from 42.0 % in 2003 to 49.1 % in 2009; the rate of those seen at least twice during the calendar year increased from 26.4 % to 33.2 % (for age group 0–5 years, from 9.1 % to 11.1 %; 6–12 years, from 27.4 % to 33.7 %, 13–17 years, from 30.3 % to 33.1 %, 18+ years, from 26.4 % to 33.2 %. Patients with HKCD were more likely to be seen by CNS specialists than patients with HKD only. Most children (in 2009, 84.4 %) and adolescents (61.0 %) were seen at least once by a pediatrician. The rate of patients seen by psychotherapists remained stable at ~10 %. Within provider groups, health care for patients with ADHD was highly concentrated. Each child and adolescent psychiatrist treated, on average, 231 patients with ADHD.

Conclusions: By 2009, ADHD represented the leading mental health related cause of service utilization among children and adolescents in Nordbaden. Despite a moderate increase since 2003, CNS specialist involvement in health care provision for patients with ADHD remains relatively low.

Keywords: Attention-Deficit/Hyperactivity Disorder (ADHD) Epidemiology (/Prevalence) Economics (/Cost).

S2-06-05

Attention-deficit/hyperactivity disorder (ADHD), 2003-2009: a longitudinal analysis of prevalence, health care and direct cost based upon administrative data from Nordbaden/Germany

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Background: Attention-deficit hyperactivity disorder (ADHD) is believed to be associated with a substantial burden, both from the perspectives of patients, families, providers and payers of health care, and society as a whole.

Objectives: To assess recent trends in real-life -life diagnosis rates of ADHD, involvement of specialists in provision of health care for patients with ADHD, mental health and somatic comorbidity profiles, treatment (including potentially inappropriate prescriptions of psychostimulants) and direct medical cost from a payers' perspective.

Methods: To this end, we established the ***Nordbaden Project*** (its core consisting of an integrated patient-centered administrative database capturing the total population in Nordbaden insured by SHI, more than 2.2 million lives), combining the complete medical claims data of the *Kassenärztliche Vereinigung* (KV, i.e., the organization of physicians registered with statutory health insurance, SHI) in Nordbaden/Germany, and reimbursement data of a major SHI organization, for the time period from 2003 to 2009.

Results: Most frequently diagnosed mental health problems in 2009 were depressive episodes, with an overall administrative 12-months prevalence rate of 8.3 %; unspecified somatoform disorders, 4.8 %; harmful use of tobacco, 3.4 %; neurasthenia, 2.3 %; and adjustment disorders, 2.2 %. Hyperkinetic disorder was the number one reason for contacts with health care providers in children (age group 6–12 years, 7.2 %) and adolescents (13–17 years, 3.7 %). In preschoolers, speech and developmental problems were diagnosed more frequently than HKD (1.0 %). From 2003 to 2009, the administrative prevalence of ADHD (HKD or HKCD) increased by 79 %, i.e., from 0.53 % in 2003 to 0.95 % (overall; 6–12 years, 8.0 %; 13–17 years, 4.2 %) in 2009. ADHD prevalence in adults increased more than fourfold, from 0.04 % (2003) to 0.17 % (2009). The number of patients with ADHD in Nordbaden increased from 11,887 in 2003 to 21,287 in 2009 (peak prevalence among 9-year old boys, at 13.7 % in 2009). For further analyses, a control group was matched 1:1 by age, gender, and type of health insurance (within the SHI system). Age and gender-specific comorbidity patterns were in line with data from epidemiological studies and did not change during the study period. Overall, 27.9 % of patients had concomitant conduct disorder, 25.7 % internalizing and 32.8 % externalizing (hereof, 10.6 % both internalizing and externalizing) psychiatric comorbidity (data for calendar year 2009). Although the share of ADHD patients seen by a CNS specialist increased during the study period, the majority of patients were treated by pediatricians and general practitioners; most patients (52.9 %) had no contact with CNS specialists (data for year 2009). Only 26.4 % of patients had been seen at least twice by a CNS specialist in 2003; this rate increased to 33.2 % in 2009.

S2-07-01

Common sense suggests we all need to work together

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Looked-after children have complex and multiple needs, and are at higher risk of developing mental health problems. They are more likely to be diagnosed with a range of internalising and externalising disorders, which are more prevalent and more serious in older looked-after children and in residential care than in foster care. Mental health services are not always available to meet these needs adequately, due in part to how the different professions working with looked-after children interact. Furthermore, crisis intervention can be more common and less effective than early intervention. This project offers a timely representation of the views of service users and practitioners as services in Ireland are currently being restructured with the introduction of the Child and Family Support Agency and the Assessment, Consultation, and Therapy Service. The aims of the present study were to identify the mental health needs of looked-after children and to identify the barriers to optimal provision, with a view to informing the development of the new service structures. Following consultation with young people on the design of the project, interviews were conducted with eight young people aged 18–27 about their experiences in care and in the transition to aftercare with a specific focus on mental health needs and services. In parallel, focus groups and follow-up interviews consulted 24 professionals including psychiatrists, psychologists, social workers, speech and language therapists, teachers, and those who work in the youth justice system. Key themes will be presented drawing on these interviews with young people who have had experience of the care system and on the focus groups and interviews with relevant professionals. The outputs of the research also include a needs analysis, a review of best practice in service provision, an analysis of human rights issues relating to looked-after children, and a cost-benefit analysis of current services. Finally, recommendations relating to how we can best meet young people's needs will be outlined.

Keywords: Mental health, Looked-after children, Consultation, Service provision.

S2-07-02

The Jigsaw model for youth mental health systems transformation in Ireland: current status and emerging findings

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Headstrong's *Jigsaw Model for Youth Mental Health Systems Transformation* is an early intervention model designed to provide direct support to young people, strengthen the capacity of systems that surround young people, and engage with communities around youth mental health issues. It responds to a need for multi-systemic change efforts that promote new service paradigms, improve quality, foster responsiveness, and enhance resource utilisation and integration. Emerging process and outcome findings will be discussed in the context of a comprehensive systems evaluation strategy. As of January 2013, 3,645 young people (ages 12–25) have been served within youth-friendly community settings using brief intervention approaches. Extensive training and systems-re-engineering has also occurred within eleven participating sites (counties), local and national efforts have been informed by extensive involvement of young people, and a national advocacy effort has brought youth mental health issues to the forefront of the national conversation. This presentation will provide an overview of the model and its current status, followed by a discussion of emerging findings in a "flagship" community which has been in operation for several years and about which the most extensive data are available. Specifically, the talk will highlight the needs and characteristics of young people being served, risk identification and management, patterns of service delivery, implementation fidelity, preliminary outcomes (goal attainment, satisfaction, follow-up), and impact on the broader system of services and supports (including a network analysis of provider organisations and integration with more specialised services). Accomplishments, learning, and ongoing challenges will also be discussed.

Keywords: Systems Change, Early Intervention.

S2-07-03

Aware: A proactive approach to supporting people with depression and their families

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Aware was set up in 1985 by Professor Patrick McKeown with three objectives:

1. To *educate* the public on the nature, extent and consequences of depression.
2. To provide *emotional and practical support* to those affected by depression and related disorders.
3. To support research into the development and treatment of depression and related issues.

Since 2010 Aware has undergone a rigorous development process which has included external evaluation and strengthening and restructuring of its key services: the Help Line and the Support Groups as well as the introduction of two new services based on cognitive behavioural principles to help adolescents and adolescents learn life skills: The Beat the Blues and the Living Life to the Full programmes. Aware now has 20 staff and 360 trained volunteers and is recognised nationally for the services it provides. The organisation has evolved proactively. Some of the changes have not been easy, but the consensus is that it was necessary. This presentation outlines a brief history of Aware, the rationale for the developments, the steps involved, the challenges which were overcome and the evidence supporting a proactive approach to supporting people with depression and their families. The Aware website receives over 300,000 unique hits each year and the Helpline receives over 15,000 calls. Over 30,000 students and 1,000 adults attended Aware's courses and Support Groups in 2012 with research findings indicating extremely positive results. Aware is proud of the work it is doing and looks forward to presenting this to colleagues with a view to focusing on how a proactive approach can effectively help people with depression.

Keywords: Depression, proactive, adolescents, adults, research, services.

S2-07-04

Increase in child behaviour problems among Brazilian preschoolers: a comparison of the 1993 and 2004 Pelotas birth cohorts

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Objective: There is an increasing number of reports on time trends in child and adolescent psychological problems but none from low and middle income countries and very little covering the pre-school period. The aim of the present study was to examine the time trends in behavioural and emotional problems among children aged 4 years over an 11-year period with data from two population based birth cohort studies carried out in the same Brazilian city: the 1993 and 2004 Pelotas cohort studies. Additionally we aimed to investigate whether changes in demographic or social characteristics accounted for the overall trends. **Methods:** We analyzed data from the 1993 and 2004 Pelotas birth cohort studies from Brazil. A sub-sample of four year olds from the 1993 cohort (634) and all four year olds from the 2004 cohort (3750) were assessed for behavioural and emotional problems through mother report using the same measure, Child Behaviour Checklist (CBCL). Similar methods were used in these two population-based cohorts, and response rates were above 90%. **Results:** We found a significant increase in CBCL total problems and externalizing mean scores over the eleven-year period: mean values (SE) CBCL for total problems scores were 27.9 (0.8) and 34.7 (0.3) and for externalizing scores, 12.4 (0.4) and 15.5 (0.1) in 1993 and 2004 Pelotas cohorts, respectively. Aggressive behaviour syndrome score showed the largest increase: means (SE) of 9.7 (0.3) and 13.0 (0.1) in 1993 and 2004 studies. No significant differences were found between boys and girls for almost all CBCL scores. Changes in familial, maternal and child's characteristics did not help to explain the observed increase in child behaviour problems during the study period. **Conclusions:** Our findings provide evidence for a substantial increase in preschool behavioural problems among children in Brazil over an eleven year period. Given the potential long-term effects of childhood psychological problems on an individual's social and psychological life course, early identification of such problems must be a key priority for mental health services.

Keywords: behavioural problems, externalizing disorders, longitudinal studies, preschool children

S2-08-01

Adolescent depression: quality of care in three European Countries: Netherlands, Norway and Spain

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Depressive disorders occur in 4–8 % of the adolescents and are associated with a high burden of disease, comorbidity, a high risk of recurrence and a heightened risk for development of other problems, like social problems, juridical problems, learning problems, substance abuse, negative life events, physical problems, teen pregnancies and suicide. Evidence based treatment of Depression focuses on medication, Cognitive Behavioural Therapy and Inter Personal Therapy. Comorbidity might require additional interventions, which may differ from country to country, depending on available therapeutic options. This workshop will centre on a case presentation of an adolescent with depression. Each presenter, an expert in depression diagnosis and treatment, will discuss the current approach to evaluation and treatment in his or her country, reflecting guidelines, standards and/or state of the art practices in the countries represented. The costs and availability of treatment and therapists are taken into account. Possible moderators and mediators of treatment are also discussed. Three countries are represented; Netherlands, Norway and Spain. The Netherlands have a well-developed mental health system spread all over the country, which is available to adolescents at almost no costs. E-mental health, with and without face-to-face contact with the therapist, is also used to treat depression in adolescents. Within Norwegian Child and Adolescent Mental Health Services (CAMHS), depressive episodes are among the most common diagnosis given and reports indicate an increased number of youth referred with depressive symptoms. Overall, little is known about the quality of care provided and the outcome of treatment for depressed children and adolescents in Norwegian CAMHS. In Spain, adolescent depression is a highly prevalent disorder (4–14 %); with a negative impact on family, school and social areas; extremely comorbid; very persistent; and that receives an insufficient attention. There have been few studies in adolescence, compared with other disorders, but since 2009 the trend seems to change with the dissemination by the Spanish National Health System of the Clinical Practice Guideline on Major Depression in Childhood and Adolescence, a first step to improve the clinical decision-making based on scientific evidence. Similarities and differences in guidelines and state of the art approach will be highlighted, with ample time for discussion from attendees. Controversial issues concerning comorbidity, parent-involvement, other treatment approaches, new developments, medication etc. can be discussed.

Keywords: Quality of Care, Guidelines, Evidence-based, depression, adolescents, diagnosis, treatment, psychotherapy.

S3-01

Eating disorders: current controversies and challenges

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The field of eating disorders is expanding rapidly as the challenge of ever growing numbers suffering from eating disorders worldwide is recognised. In burden of disease terms, eating disorders are now the second leading cause of mental disorder disability in young females in some countries. Yet there are many areas where consensus is lacking, making a global strategy for tackling eating disorders a distant prospect. Identifying eating disorders as 'brain disorders' has gone some way to reducing stigma and shame and increasing neuroscience research funding, but risks overshadowing efforts to address the psychosocial and cultural contributions to eating disorders. Current controversies for the field include the value of prevention and early recognition (screening); the dissemination of empirically based manualised treatments vs. traditional child mental health multidisciplinary models; the central role of the family in treatment balanced against family distress and burden; and the cost-benefit analysis of inpatient (residential) hospitalisation for severe cases. The expanded definition of eating disorders, and the bringing together of feeding and eating disorders within the DSM 5 and ICD 11 classifications has implications for how service providers will need to develop and deploy resources. This presentation will review and discuss some of the key research findings contributing to these debates, and will argue that the focus should be on delivery of effective targeted intensive early interventions for high risk cases rather than on prevention or on those with established illness, for whom most studies have shown no benefit for intensive treatments over psychological support and crisis management.

Keywords: Eating disorders; child; adolescent; prevention; early intervention; treatment; neuroscience.

S3-02

The antisocial adolescent brain

Ian Goodyer

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Conduct disorder is a major cause of morbidity whose neural basis is becoming more revealed through the application of structural and functional imaging techniques. This lecture will describe the Cambridge Teenage Behaviour Study and the observations made from cross sectional investigation of teenage males and females with childhood and adolescent onset forms of this heterogeneous behavioural syndrome. Recent work on the vulnerable teenage brain and the role of early childhood adversities will be used to illustrate the possible neural effects that may accrue from childhood and result in a bias toward antisocial behaviour in the adolescent years.

Keywords: Conduct disorder; morbidity; imaging.

S3-03

Bio-psycho-socio-spiritual model in child psychiatry S. Korea

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Objectives: The objective of this presentation is to provide a Bio-Psycho-Socio-Spiritual model in the field of child psychiatry based on my personal experience in child psychiatry for about 30 years.

Methods: In this paper, the author reviewed his personal experience retrospectively and formulated his own research experience based on the developmental concept.

Results: The review on my research activities has shown 8 definitive developmental phases. *Firstly*, the reliability and validity studies for objective assessment for child psychiatric disorders has been conducted. *Secondly*, research on the phenomenology has been conducted. *Thirdly,* biochemical studies have been conducted. *Fourthly*, research on the brain imaging have been conducted. *Fifthly*, genetic studies have been conducted. *Sixthly*, Researches on the pharmacotherapy have been conducted. *Seventhly* integrative studies such as relationship between genetic polymorphism and brain imaging, or drug response have been conducted. *Eightly*, research on cognitive-behavior therapy have been conducted. *Ninthly*, research on the spiritual issues have been conducted.

Discussion: The whole research processes can be divided into three main parts- namely the initial preliminary stage, research on diseases themselves and research on human being as a whole person itself. The developmental history in psychiatry, also shows three stages. The initial stage is the stage of consilience or integration. In Hippocratic thinking, contrast two things are integrated into one concept. The second stage is the period of Diversity or period of Reductionism. During this period many kinds of reduced schools began to appear. The third stage is the stage of re-consilience. Engel proposed bio-psycho-social model based on the general system theory. I think, the spiritual well-being should be included in understanding the human being as a whole person. Recently, the term 'Consilience' has been very popular and has been used very frequently across the various academic fields. "Consilience' can be defined as 'to unify every field of knowledge and science to understand the human being and to improve the life of human being'. When I look back on my developmental processes as a researcher in the field of child psychiatry, the whole process seems to have tried to understand the human being as a whole person. This means to take care of the child or adolescence with disorder in terms of bio-psycho-socio-spiritual aspect not just to treat the child or adolescence as a kind of disorder. Thus, the concept of 'Consilience' can be applied to my own research experience.

Conclusions: Based on these findings, 'Bio-Psycho-Socio-Spiritual Model' is suggested to apply the concept of 'Consilience' to the developmental processes in my research for 30 years as a researcher in child psychiatry.

Keywords: Consilience; Bio-Psycho-Socio-Spiritual Model; 30 years Overview.

S3-04

The change imperative: why the youth mental health paradigm needs to evolve and why the voices of young people are critical to this evolution

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There are risks and costs to action. But they are far less than the long range risks of comfortable inaction' (John F. Kennedy). With involvement from young people, this engaging lecture will present compelling evidence of high levels of suffering among young people and will make a case that urgent change is needed to respond to the epidemic of mental ill-health among youth populations. It will track the origins of the youth mental health paradigm and demonstrate that the involvement of young people has been a powerful and essential part of its evolution. By combining epidemiological evidence and the voices of young people, this lecture will leave you in no doubt about our collective potential to create more responsive and relevant mental health services for young people, not only through an agenda of transformative change but also through individual efforts to incorporate the vision and ethos of a youth mental health paradigm into existing models of care.

Keywords: Change; youth mental health; participation.

S3-05

Suicide behaviour in young people

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Suicidal behaviour in adolescents can take many forms including suicidal thoughts, gestures, threats, attempts, and completions. Non suicidal self injury (NSSI) is also regarded as part of the spectrum. The relationship of these behaviours with other forms of self destructive behavior is debatable. The epidemiology of suicidal behaviors is quite dramatic with huge increases in incidence in the last century followed by significant decreases in recent years. Knowledge of risk factors has also increased and they include social, biological, psychological and psychiatric influences. Different personality constellations may account for different findings in this complex field. There have been advances in both psychological and biological therapies as well as in primary preventative measures. These issues will be discussed in a critical fashion with an emphasis on the authors work in this field.

Keywords: Suicidal behaviour; non suicidal self injury.

S3-06

Tourettes Syndrome: update on etiology and best clinical practice

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The Netherlands

Tourette's disorder is a childhood-onset developmental disorder characterized by the presence of both motor and vocal tics. In addition to tics, many children with Tourette's disorder are affected by comorbid conditions, such as attention-deficit/hyperactivity disorder and obsessive-compulsive disorder. These comorbid conditions may be more troublesome than the tics per se. In this state-of-the art lecture an overview will be presented to clinicians working in child and adolescent psychiatry of current knowledge with regard to assessment, phenomenology, etiology, and therapeutic options of tic disorders.

Keywords: Tourette's Syndrome.

S4-01-01

Validation process of the questionnaire AIDA (Assessment of Identity Development in Adolescence) in Bosnia-Herzegovina

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Background: As part of the joint international AIDA study we participated in the use of the self report questionnaire AIDA (Assessment of Identity Development in Adolescence) on adolescent population (age 12–18) in Bosnia and Herzegovina, in order to differentiate healthy identity development process from identity crisis and identity diffusion. Together with the Psychiatry Clinics- Departments for children and adolescent psychiatry, University Clinical Centres in Sarajevo and Tuzla and with the contribution and suggestions of original authors of this questionnaire, we developed a culture-specific translation of the AIDA questionnaire.

Method: Through the elaboration of the theoretical descriptions of all subconstructs of the AIDA-model and careful considerations about possible culture-dependency concerning phrases, we tried to present them in adequate formulations and idioms that are easy to understand and acceptable for adolescent population. In beta test addressing the comprehensibility and pilot test addressing basic psychometric properties the version was developed step by step.

Results: The beta test showed no systematic problems with comprehensibility of the items. Altogether, 19 out of the 58 items had to be changed or reformulated in order to capture the equivalent content with different wording in the Bosnia and Herzegovina culture. Those items were especially from the subconstructs “Consistent self pictures” and “Autonomy/Ego-strength”, both part of the primary scales “Incoherence”. An example for an item that had to be discussed because of keeping the sense of the described disturbance in the translation is: “My parents think that I am no good” which describes “identity-stabilizing roles and relations” as part of the promary scale *Discontinuity”. It was translated in as “My parents think that I can’t to do anything good”, because there is no similar idiom in Bosnia and Herzegovinalanguage.

Conclusion: It was possible to develop a content equivalent translation of AIDA with culture-adapted wording for Bosnia and Herzegovina with good psychometric properties. The identity subconstructs “Consistent self pictures” and “Autonomy/Ego-strength” and the subconstruct “Stabilizing roles” seemed to be more culture-sensitive for the Bosnia and Herzegovina adaptation.

Keywords: Identity, Adolescence, Personality Disorder, Assessment, Transcultural, Transition.

S4-01-02

Identity development and psychopathology from a cross-cultural view (I) + (II)

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Symposium Overview: In the revision of DSM, disorders of identity as an indicator of impaired self-related personality functioning are integrated as a central diagnostic criterion for personality disorders. We have developed the self-rating questionnaire AIDA (Assessment of Identity Development in Adolescents) for the use in adolescents aged 12–18 years to assess Identity, a highly complex construct that is difficult to define. Psychometric properties of the German version of AIDA are very good. As the interest in the assessment of identity is high we supported different international groups to develop culture specific adaptations of this questionnaire. Up to now there are versions in nine languages: English, German, Spanish, Portuguese, Greek, Serbo-Croatian, Albanian, Bulgarian, Arabian. A thorough examination of psychometric properties revealed that a specific cultural adaptation is even necessary for countries with the same language but different cultural background (like Spain, Chile and Mexico). In these two symposia we will present both methodological considerations and results of the assessment of a broad construct like identity in different languages and cultures as well as information about the development of identity in countries that are in the process of societal transitions.

Keywords: Identity, Adolescence, Assessment, Transcultural, Transition.

S4-01-03

The Swiss-German-American instrument AIDA (Assessment of Identity Development in Adolescence) and its transferability and quality in different languages and cultures

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Background: For *DSM-V* “identity” is discussed as a central diagnostic criterion for personality disorders (self-related personality functioning). As there has been no self-rating inventory to assess identity development both in healthy as in disturbed adolescents, we developed the *AIDA* questionnaire in an international expert panel to fully cover the dimension “Identity-Integration vs. Identity-Diffusion”. We distinguished the two higher-order areas “Continuity” (subjective emotional self-sameness; Ego-stability) and “Coherence” (clarity and consistency of self-definition; Ego-strength), referring to both social-cognitive and psychodynamic descriptions. Test construction was deductive, parallel in German and English language and oriented to future international use from the beginning. The final statistically selected test version contains 58 5-step self report items for 12–18 year olds. In a mixed school and clinical sample ($N = 357$) we found excellent psychometric properties with high total score ($\text{Diffusion} = 0.94$), scale ($\text{Discontinuity} = 0.86$; $\text{Incoherence} = 0.92$) and subscale (=0.73–0.86) reliabilities Cronbach’s α. Both primary scales differentiated significantly between PD-patients and controls with remarkable effect sizes (d) of 2.17 and 1.94 as a sign of excellent criterion validity. An EFA on item level showed a joint factor explaining already 24.3 % of the variance speaking for the assumed underlying variable “pathology-related identity development”. Several translations of AIDA (e.g. Chile, Mexico, Kosovo, Brazil) are already in the validation process. We will show a successful step-by-step improvement in cultural test-adaption process exemplary with the Lithuanian version and present an overview of all existing translations.

Methods: In a series of beta-test ($N = 40$) and pilot tests ($N = 50$, $N = 65$, $N = 148$) a culture-adequate formulation was developed for every original item by the Lithuanian team and the original authors.

Results: From partly weak item coefficients in the beginning we reached a highly reliable version in the end (Diffusion $\alpha = 0.91$; Disc. = 0.84; Incoh. = 0.86; subscales = 0.65–0.76), showing nearly identical factorial structure in EFA. Similar results were found in Mexico and Chile.
Conclusion: First results with translations showed the high generalizability of the structural identity model as it has been described for developing AIDA, but also the necessity for careful culture-adapted translation or even reformulation of the targeted constructs over using literal item translations in order to reach true content equivalence and sufficient reliability.
Keywords: Identity, Adolescence, Personality Disorder, Assessment, Transcultural, Transition.

S4-01-04
Identity development in Bulgaria: psychometric properties of AIDA in school and clinical sample

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Bulgarian team participates in AIDA project from March 2012. In our work on validation of AIDA in Bulgaria we passed through the stages of translation and cultural adaptation, recruitment of pilot clinical and school samples. At the moment our clinical sample consists of 46 adolescents (mean age—14.6 years). The group of our special interest and follow-up are 12 adolescents (N12) with high score of diffusion (more then 100), discontinuity score between 36–79, incoherence score between 61–102. The pilot group of school sample consists of 32 adolescents aged 14–15 years—students from one class in a public high school. We had 68.75 % (22) girls and 31.25 % (10) boys. The total classroom participation rates ranged 100 %. Data collection took place at the school in a group-setting during one school hour. Scale reliabilities were evaluated by Cronbach's α and results for Discontinuity ($\alpha = 0.77$) and Incoherence ($\alpha = 0.83$) were evaluated as good. Construct validity was examined with Pearson correlations between the AIDAscales and subscales. The subscales were highly correlated. To illustrate the diagnostic validity of AIDA we compared the standard deviation scores for both AIDA scales (Discontinuity and Incoherence) obtained for the school sample (N32) and the high score subsample (N12) from the clinical population. The effect sizes $d = 2.32$ (for Discontinuity) $d = 2.71$ (Incoherence) demonstrate very good discrimination capacity of AIDA. For further validation we are in the process of recruiting new adolescents for our clinical sample, and in cooperation with our community and public high school authorities 300 adolescents are invited to participate.
Keywords: Adolescence, Identity, Psychometric Properties, Assessment, Validity.

S4-01-05
Psychometric properties of the Albanian AIDA version in a Kosovar school sample

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Psychometric properties of the Albanian AIDA version in a Kosovar school sample.

Early detection and intervention have proven to be the most important topic in developmental psychopathology. As identity diffusion is discussed as central construct in developing personalilty disorders, a reliable and valid tests is needed to enable valid diagnostics as well as a high quality research. The questionnaire AIDA (Goth, Foelsch, Schlueter-Mueller and Schmeck, 2012) is a reliable and valid method to assess pathology-related identity development in self-rating in adolescents. In cooperation with the original authors, our Kosovar group has developed a culture-specific translation of the AIDA questionnaire in order to join the international AIDA study. After being translated and adapted to Albanian language, the Kosovar AIDA (Assessment of identity development in adolescence) was tested for psychometric properties in a clinical and in a community sample in Kosova. The pilot test with a sample of N = 25 adolescents provided sufficient scale reliabilities with $\alpha = 0.93$ for the total scale Diffusion, 0.81 for the scale Discontinuity and 0.89 for the scale Incoherence. Seven items had to be changed after the pilot test to improve psychometric properties, based on the statistical coefficients extracted in the item analysis. Some more items had been slightly changed in formulation to improve comprehensibility and/or probability of symptomatic answers. For the main test, the enhanced clinical sample consisted of outpatients who attended Child and Adolescent Mental health Centre of University Clinic Pristina (Kosovo). The non clinical sample was drawn from public schools of two cities: the capital city Prishtina and the city of Gjakova. In addition, we used SDQ (*Strengths and Difficulties Questionnaires)* as a screening tool for psychopathology. Results from both samples will be presented and discussed on from the perspective of societal and cultural characteristics.
Keywords: Identity, Adolescence, Assessment, Transcultural, Transition.

S4-01-06
Validation process of the Greek AIDA version: cultural differences in describing and displaying pathology-related identity development in a Greek sample

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Background: Equivalent test batteries are the basis for joint international studies where data can be pooled and even rare psychological phenomena can be analyzed with sufficient sample sizes. Together with the department of psychology of Panteion University in Athens and with the original co-authors, our Greek group is developing a culture-specific translation of the AIDA questionnaire in order to join the international AIDA study.
Method: Through elaboration of the theoretical descriptions of all subconstructs of the AIDA-model and careful considerations about possible culture-dependency concerning the phenotype (i.e. specific socially accepted or mentality-referred ways to display different levels of identity development) as well as about adequate formulations and idioms for adolescents that are easy to understand and free of systematic bias concerning gender and age led to a first version of the Greek AIDA. In beta tests addressing the comprehensibility and

pilot test addressing basic psychometric properties the version was developed step by step. All test samples are balanced concerning gender, age and mental health in order to cover all target probands.
Results: The beta-test showed no systematic problems with comprehensibility of the items. Altogether, 15 out of the 58 items had to be changed or reformulated in order to capture the equivalent content with different wording in the Greek culture. The items were especially from the subconstructs "Consistent self pictures" and "Autonomy/Ego-strength", both part of the primary scale "Incoherence". e.g. in item 4: "I feel that I have different faces that do not fit together well" the word "faces" was changed into "different sides". Duplicity in Greek language is always a negatively loaded meaning as deceitful and furthermore many faces would remind us more of the mythological creature Lernaean Hydra with many heads than of an identity concept.
Conclusion: It was possible to develop a content equivalent translation of AIDA with culture-adapted wording for Greece with good psychometric properties. The identity subconstructs assigned to the primary scale "Incoherence" seem to be more culture-sensitive for the Greek adaption than others like e.g. "Stability in attributes/goals" as part of the primary scale "Discontinuity".
Keywords: Identity, Adolescence, Personality Disorder, Assessment, Transcultural, Transition.

S4-02-01
Adolescent-onset psychosis and some environmental risk factors

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Background: Among the risk factors for psychosis in adolescence we usually consider: individual vulnerability which includes biological factors and predisposition and environmental factors or conditions in which the adolescent lives and psycho-dynamic that affect the young person.
Aim of the study: Was to determine whether there is a statistically significant relationship between the occurrence of the first psychosis in adolescence and specific conditions in which the adolescent lives, whether psychosis is more common in young people living in families or in boarding accommodation.
Method: We analyzed the clinical features and therapies in two groups of adolescents hospitalized in the Emergency psychiatric ward for adolescents: (1) a group that lives in the families ($N = 38$) and (2) a group that lives in homes and boarding schools for adolescents ($N = 35$). The analysis included data on 73 adolescents of both sexes, aged 14–18 years. The methods of descriptive statistics were applied and also the qualitative analysis of psycho-dynamic factors and specific conditions in which adolescents live.
Results: Statistically significant association was found between persecutory ideas and living in a family environment, Pearson Chi Square $= 5.811$ for $df = 1$, Contingency Coefficient (CC) $= 0.272$. Statistically significant association was found between social isolation and living in a family environment, Pearson Chi Square $= 9.878$ for $df = 1$, $CC = 0.349$. Statistically significant association was found between conduct disorder and living in boarding accommodation, Pearson Chi Square $= 4.880$ for $df = 1$, $CC = 0.250$. All patients were treated with combination of drugs and psycho-therapeutic methods (psycho-dynamic counseling, cognitive-behavioral therapy, family therapy, psycho-education, art therapy, group therapy). Data on psycho-dynamic factors that influence the development of psychosis were obtained during family therapy, and suggest a lack of clear messages and mothers who have sabotaged treatment of their children, they were polite and discreet, ready to enjoy long conversations, but they were not noted anything other than their own intrinsic unrest.
Conclusion: There is a statistically significant relationship between the occurrence of the first psychosis in adolescence and specific conditions in which the adolescent lives. Psychosis is more common in young people who are living in families. Drug therapy is commonly used in clinical treatment of psychosis. Individual and family psychotherapy should be mandatory represented in the treatment of psychotic adolescents.
Keywords: First psychosis, adolescence, psychodynamic factors, family, boarding accommodation.

S4-02-02
Coping as a moderating factor between psychotic symptoms and functioning in adolescents with mental illness

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Psychotic symptoms in the context of psychiatric disorders are associated with poor functional outcomes, but the exact mechanisms underlying this association are unknown. One factor of interest may be coping. Environmental stressors are an important factor in the development of psychosis; however, experienced distress may only be pathogenic when it exceeds an individual's ability to cope with it. Therefore, poor coping skills may offer a fruitful target for research and possibly intervention. In a clinical case-clinical control study of 115 newly-referred adolescent patients with non-psychotic psychiatric disorders, coping was investigated using the Adolescents Coping Scale (ACS). Functioning was assessed with the Children's Global Assessment Scale (CGAS), which is based on the Global Assessment Scale for Adults. Psychotic symptoms were assessed with the Schedule for Affective Disorders and Schizophrenia for School-aged Children, Present and Lifetime versions (K-SADS-PL). Parallel analysis showed that the ACS distinguishes two types of coping: approach-oriented (adaptive) and avoidance-oriented (non-adaptive) coping. Patients with non-psychotic psychiatric disorders and additional psychotic symptoms reported lower levels of functioning and more use of avoidance-oriented coping. Furthermore, coping was found to moderate the association between psychotic symptoms and functioning: poor coping (i.e. *less* use of approach-oriented coping styles [OR 0.20, $p < 0.002$] and *more* use of avoidance-oriented coping [OR 0.18, $p < 0.006$]) was associated with lower levels of functioning but only in those adolescent patients with psychotic symptoms. Poor coping may partly explain the association between psychotic symptoms and poor functional outcomes in mental health adolescent patients with non-psychotic psychiatric disorders. The results suggest that improvement of coping skills may form an important target for intervention that may eventually contribute to better clinical and functional outcomes.

Keywords: Coping, functioning, psychotic symptoms.

S4-02-03

Honorary presentation by award-winning young Dutch CAP researcher

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Introduction: This lecture is presented by the winner of the 2013 Dutch child and adolescent psychiatry (CAP) research-contest in June 2013. Final title and content will be communicated in June.

Method: On June 6 2013, during the conference celebrating the 65th anniversary of the Child and Adolescent Section of the Dutch Association of Psychiatry, the seven academic centres for CAP in the Netherlands will present their most innovative research plans. Each centre is represented by a senior and a junior researcher. They will present their research plans in three rounds, in interaction with the audience (members of the CAP section).

Results: The presentations will be judged on originality, feasibility and societal relevance, by the participants and by representatives of patient organizations. The junior researcher of the winning team is awarded with the honour of presenting this lecture.

Conclusion: Although presenter and topic of this lecture are yet unknown, the formula leading to this honorary lecture guarantees a very interesting lecture for a wide CAP audience.

Keywords: Winner of 2013 CAP research contest; Dutch association of psychiatry; Netherlands.

S4-03-01

A clinical update of the diagnosis and treatment of pediatric Catatonia

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Catatonia is a complex neuropsychiatric syndrome with characteristic behavioural and motor symptoms. The full blown syndrome is unmistakable and carries significant morbidity and mortality. Catatonia occurs in young people as well as adults but is less well researched. Early treatment is crucial to avoid the condition worsening and comorbid physical complications such as malnutrition or pneumonia. This symposia will present an over view of the clinical presentation of catatonia using case examples and video material, new diagnostic consideration in DSM V will be presented. Catatonia occurring in first episode psychosis and secondary to medical conditions will be presented. The symposia will provide an overview of physical and drug treatments for Catatonia drawing on extant literature and clinical experience.

Educational learning objectives:

- Receive an update on the clinical and research aspects of Pediatric Catatonia, including the new DSM V criteria.
- Become familiar through clinical case presentations and video material, with the clinical presentations of catatonia in a wide number of disorders.
- Understand the current thinking of effective treatment of pediatric catatonia.
- Receive an update on the use of ECT in children
- Identify clinicians expert in the area of pediatric catatonia for future consultation and advice

Presenters:

1. Dr. Dhirk Dhosce, US: An overview of Catatonia, with videoed clinical examples
2. Prof. David Cohen, Paris. Catatonia due to medical conditions
3. Dr. Michal Goetz, Czech Republic: Prevalence of Catatonia in children and adolescents with First-Episode Psychosis
4. Dr. Gordon Bates, UK. An update on the treatment of catatonia in children
5. Dr. Paramala Santosh, UK (Discussant)

Keywords: Catatonia, Psychosis, ECT, Benzodiazepines.

S4-03-02

Catatonia NEC, a new category in DSM-5: implications for pediatric catatonia

Dirk Dhossche

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The creation of a new DSM-5 category Catatonia NEC (Not Otherwise Classified) showing catatonia of uncertain origin or associated with developmental conditions such as autism has important implications for the assessment, diagnosis, and treatment of child and adolescent psychiatric patients. Catatonia is currently considered a unique syndrome characterized by specific motor signs, at times life-threatening when aggravated by autonomic dysfunction and fever, but treatable with benzodiazepines and electroconvulsive therapy (ECT) if recognized early. Identifiable motor signs are immobility sometimes alternating with purposeless excessive motor activity, extreme negativism, reduced speech or muteness, repetitive movements, echolalia, echopraxia, and other peculiarities of voluntary movement. Tics, often with self-injury, occur commonly in catatonic patients and may qualify as additional or alternate catatonic symptoms. During the last few years, pediatric catatonia has been further delineated across a wide range of disorders yielding widely varying prevalence rates, supporting that catatonia may not be so rare in younger patients. Symptoms and diagnostic criteria for pediatric catatonia are the same as in adults. Some children and adolescents develop catatonia after severe psychological trauma. Current experiences support the use of benzodiazepines and ECT in pediatric catatonia as safe and effective treatments without the risk of worsening catatonia or precipitating Neuroleptic Malignant Syndrome as opposed to when antipsychotic medications are used as first-line or sole treatment. Catatonia NEC is an imminently relevant diagnosis in children and adolescents who meet criteria for catatonia but without clearly defined associated psychotic, affective, or medical disorders. It should be considered when catatonic symptoms present in pediatric patients with autism spectrum disorders, developmental disorders, Tourette's Syndrome, Kleine-Levin Syndrome, aseptic encephalitis (autoimmune encephalitis and Anti-*N*-Methyl-D-Aspartate Receptor encephalitis), Pervasive Refusal Syndrome, or complex PTSD. The creation of Catatonia NEC in DSM-5 is likely to improve proper diagnosis and treatment of pediatric catatonia and to increase further research of this condition.

This presentation reviews this diagnosis, and presents oral and video clinical material.

Keywords: Adolescents, benzodiazepines, catatonia, children, treatment, electroconvulsive therapy, pediatric.

S4-03-03

Medical and developmental risk factors of catatonia in children and adolescents: a prospective case–control study

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Context: Rare diseases have been associated with more and more genetic and non genetic causes and risk factors. But this has not been systematically assessed in catatonia, one of the psychiatric syndromes, that is the most frequently associated with medical condition.

Objective: We sought to assess the medical and developmental risk factors of catatonia in children and adolescents.

Methods: From 1993 to 2009, 58 youths aged 10–18 years were prospectively admitted for catatonia and were followed up after discharge. A multidisciplinary approach assessed patients' medical condition and developmental history. A causality assessment scored medical risk (maximum score = 10; $\kappa = 0.91$). We compared the prevalence of catatonia in these patients to that of 80 inpatients with bipolar I disorder admitted from 1993 to 2003 who were also followed up.

Results: We found that 13 (22.4 %) patients had medical conditions and 18 (31 %) had a history of developmental disorder in the catatonia group, whereas 1 (1.3 %) and 17 (22.6 %) patients had the same conditions in the bipolar group ($p < 0.001$; $p = 0.17$, respectively). Medical conditions associated with catatonia included auto-immune encephalitis (systemic lupus erythematosus [N = 3] and anti-NMDA-receptor encephalitis [N = 1]), seizures (N = 1), ciclosporin encephalitis (N = 1), post hypoglycaemic coma encephalitis (N = 1), and genetic or metabolic conditions (Chorea [N = 2], 5HT cerebrospinal fluid deficit [N = 1], storage disease [N = 1], fatal familial insomnia [FFI; N = 1], and PRODH mutations [N = 1]). Six patients responded to a specific treatment approach related to their medical condition (e.g., plasma exchange in the case of auto-immune encephalitis).

Conclusion: Catatonia in children and adolescents is associated with a high prevalence of medical conditions. This needs to be acknowledged as it may greatly delay the treatment of catatonia and the diagnosis of medically related catatonia. Tragically, this may deny patients treatment opportunities.

Keywords: Catatonia, medical and developmental risk factor.

S4-03-04

Prevalence of catatonia in children and adolescents with first-episode-psychosis

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Objectives: To assess the prevalence, rate of recognition, and treatment of catatonia among children and adolescents with first-episode-psychosis.

Methods: Retrospective chart review, by an experienced child psychiatrist, of consecutive admissions with first-episode-acute-psychosis (F23) to the Department of Child and Adolescent Psychiatry of Charles University in Prague and University Hospital Motol between years 1997–2007. Bush-Francis Catatonia Rating Scale (BFCRS) and Katatonia Autism Neuropsychiatric and Neuromovement Examination Rating (KANNER) scale (Screening and Scale sections) have been used.

Results: Charts were reviewed of 69 children and adolescents (10–17 years of age, Ø = 15.85 years, 32 boys and 37 girls). Using stringent criteria of at least four symptoms we identified 25 (36 %) cases of catatonia (14 girls, 11 boys). Difference in age and gender between group with and without catatonia were non-significant. The total number of catatonia symptoms ranged from 5 to 17 (Ø9). Catatonia was significantly more frequent in patients with very rapid onset of psychosis and where the psychosis was preceeded with acute stressor. Agression, use of bed restraints and acute extrapyramidal crisis were significantly more prevalent in the group with catatonia. Mutism (86 %), staring (82 %), immobility/stupor (78 %) and excitement (69 %) were the most prevalent catatonic symptoms. Catatoniahas been largely unrecognized (2/3 of cases). Two patients with catatonia received ECT, and ¼ of subjects was treated with benzodiazepines, but the monotherapy was applied in one case only.

Conclusion: Our data supports the utility of the structured clinical tools for recognizing catatonia. The catatonic syndrome was present in more than one third of children and adolescents with first-episode-psychosis, but was not treated according to recent recommendations to use benzodiazepines or ECT.

Keywords: Catatonia, psychosis, treatment.

S4-04-01

Abnormal functional connectivity during visuospatial processing is associated with disrupted organisation of white matter in autism

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Background: The theory of abnormal cortical connectivity holds that core features of autism spectrum disorders (ASDs) are underpinned

by abnormal interregional brain connectivity. There is accumulating neuroimaging and genetic evidence supporting this theory. Previous work from our group has identified marked abnormalities of functional connectivity during visuospatial processing in ASD (McGrath et al., 2012 PMID: 22865697). There is however a striking lack of research investigating the relationship between abnormal functional connectivity and white matter structure. In addition, the impact of aberrant neural connectivity on behaviour in ASD is poorly understood.

Objectives: The aims of this study were 1. To determine whether functional connectivity abnormalities were associated with structural abnormalities of white matter in ASD and 2. To examine the relationships between aberrant neural connectivity and behaviour in ASD.

Methods: 22 non-medicated individuals with ASD and 22 age and IQ-matched controls completed a high-angular-resolution diffusion MRI scan. Seed regions for constrained spherical deconvolution (CSD) based diffusion tractography were generated from functional connectivity maps during a visuospatial processing task that the same study group had completed (McGrath et al., 2012 PMID: 22865697) and consisted of ten pairs of brain regions that showed abnormal functional connectivity in ASD. CSD-based tractography through these seed regions resulted in isolation of white matter tracts that directly connected brain regions showing abnormal functional connectivity. Fractional anisotropy (FA), a measure of micro-structural organisation of white matter, was extracted from isolated white matter tracts. Correlation analyses were used to investigate relationships between functional connectivity, structural connectivity and behaviour in ASD.

Results: The tractography analysis isolated white matter tracts directly connecting five of the ten pairs of brain regions; between a seed region in left BA19 and left caudate head, left caudate body, left uncus, left thalamus and left cuneus. FA in all tracts was reduced in the ASD group; this reduction was significant for white matter connecting left BA19 and left caudate head, and left BA19 and left thalamus. There were significant correlations between visuospatial processing speed, functional connectivity and structural connectivity measures.

Conclusions: This is the first study in ASD research to directly investigate how structural and functional connectivity are interrelated. Using an original approach integrating functional connectivity MRI and diffusion tractography, this work has revealed that abnormal functional connectivity in ASD is associated with disrupted organisation of white matter. This is particularly interesting as it provides novel evidence to suggest that structural brain pathology may contribute to the abnormal functional connectivity that has been widely reported in the autism literature.

Keywords: Autism spectrum disorders, diffusion tractography, visuospatial processing, functional connectivity.

S4-04-02

Diagnostic and correction of visual object recognition in preschool children with ASD

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Background: Autism spectrum disorder is strongly associated with perception abnormalities. Nevertheless the question of visual object recognition in ASD isn't currently clear. The aim of our study was to assess visual object recognition in low- and high-functioning preschool children with ASD. We developed a series of tasks, addressed to assessment of the ability to match objects under different condition.

Methods: In the current study 20 children with ASD (aged 3.4–7 years), (experimental group); 10 children with Down syndrome (DS) (aged 3.6–7 years), and 20 typically developing children (TD) (aged 1.4–4 years) (control groups) were assessed with visual cognitive test battery; psychoeducational profile; childhood autistic rating scale. The groups were matched on psychomotor level of development.

Results: 1. Participants with high-function ASD committed significantly more errors than TD matches in the task in which they had to match object images made from different points of view (group effect $p < 0.001$). Six types of errors were identified: contextual, unrecognition, word-based, shape-based, random, perseverative. Most of errors in ASD group were shape-based ones (matching objects on the base of the same geometrical form of their projections) (the intra-group effect $p < 0.001$), while the difference between number of errors of different types within TD group wasn't significant. It indicates that individuals with ASD in contrast to TD tended to rely on the geometrical form of objects projections, and ignore other perceptive and semantic features. At the same time they were significantly better in matching of abstract, high detailed pictures than TD children of the same level of psychomotor development. There was a positive correlation between the number of "shape-based" errors and the severity of autistic symptoms and no correlation with the range of psychomotor development within the group. 2. Low-functioning autistic children had partial impairments in perception of big size geometrical figures. The number of errors in the "geometrical figures recognition" task depended on the size of figures and was significantly higher in the "big size" trial (angular dimension of stimuli 100°), than in the "small size" trial (10°) ($p = 0.005$). There was no difference between tests results in TD and DS groups. 3. Using of yoked-prism lenses provoked significant improvement in form recognition, including perception of big size figures.

Conclusion: The deficiency of perceptual grouping can be a mechanism that underlies impairments of big size objects recognition in low-functioning group. Enhancement of local perceptual processes as well as executive function deficit can cause the perception errors in high-functioning ASD children.

Keywords: Autism spectrum disorder, visual object recognition.

S4-04-03

Studies of autism spectrum disorders in Irish populations

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The prevalence of ASD has been studied in Ireland since the early 1970s, the first study initiated by Paul McCarthy. A second prevalence study was conducted in the 1980s. Results are available for both. The prevalence of Autism was found to be 4.9 per 10,000 of the population. There was no significant differences between months and seasons of birth. There was no significant differences between birth order and Autism. 33 % of persons with Autism had two siblings and 22 % had one sibling. The extra expenditure incurred was a moderate burden for 41 % and a severe burden for 38 %. There was a severe negative impact on 29 % of siblings and no impact on 18 %. Different diagnostic classifications were used.

ICD 10 gave a diagnosis to 144 out of 309. As regards Kanner's V criteria 24 out of 309 met these criteria. For Kanner and Eisenberg's two criteria 220 met these. In a study of mothers of these children approximately a quarter of mothers had problems concentrating while 20 % said they were losing confidence in making decisions. 30 % of the mothers were taking things hard. The prevalence then as now was affected by the criteria used. This study was conducted in the eastern region of Ireland. These findings will be compared with contemporary rates for Autism of approximately 2 % in the latest study. Extra expenditure was involved in 38 % of persons with Autism. Extra care giving arrangements causing expenditure was so in 19 %. Loans were taken out in 14 %. Leisure activities had to be cancelled due to financial pressure in 16 %. There was disruption of the activities of other family members in 40 %. The behaviour of the person with Autism disrupted routines in 44 %. There was neglect of the rest of the family due to the person with Autism in 17 %. 30 % of the persons with Autism used up other family members holiday time. Family studies focused on the relationship between celiac disease and sulphotransferase with Autism. In terms of coping with a child with Autism religious practice by mothers showed an increased coping ability. The relationship between Autism and changelings was commonly described in Ireland and many other European countries. This will be discussed. The relationship between Asperger's Syndrome and very serious criminality is a topic of major current concern and will be discussed.

Keywords: Autism, Ireland, Prevalence.

S4-04-04

Overlap between schizophrenia and autism spectrum disorders

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In my clinical practice patients come to me with a diagnosis of Schizophrenia who turn out to have an Autism Spectrum Disorder. This has very significant implications for the patient. In my clinical practice it is not uncommon for me to see middle aged patients with a lifetime diagnosis of Schizophrenia and treatment with neuroleptics who should have been diagnosed with an Autism Spectrum Disorder. Unfortunately they may have many of the side effects of neuroleptics at this point. The goal of this presentation is to reduce the frequency of this misdiagnosis and to examine the overlap and differentiation of Autism and Schizophrenia. There has been a belief for very many years that Schizophrenia and Autism Spectrum Disorders are completely separate. Recent research has shown some overlap both clinically and aetiologically. Indeed the diagnosis of Schizophrenia and ASD are not uncommonly confused. Both can show delusions. There is a clear overlap between the negative symptoms of Schizophrenia and the symptoms of ASD. Both can show theory of mind problems and language problems. Prodromal Schizophrenia and ASD are confused. Both can be described as neurodevelopmental disorders. In terms of difference persons with Autism tend to have smaller brains and children with Autism larger brains. Persons with ASD are far more rigid in inpatient units. In the author's clinical experience first rank symptoms of Schizophrenia do differentiate Schizophrenia from Autism. Of course both can occur together and psychotic episodes are not rare in persons with ASD.

Keywords: Autism, Schizophrenia, Overlap.

S4-04-05

The perceptual disturbances and auditory event-related potentials in youths with autism spectrum disorders in Taiwan

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Backgrounds: Perceptual disturbances have been reported in around 70 % individuals with autism spectrum disorders (ASDs), involving different sensory modalities with both over- and under-reaction. Most studies depend on self-report, and are largely limited by the language ability of subjects. This study investigated the perceptual disturbance in adults with ASDs by both questionnaire and auditory event-related potentials (ERPs), a tool independent of subjects' language ability.
Methods: Thirty-two individuals with ASDs (including high function autism and Asperger's disorder) (aged 20.2 ± 5.8 years) and 20 typically developing (TD) controls (aged 18.0 ± 1.3 years) completed the questionnaire of Adolescent/Adult Sensory Profile and the two tasks of ERPs, P50 sensory gating and Mismatch Negativity (MMN). The subscores of the Sensory Profile were compared between ASD and TD. The differences on ERPs, the indexes of P50 sensory gating ratio and the amplitude and latency of duration/frequency MMN, were also compared between ASD and TD. Correlations between the Sensory Profile and ERP results were evaluated.
Results: The preliminary analysis showed that individuals with ASD had lower sensation seeking by self-report on the Sensory Profile compared to TD, while their mothers reported that they have significant differences on sensation seeking, low registration, and activity. There were low mother–child correlations on Sensory Profile. There was no significant group difference on P50 sensory gating, and on the indexes of duration and frequency MMN paradigms, referring to Fz, FCz, Cz, A1, Pz, and Oz electrodes. The correlations between the perceptual disturbances on Sensory Profile and ERP indexes were noted on some items.
Conclusion: Our preliminary findings suggest that the adolescents and youths with ASD may have perceptual disturbances shown on the Sensory Profile by self-report or maternal-report, but the disturbances reported by self may be lower than by mothers. However, there was no significant difference between ASD and TD in terms of sensory gating function on P50 sensory gating and deviant detection ability on MMN; implying that the lower sensation seeking, registration and activity level measured on the questionnaire may be related to higher levels of sensory regulations, instead of sensory gating and deviants detection.

Keywords: Autism, ERP, P50, MMN.

S4-05-01

Pediatric MDD: sequential treatment with fluoxetine and relapse prevention CBT

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Major depressive disorder (MDD) is a serious and chronic illness in children and adolescents, with 40–70 % experiencing a relapse of depression within a few years. Continued treatment with antidepressants for 6–9 months reduces relapse rates; however, even with continued treatment, approximately 40 % will relapse (Emslie et al., 2008). In several adult studies and a small pilot study of adolescents, adding CBT following initial antidepressant response reduced relapse rates (Fava et al., 1994; Kennard et al., 2008; Paykel et al., 1999; Teasdale et al., 2000). We present on an NIMH funded single-site trial, which is the first large study examining a sequential treatment strategy for children and adolescents with MDD. Children (ages 8–11 years) and adolescents (ages 12–17 years) with MDD were treated with fluoxetine 10–40 mg for 6 weeks, and responders ($\geq$50 % reduction on the Children's Depression Rating Scale-Revised [CDRS-R]) were then randomized to continued medication alone or continued medication plus Relapse Prevention CBT (RP-CBT) for an additional 6 months. Independent evaluators (IEs) rated depression severity (based on the CDRS-R) and suicidal behaviors (based on the Columbia Suicide Severity Rating Scale) every 6 weeks through week 30. Primary outcomes were time to remission (defined as a CDRS-R total score $\leq$ 28) and rate of relapse (defined as either a) a CDRS-R score ^{3}40 with a history of 2 weeks of symptom worsening, or b) clinical deterioration where the CDRS-R score was less than 40 but the IE noted significant deterioration that would suggest full relapse if the patient's treatment were not altered). Of 281 youth who were evaluated, 200 met criteria for major depressive disorder (MDD) and were initiated on fluoxetine. The sample was 54.5 % female, and 52 % were minorities. The mean age was 13.8 ± 2.6 years, with 79 % (n = 158) being adolescent and 21 % (n = 42) being children. Baseline CDRS-R score was 59.0 ± 8.7, which is consistent with other large trials of early onset depression. Following 6 weeks of acute treatment, 144 were considered responders to treatment by week 6, and were randomized to continue medication alone (n = 69) or continue medication and add Relapse Prevention CBT (n = 75) for 6 more months. Treatment outcomes, including remission and relapse data, for subjects who entered continuation treatment will be presented.

Keywords: Depression; children and adolescents; relapse prevention.

S4-05-02
Quality of life in Hungarian depressed and community samples of children

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Objectives: The study of quality of life (QoL) of depressed child populations is rare in literature. The purpose of the present project was two-fold: 1. The validation of a quality of life test in Hungary and 2. The assessment of the QoL of children with major depression. We hypothesized that depressed children have lower satisfaction in all areas of life than normal controls. We tested factors that might influence QoL (financial status, age, sex, health, illness characteristics).

Materials and Methods: Sample for validation included N = 2,620 school-aged children (mean age 10.45 years, SD: 2.2 years, 56 % girls). Depressed children (N = 229) had a mean age of 11.4 years (SD: 2.1 years), 49.3 % were female. A subsample of normal controls were used for comparison group. Quality of life was measured by Inventar der Erfassung bei Lebensqualität der Kindern und Jugendlichen (ILK) that assesses satisfaction in 7 domains of life (school, family, peer relations, alone activity, physical health, mental health, global QoL). Psychiatric diagnosis was ascertained by a semi-structured psychiatric interview (ISCA-D).

Results: Reliability of the ILK test was satisfactory (internal reliability ranged from 0.66 to 0.78, test–retest reliability from 0.67–0.77). Inter-rater reliability was better in adolescents and their parents. Dissatisfaction in the control group was higher for the youngsters in almost all areas compared to their parents whereas depressed children were more satisfied than their parents thought. QoL of depressed children were significantly lower than QoL of controls by both self- and proxy-reports (18.2 points vs. 24.5 points). QoL of normal controls was influenced by age, gender, health and depressive symptoms whereas QoL of depressed children was mostly effected by characteristics of their depression (severity, comorbidity and presence of suicidal thoughts).

Conclusion: This study underlines the importance of depression in influencing quality of life in children. Validation of the first QoL questionnaire in Hungarian permits future studies in this area.

Keywords: Quality of life, major depression, children, self-report, proxy-report.

S4-05-03
Increasing the likelihood of identification and treatment of depression during pregnancy as a strategy to prevent mental health problems during childhood and adolescence

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Introduction: Prevention of child and adolescent mental health problems is a challenge. Depression during pregnancy is frequent and important risk factor for puerperal depression and negative mental health outcomes in the offspring, including cognitive, behavior and developmental impairments. Treating depression during pregnancy can be seen as a primary prevention strategy for mental health problems during childhood. Non-identification of depression and lack of expertise of primary care professionals for managing mental health problems are major barriers for treating depression during pre-natal care.

Objective: To investigate the prevalence of depression in pregnant adolescents and adults during the first pre-natal (PN) care consultation in São Paulo, Brazil; to examine the proportion of those women that were not identified or treated for depression before the first PN consultation and to explore knowledge and practices related to depression during pregnancy among primary health care professionals.

Method: We conducted a pragmatic RCT to access the efficacy of a non-pharmacological program for depression during pregnancy (PROGRAVIDA). All pregnant women attending the first PN consultation in 12 Primary Care Units with Family Health Programs in São Paulo were screened for depression (PHQ-2). Women screened positive were assessed for depression (PHQ-9). Current treatment for depression was investigated. Those with depressive symptoms were invited to participate in the PROGRAVIDA. Nurse assistants (NA) were responsible by the psychosocial intervention. We collected data with NA regarding their knowledge about identifying and treating depression.

Results: Among the 2,889 pregnant women screened (PHQ-2) 275 (9.5 %) were adolescents. Prevalence of depressive symptoms

(PHQ-9 > 4) was 30 %; only 3 % of them were receiving any form of treatment for depression before their first PN consultation. Most NA had never received any training to identify and treat depression during pregnancy, and they did not think depression was common among pregnant women.

Discussion: Barriers for treating depression during pregnancy, such as lack of identification of cases and specialized mental health professional working in primary care, and lack of knowledge of primary care professionals for treating depression are frequent in primary care clinics in São Paulo. Developing a program such as the PRO-GRAVIDA that includes ingredients to overcome the main barriers for treating depression during pregnancy increases the identification and treatment of depression in primary care and therefore may prevent at least a proportion of the childhood and adolescent mental health problems associated with depression during pregnancy.

Keywords: Prevention, epidemiology, intervention, pregnancy.

S5-01-01
ESCAP Guidelines Workshop ADHD

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ADHD, a psychiatric disorder characterized by a pervasive pattern of severe inattention, hyperactivity, and/or impulsivity associated with substantial impairment in various functional domains is amongst the most common mental disorders. The clinical presentation is highly variable and may differ according to age, stage of development and the presence of comorbidity. Careful assessment is needed. Evidence based treatment to manage the core symptoms focusses on psychoeducational, behavioural and medication treatments. For many children comorbidity might require additional interventions, which may differ from country to country, depending on therapeutic options. This symposium will centre on two case presentations. Each presenter, an expert in ADHD diagnosis and treatment, will discuss the current approach to evaluation and treatment in his country, reflecting guidelines, standards and/or state of the art practices. Possible moderators and mediators of treatment are also discussed. Four countries are represented: England, Scotland, Italy and Spain. For England and Wales NICE has established a national clinical practice guideline which recommends that pharmacological treatment should only be given as part of a comprehensive treatment plan including psychological, behavioural and educational interventions. The Scottish Intercollegiate Guideline Network (SIGN) have updated their ADHD Guideline recommendations in 2009 based on best available evidence and clinical experience. The SIGN guidelines have now been audited against actual clinical practice on two occasions (2008, 2012) by the NHS in Scotland. Although the Italian guidelines of diagnosis and treatment of ADHD recommend the use of use medication for cases with severe ADHD, psychotherapy and psychosocial intervention is still the main and often only type of treatment in Italy. In Spain, ADHD Guidelines were developed in 2010 by a group of experts. The guidelines were evaluated by a group of independent external reviewers according to the AGREE criteria and considered to have a better score than the AACAP guidelines, and similar to NICE and SIGN. Despite a variety of different clinical traditions and the widespread public controversy about the disorder and possible over-prescription of medication, common European guidelines have been established, alongside with various national guidelines. Similarities and differences in these guidelines will be highlighted and possibilities for continuous development of guidelines in international cooperation will be discussed.

Keywords: ADHD, guidelines.

S5-02
Adolescents with BPD throughout Europe; a discussion about quality of care

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Throughout Europe it is probably very different in what kind of medical attention you get, when you suffer from a Borderline Personality Disorder (BPD). Especially when you're an adolescent, you can ask yourself if you get such a personality disorder diagnosis at all? If you get a diagnosis like this what are your treatment options as a patient from that moment on?? What about prognosis and the position of parents/family? Are there any guidelines to help us with these patients? And are they useful for your ethnic group or cultural area? From international studies we know that prevalence varies a lot. It is difficult to make a clear statement regarding the prevalence of BPD in adolescents due to the diversity in terms of age and measuring tools (questionnaires or interviews). The percentages vary significantly: from 0.9 % in a population study (Lewinsohn et al., 1997) to 3–10.8 % in a longitudinal study (Cohen et al., 2005), 10–14 % in a study of secondary school pupils (Chabrol et al., 2001 and 2004) and 6–17 % in the general population (Johnson et al., 2006). Still these figures and our clinical practice show us that we need to have an answer for this group of patients. The organizers of this Pan-European workshop on BPD with adolescents in Europe wonder what you would do in your country? Are you giving youngsters a diagnosis like BPD and what's your institute got to offer next? In the scientific field researchers are very clear that early intervention early diagnosis and treatment are preferable (ESSPD congres dr. A. Chanen, 2012) But what is our clinical reality? Do we practice what we preach? The organizers in this workshop will try to be honest about what they did and did not if it comes to diagnosing and treating adolescents in their clinical practice. Now you please join us in a lively discussion!

Keywords: Adolescent, BPD, treatment, diagnosis, quality of care, guidelines.

S5-03-01
Emotions, Affective Status & Social Responsiveness In Different Psychiatric Conditions

ID 425 "Emotion recognition and social functioning in children with ADHD and ASD" (Zuddas team, Cagliari)

ID 172 “Alexithymia and attachment in alimentary disorders” (Balottin team, Pavia)
ID 381 “Affective states and pathology in adolescents with borderline personality” (Neri team, Milan)
ID 94 “Emotional control in externalizing and internalizing disorders” (Cianchetti team, Cagliari) are part of the symposium we have proposed and has been accepted. The symposium aims at dealing with different aspects of emotions, affective status and responsivity to social stimuli in some unrelated psychiatric conditions. It includes 4 reports. The first report is by Alessandro Zuddas et al. (Cagliari) “Emotion recognition and social funcioning in ADHD and ASD”. Using a questionnarie (Social Responsiveness Scale, Constantino & Gruber 200) and neuropsychological battery (Amsterdam Neuropsychological Test Battery (De Sonneville 1999, 2005), the authors compare social responsiveness and recognition/matching of facial emotion in children with ASD, ADHD or normal development (ND). Results indicate ADHD children show significant, specific impairment in both social responsiveness and specific emotion recognition compared to ND, although with a milder impairment compared to ASD. The second report is by Umberto Balottin et al. (Pavia) “Alexithymia and attachment in alimentary disorders”. Adolescents affected with anorexia nervosa were evaluated in their ability to identify and describe emotions and in their attachments style; a correlation is found with the affective status evaluated by means of depression and anxiety instruments.Follows a talk by Francesca Neri et al. (Milan) “Affective status and borderline personality disorder (BPD) in adolescence.” BPD inpatients werecompared with age and gender matched healthy control subjects. Children’s Depression Inventory (CDI) and State-Trait Anxiety Inventory form Y (STAI-Y)showed increased scores in BPD patients with respect to controls. The results are also discussed in the attempt of dissecting this complex disorder into more meaningful subgroups and of modeling specific traits that could be purposely targeted by dedicated therapeutic strategies.The last talk is by Carlo Cianchetti et al. (Cagliari) “Emotional control in externalizing and internalizing disorders.” Children were asked to indicate their answer mode faced with a number of different situations, for the most frustrating ones (test ICE). Those with externalizing and those with internalizing disorders showed a lower percentage of adaptive responses compared to the controls. Their prevalent responses were concordant with their emotional status. However, a percentage of subjects having externalizing disorders show a high number of internalizing answers.

Keywords: BPD inpatients, ADHD & ASD.

S5-03-02

Emotion recognition and social functioning in children with ADHD or autism spectrum disorders

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Background: Social cognition is a crucial aspect of healthy adjustment. ADHD show poor social skills and impaired interpersonal relationships, which in turn may be a consequence of impaired nonverbal communication. These features could overlap with autism spectrum disorders (ASD) symptoms, such as lack of reciprocity and difficulties in identification of facial expressions.

Objectives: (1) To compare the three samples while processing facial emotions and matching emotions using the Amsterdam Neuropsychological Test battery (ANT). (2) To explore, by the Social Responsiveness Scale (SRS), the social functioning of ADHD children compared to ASD and healthy controls (TDC) and investigate the effects of methylphenidate (MPH) on social impairment in the ADHD group.

Methods: Facial recognition (FR), identification facial emotion (IFE) and matching facial emotion (MFE) were assessed in 35 ADHD, 32 ASD and 36 TDC aged 6–14 using reaction time (RT) correct (RTC), RT to errors (RTE) and Errors. SRS data were collected from 234 children aged 4–13 and IQ > 70 (110 ADHD, 30 ASD and 103 TCD). SRS were re-administered to a group of ADHD ($n = 38$) that underwent on MPH at least for 9–12 months.

Results: ADHD children were significantly slower and less accurate than TDCs in both the FR and IFE tasks. A significant main effect for group and task (respectively $p = 0.005$ and $p < 0.0001$) and a significant interaction between task and group ($p = 0.039$) were found for the FR versus IFE task for both RT and number of errors. Both ASD and ADHD groups compared with the TDC group were slower; the difference in RT between IFE and FR tasks was slower in ADHD compared with TDC group ($p = 0.015$). SRS Total and each subscale score in ADHD and ASD were significantly higher than TDC ($p < 0.001$)with a significant relationship between *Hyperactivity* and *Autistic Mannerism* ($P < 0.001$) and between *Social Motivation* and Age in the ADHD group ($P = 0.05$). MPH treatment showed a significant improvement on SRS scores in the ADHD 1 year after.

Discussion: This study highlights a significant social impairment in ADHD. The results suggest that specific information processing deficits are present in both ADHD and ASD participants (slower reaction time and larger error rates) especially during face recognition and identification of facial emotions stimuli. ADHD also showed a SRS profile similar to ASD. Significant benefits from MPH on social impairment confirm its utility in treating ADHD as a complex disorder. Recognition of specific social deficit in ADHD may help to consider specific targets for a comprehensive intervention.

Keywords: *Facial emotion*, *social responsiveness*, *ADHD*, *autism spectrum disorder*

S5-03-03

Evaluation of attachment style and psychopathology in adolescent subjects with anorexia nervosa: pilot study

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Objective: The aim of this pilot study is to examine the association between attachment patterns, psychopathology and anorexia nervosa (AN) in adolescence.

Method: The study was based on the assessments from 35 females, divided into 20 young women with AN, visited in Neuropsychiatric Department of Pavia’s University,and 15 age-matched controls. All participants were assessed with Relationship Questionnaire (RQ) and Relationship Scales Questionnaire (RSQ) to estimate the attachment style, correlated with Beck Depression Inventory (BDI) to explore depressive symptoms, Self-questionnaires psychiatric scales for children and adolescents (SAFA-A) to appreciate anxiety, and Toronto Alexithymia Scale (TAS-20) to check alexithymia.

Results: From a descriptive point of view, in our study there was a prevalent insecure attachment style (preoccupied, dismissive, fearful) in the clinical sample. In coherence with the Literature, a great difference

was found in anxiety (specifically, social anxiety resulted higher), depression and alexithymia between the two groups. Patients with major intensity of these symptoms were those with insecure attachment style.
Conclusion: fearful attachment style, displayed by anorexic young women, could show how they adopt an avoidance strategy to evade their state of dependence on a caregiver they feel as avoidant, rejecting and unable to be a secure base. This attachment style, revealed by the standard methods of assessment, may actually be the result of several factors and it could be better analyzed by taking into account the possible interference of other clinical and psychopathological symptoms of the patients. Our results represent a preliminary assessment that must be screened in light of new recruitment and more detailed statistical evaluation.
Keywords: *Anorexia-adolescence*, *alexithymia*, *depression*, *anxiety*

S5-03-04

Affective states and pathology in adolescents with borderline personality

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Background: Borderline personality disorder (BPD) is a complex and clinically heterogeneous disorder presenting with an elevated degree of comorbidity. BPD patients experience affective instability with rapid shifts of mood or anxiety.
Aims: To attempt a retrospective reconstruction of the elements of risk in pre-morbid period. To dissect this disorder into more meaningful subgroups.
Materials and methods: A 15 year retrospective reconstruction of the risk factors in premorbid period was performed in 293 borderline adolescent inpatients recruited at the Child and Adolescent Neuropsychiatry Clinic of the San Gerardo Hospital of Monza (Italy), according to DSM-IV-TR. The data were collected by the medical records and by the Oxford Risk Factors Interview (ORFI) .A smaller sample of BPD adolescent inpatients was compared with age and gender matched healthy controls using Children's Depression Inventory (CDI), State-Trait Anxiety Inventory form Y (STAI-Y). Some neurobiological markers i.e. the density of peripheral benzodiazepine receptors (PBR) and serotonin transporters in peripheral blood mononuclear cells (PBMC) and platelets, the plasma levels of diazepam binding inhibitor (DBI), plasma dehydroepiandrosterone sulphate (DHEA-S) and cortisol were assessed.
Results: Retrospectively, we observed that adolescents with a BPD presented psychic and somatized anxieties, phobias and obsessions during the first and second infancy. The family context was characterized by an elevated prevalence of carelessness (72.4 %) and parental lack of emotional and relational involvement (46.1 %). BPD patients showed higher scores in CDI and STAI-Y with respect to healthy controls. PBR and serotonin transporters were lower in BPD patients; a further significant lower level of PBR in PBMC was shown for those patients with a depressive trait. DBI plasma levels were not different in BPD with respect to control subjects. DHEA-S plasma levels were significantly increased (of about 70 %), while cortisol levels were unchanged.
Discussion: The precocious identification during childhood of the risk factors for the development of BPD in adolescence may be helpful to outline preventive interventions. The dissimilar clinical presentations in BPD might be underlain by the presence of different molecular endophenotypes. A dysregulation of neurosteroid homeostasis might play a role in determining some associated clinical traits. The recognition of specific traits could help to find more tailored therapeutic strategies.
Keywords: Borderline personality disorder, risk factors, depressive traits.

S5-03-05

Emotional control in externalizing and internalizing disorders

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The way to react to an adverse event is consistent with the affective status and the cognitive structure of the subject. Large part of the psychiatric assessment of a patient is based on the evaluation of its behaviour in the face of life events, of which the most relevant are those causing frustration. However, in the great majority of cases only anamnestic data are obtainable for this. An alternative possibility is to present to the subject situations, hypothetical even if possible in daily life, asking him how he feels it would behave in those situations. A new test has been organized for this purpose, the ICE (Intelligence and Control of the Emotions), used in this study to evaluate the way to react in patients with externalizing and internalizing disorders.
Material and methods: The study involves children and adolescents with externalizing and other with internalizing disorders. They were subjected to the test ICE asking them to indicate their answer mode faced with a number of different situations, for the most adverse or frustrating. Each of 40 items gives the possibility of 4 type of responses, of which one express the best adaptive and equilibrate behaviour, the other may be of externalizing type (etero-aggressive or persecutory) or of internalizing type (mainly anxious and depressive). The subjects were also evaluated according a test of the emotional intelligence (BarOn EQi:Yv) and a battery of scales including the evaluation of anxiety and depression (SAFA). For comparison a group of age- and sex-matched school children has been investigated with the same instruments.
Results: Children and adolescents with pathological externalizing and internalizing conditions answered to the ICE with significantly lower percentage of adaptive responses compared to the undifferentiated school population. Their prevalent rate of responses was concordant with their emotional status. In general, individuals with externalizing disorders, particularly those with conduct disorders, revealed a specific aggressive way of thinking. However, some subjects with externalizing disorders did not show a significant increase of aggressive responses, while showing an increase of anxious-depressive answer, and this agrees with higher scores of anxiety and/or-depression at the SAFA.
Discussion: The evaluation of the way to react to frustrating situations helps to a better characterization of emotional control in subjects with externalizing and internalizing conditions. In particular it helps to detect abnormal modalities of thinking of certain subjects, especially those with ODD and CD.
Keywords: Emotionl control, externalizing disorders, internalizing disorders, affective status.

S5-04-01

Anti NMDA receptor encephalitis-an emerging diagnosis of relevance in child and adolescent psychiatry

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Speakers:
1. Dr. Susan Byrne, SpR in Neurology, Crumlin and Temple St Paediatric hospitals, Dublin, *A Neurological Perspective of autoimmune encephalitis*. Dr. Byrne will present an overview of autoimmune encephalitis from a neurological perspective, and report on findings from paediatric cases presenting to centres in Dublin.
2. Dr. Vic Chapman, Consultant Child and Adolescent Psychiatrist, Royal Free hospital, London. *Anti-NMDA receptor encephalitis, are we missing these cases in Child Psychiatry services?* Using a case based model, Dr. Chapman will review the presentation of a case to a community service, and look at potential stages where a diagnosis might be made. She will talk about difficulties managing a case in an acute service and the importance of understanding this disorder in Liaison child and adolescent Psychiatry services.
3. Dr. Helen Barry, Consultant Psychiatrist, Dublin, Ireland: *First episode psychosis and antibody mediated encephalitis.* The association of anti NMDA encephalitis with psychosis is new, having been identified only as recently 2008, although the disorder has likely gone unrecognized and indeed untreated previously. Psychiatrists should consider anti-NMDA receptor encephalitis in patients presenting with psychosis and additional features of dyskinesias, seizures and catatonia, particularly where there is no previous history of psychiatric disorder. Dr. Barry will review the evidence in the area, in particular with respect to presentations in psychiatric services.
4. Dr. Eleni Miltsiou, Trainee in Child and Adolescent Psychiatry, Royal Free Hospital, London: Hospital, London. *Paediatric Catatonia in the context of anti- NMDA receptor encephalitis.* Catatonia in paediatric settings is uncommon, but case reports suggest this is a frequent presentation of anti NMDA receptor encephalitis. Utilising a recent case example, Dr. Miltsiou reviews current evidence regarding paediatric catatonia in this context.

Keywords: AntiNMDAreceptor encephalitis, antibody mediated encephalitis, first episode psychosis, neurology.

S5-04-02

First episode psychosis and antibody mediated encephalitis

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Background: Anti NMDA receptor encephalitis was first identified Dalmau et al. Twelve women (14–44 years) developed prominent psychiatric symptoms, amnesia, seizures, frequent dyskinesias, autonomic dysfunction, and decreased level of consciousness often requiring ventilatory support. All had serum/CSF fluid antibodies to NR2B and NR2A subunits of the NMDA Receptor. In a subsequent 100 patient series Dalmau described the features of the disorder: All patients presented with psychiatric symptoms or memory problems; 76 had seizures, 88 developed unresponsiveness (decreased consciousness), 86 had dyskinesias, 69 hadautonomic instability, and 66 developed hypoventilation. 58 had tumours (primarily ovarian teratoma). 75 patients recovered or had mild deficits and 25 had severe deficits or died. We described and published 5 cases of the disorder who presented to Beaumont hospital, all of whom were considered in the first instance to have a primary psychiatric disorder. The diagnosis should be considered in the following presentations:atypical, new onset psychosis, seizure-like activity. i.e. orofacial mvmts, leg arm movements and catatonic symptoms i.e. posturing, echolalia, echopraxia, mutism. Particular consideration should be give when female, fluctuating presentation, dis-inhibited, hypersexual, sleep reversal, sudden onset, fragmented delusions and delirious type presentation.

Conclusion: Anti-NMDA receptor encephalitis is a new and treatable cause of psychosis Future work should clarify whether anti-NMDA encephalitis is associated with milder clinical presentations (more readily misidentified as schizophrenia)It presents with a significant overlap in symptomatology as puerperal psychosis. Beware of primary psychiatric illness as a ‘diagnosis of exclusion’ in liaison psychiatry. The disorder supports NMDA receptor hypo function hypothesis for schizophrenia.

Keywords: Anti NMDA receptor encephalitis.

S5-04-03

Anti-NMDA receptor encephalitis, are we missing these cases in Child Psychiatry services?

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Anti-NMDA receptor encephalitis, are we missing these cases in Child Psychiatry services?

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Background: Anti NMDA-receptor encephalitis is a diagnosis rarely made in CAMHS settings. There is an increasing awareness of this disorder in the adult literature. Overall there is an emerging evidence base of this disorder in young people who present to services with acute mental health disorders. This is a treatable disorder and early diagnosis is important. How do we increase awareness of this diagnosis in presentations to Child and Adolescent Services (CAMHS)? What can a recent presentation to the Royal Free Hospital teach other clinicians to help improve management of this diagnosis?

Method and Results: Literature review of clinical presentations and management in this area. A Case-Based model will be used to review presentation to a community service of this form of encephalitis. Potential stages where a diagnosis can be made will be considered. The need for clear care pathways to support treatment will be illustrated. Challenges in managing this presentation in an acute service will be discussed. The importance of child and adolescent liaison services in managing these complex presentations will be highlighted.

Conclusion: Greater understanding of this treatable organic disorder is crucial for early detection and treatment in CAMHS settings. Collaboration with colleagues in medical and paediatric services is essential. Paediatric Liaison services have a crucial role to play in the management of young people with this disorder.

Keywords: Anti-NMDA receptor encephalitis. CAMHS, Neuropsychiatry. Liaison Psychiatry.

S5-04-04

Paediatric Catatonia in the context of anti-NMDA receptor encephalitis

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Background: Presentation of catatonia in children and adolescents is rarely described in literature research. Catatonia is a potentially life threatening condition and the understanding of its pathogenesis is important. Recently there has been increased interest in catatonia related to anti-NMDA receptor encephalitis. In child population there have been some cases which presented with catatonia. Our Child and Adolescent team received a referral of a liaison case, which was initially referred for input on the management of the catatonia, likely related to predisposing low mood. The patient had soft neurological signs and after thorough investigation by the Neurology team, he was identified as a case of anti- NMDA receptor encephalitis. This case was of great interest to our team as it highlighted the possibility of a young person's presentation with psychiatric symptoms secondary to organic cause.

Method and results: Literature review was performed with aim to highlight key features of the presentation of catatonia in adolescents and children. PubMed and NHS evidence (PsychInfo, Medline) were the databases used. We searched the literature using the key words catatonia, adolescents. Articles in English language were identified and reviewed. The main focus of this review was to explore the importance of accurate and swift diagnosis and to identify the existing knowledge of the appropriate management.

Conclusion: Catatonia is rarely described in adolescents and children. Understanding of catatonia in this patient population is important as it will promote more accurate diagnosis and management. There is need for more data about this condition, especially in the paediatric population.

Keywords: Catatonia, adolescent.

S5-04-05

A neurological perspective of auto-immune encephalitis

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Five years ago the first case series of *N*-methyl-D-aspartate (NMDA) mediated auto-immune encephalitis was published (1). It is now a common differential diagnosis in the field of adult and paediatric neurology (2). Antibodies to NMDA and other known receptors are described in fifty per cent of auto-immune encephalitis, and it is likely that the remainder of cases are caused by auto-antibodies that have not yet been identified. Auto-immune encephalitis typically presents abruptly with seizures and confusion, however psychiatric features may precede neurological symptoms. Early recognition and treatment with immuno-suppressive therapy is imperative. The aim of this study is to review all cases of auto-immune encephalitis presenting to paediatric hospitals in Dublin from 2007–2012. Ten cases of auto-immune encephalitis (6 girls, 4 boys) presented to services in the 5-year period. NMDA receptor antibodies were identified in four cases, voltage-gated-potassium-channel (VGKC) antibodies were identified in one case, and no known antibodies were identified in the remaining five cases. The average age at presentation was 5.5 years (SD 3.1). The prodromal period was brief with a median duration of 4 days (range 3–42). Seven patients presented with seizures, and three presented with marked behavioral change. One of these patients initially presented to psychiatric services, but subsequently developed seizures and a neurological opinion was sought. Over the course of the illness; 80 % (8) required admission to the intensive care unit, 80 % (8) developed seizures, 90 % (9) were confused, 100 % (10) displayed behavioral change, 50 % (5) had hallucinations, and 60 % (6) displayed orofacial dyskinesia. There were no significant differences between the group where an auto-antibody was identified and those where none had been found. All cases were treated with immunosuppression and all improved. At follow-up two patients still had seizures, one patient had weight gain of 40 kg (from 60 to 100 kg), and three patients had psychological sequelae (poor concentration, obsessional traits/rigid thinking, behavioural change/ aggression). Our findings are identical to other paediatric series (2). Auto-immune encephalitis should be considered in any child without a premorbid psychiatric history presenting with an acute change behavioural change and rapid neurological deterioration.

Keywords: Auto-immune encephalitis.

S5-05-01

Epidemiology and assessment of infant social withdrawal reaction

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Infant social behaviour develops in the context of early parent-infant interaction. Several factors can have a harmful effect on early infant emotional and social development, including inappropriate living conditions and malnutrition, prematurity and illness in infancy, and disruptions in the early parent-infant interaction (Feldman 2007). Persisting withdrawal from social interaction is a sign of infant distress and has been found to be linked with the existence of various risk factors like malnutrition and unsatisfying parent-infant interaction (Guedeney, 1995; Matthey et al., 2005; Puura et al. in press). Impaired social behaviour of an infant may not only be an indicator of pathology in the infant, but the first sign of the effect of a psychosocial risk, like poor parental mental health (Mäntymaa et al., 2008). In this symposium we present the current knowledge of infant social withdrawal reaction and its assessment with a specific observation measure, the Alarm Distress Baby Scale (ADBB; Guedeny and

Fermanian 2001) and its modified version, the M-ADBB. The first presentation will review the epidemiology of persistent infant social withdrawal. Findings from studies done in France, Finland and Norway will be presented together with associated major risk factors. The first presentation will also describe a new study for assessing cognitive and social development of young infants in a low-income setting in Malawi. The second presentation will review studies done with a modified version of the original ADBB, the M-ADBB, and will present the few studies having used it so far. The audience could use both scales while rating some famous historical clips by René Spitz. The last presentation of the symposium will describe sustained infant social withdrawal among international post-institutionalized newly adopted infants in Israel, and its change over the course of a home-based attachment-focused intervention that was done during the first post-adoption year with the infant and its adoptive parents. We will present the result of this randomized controlled study.

Keywords: Infant social withdrawal, ADBB, epidemiology, assessment.

S5-05-02

Detection in infant mental health on the primary care using the ADBB and/or the m-ADBB scales

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Detecting infants in need is not equal to making a prediction on their fate. On the contrary, it may help realizing the relational needs of an infant. The first year of life has a strong agenda for infants and parents: getting synchronized one with each other. Many circumstances may hamper this process, be it on the child's side (Prematurity, sensory regulation difficulties or sensory impairment, cognitive delay or communication difficulties) or on the caregiver's side (Parental mental health difficulties, Post natal depression being the more frequent), with impact on the quality and synchronisation of the parent–infant early relationships. It is then quite important to have an assessment of the child's relationship abilities. The 8 items Alarm Baby Distress scale (ADBB) has been designed to assess social withdrawal behaviour in infants aged 2–24 months of age. The presentation will give an overview of its use in several setting and of its validation in several countries, as well as the modified 5 item version of the scale.

S5-05-03

Correlates of change in post-institutionalized infants' sustained social withdrawal behavior following adoption

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Infants adopted from institutions experience inadequate care prior to adoption and are therefore expected to show elevated sustained social withdrawal behavior shortly after being adopted. Social withdrawal is expected to decrease as they adapt to their new families. Sustained social withdrawal was assessed 1 month post adoption (Time 1) and again 6 months later (Time 2) via the Baby Alarm Distress procedure (ADBB, Guedeney and Fermanian, 2001). At time 1, 22.5 % of the infants scored within the clinical range for social withdrawal whereas a significant decrease in social withdrawal was indicated at Time 2, with none of the infants scoring above the cutoff score. As predicted, maternal depressive symptoms and insecure attachment were associated with smaller decrease in infants' social withdrawal. High maternal expectations for efficacy were associated with a smaller decrease in social withdrawal. Infants' temperament, gender, age at adoption, developmental level and maternal marital status were unrelated to the level of change in social withdrawal. Participating in a preventive intervention was not associated with greater change in social withdrawal. These results highlight the beneficial effect of adoption and the role of maternal depression and attachment security in decreasing sustained social withdrawal among internationally adopted infants.

S5-06

Technological innovations in child and adolescent psychiatry: an empirical perspective

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Background: Due to rapid technological innovations and societal demands for more efficient healthcare, the use of modern communication technology in child and adolescent psychiatry is increasingly considered. However, the majority of the evidence supporting the efficacy of technological innovations has been collected in adult populations. Do the results of these studies generalize to younger patients? Do children and adolescents benefit from similar applications, or do they need different types of e-treatment? At present, the evidence is sparse, although the number of studies is increasing. Pioneering researchers have begun to assess the efficacy of *eCAP* applications (electronic Child and Adolescent Psychiatry). How do their findings inform current practices?

Objective: The objectives of this workshop are threefold: (1) to provide an overview of current technological innovations in child and adolescent psychiatry, (2) to raise awareness about the hurdles and pitfals of this developing field, and (3) to discuss the strengths and weaknessess of the present evidence base.

Format: After a brief state-of-the-art introduction of the developing field, three researchers from three countries present their original eCAP research. Mathijs Lucassen (PhD) from New Zealand will present the results of a large randomised controlled trial of SPARX (n = 187) conducted in primary healthcare settings in New Zealand and discuss the challenges associated with delivering a cCBT program in a fantasy game-like format. SPARX is a form of computerised cognitive behavioural therapy (cCBT) and it was specifically developed for adolescents (12–19 years old) with mild to moderate depressive symptoms. In the presentation of prof. Pier Prins (PhD) from the Netherlands he will describe the rationale and development of an Executive Function Training Program with game-elements ('Braingame Brian') for children with ADHD. Further, results from two controlled clinical trials will be presented and discussed. Sarah Vigerland of Sweden presents two studies (a pilot study and a RCT) on internet-delivered cognitive behavioral therapy for children, age 8–12, with anxiety disorders. Next, the audience will be asked to join a round-table discussion.

Results: Although electronic aids are being used in the field to support the treatment of children and adolescents, current evidence does not justify wide-spread dissemination of these practices. On the other hand, preliminary studies yield promising results. eCAP may enrich child and adolescent psychiatry with unique treatment alternatives. The efficacy of specific applications, however, should not be assumed but verified.

Keywords: e-health, innovation, evidence-based, overview, international perspective, empirical perspective, technological innovation.

S5-07-01
Mental health in vulnerable groups

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It is well recognised that childhood mental health problems represents a serious impediment to the emotional, physical and financial wellbeing of the child and their family. They are a leading cause of life-long disability with significant morbidity and mortality and there is a real risk of persistence into adulthood for many disorders. Accepted prevalence rates are that 20 % of children will suffer from psychological problems, 10 % suffering from mental health problems with some impairment. Early recognition and ready access to acceptable services is crucial in order to minimise the negative impact of MH problems. Mental Health disorders are common (31–39 %) among young people attending general practice, and the GP is well placed to identify and intervene. Children in the care of the State or 'Looked After Children' have increased over the years and are recognised as having a greater risk of MH problems than children of similar age living with their families. Similarly children from ethics minorities, again a growing group in Ireland are also at increased risk of MH problems, either by pre-migration risk factors, factors associated with the migration process or as a result of trying to integrate into a new culture. This symposium will commence by setting the scene and presenting epidemiological data on an Irish cohort of 6,000 adolescents aged between 12 and 18. The second presenter will present on a study ascertaining the experiences of youth with MH difficulties in primary care which led to the development of clinical guidelines to assist GPs identify these issues, provide appropriate interventions, and refer to secondary services when necessary. Data from two groups of children known to be at higher risk of MH difficulties, i.e. children in care and from immigrant families, will be presented and strategies of how to provide accessible and acceptable services for them considered.

Keywords: Mental health, looked after children, vulnerable group.

S5-07-02
Psychological well being of immigrant children in Ireland

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Background: In recent years, Ireland has changed from being a country of emigration to a country of immigration. According to the latest Census, 419,733 foreign nationals (amounting to about 10 percent of the population) now live in Ireland. Immigrant children make up approximately 10 percent of the primary school-going population and 6 percent of the second-level population in 2007.

Objective: This paper will focus on multicultural issues in child and adolescent psychiatry in Ireland.

Methods: The presentation will review and analyse studies in the area of transcultural child psychiatry in Ireland.

Results: Several studies reported that more immigrant children were bullied at least once in the last couple of months compared to the Irish and significantly fewer immigrant children were happy. One study looked at the rates of psychological disturbance in a community sample of children under 5 years of age. Borderline clinically significant means ($m = 65$) were detected for the Pervasive developmental disorder on the CBCL 1.5-5 DSM orientated subscale in the group of immigrant children. No other clinically significant difficulties were detected for CBCL 1.5-5 DSM orientated subscales *in either group.* A service-based study indicated that more non-Irish than Irish children were diagnosed with Axis-1 diagnosis (66.7 % vs. 53.4 %; $p < 0.05$).

Conclusions: In most instances Irish studies supported the hypothesis that prevalence of emotional/behavioral problems among native children and immigrant children differ, however follow up studies are needed to confirm these findings.

Keywords: Mental health, immigrant children, well being.

S5-07-03
Youth mental health and addiction in areas of social deprivation: the role of primary care in early intervention and engagement.

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Early intervention in youth mental health and addiction issues is increasingly viewed as easier, cheaper and more effective than traditional psychiatric treatment [1]. Primary care is ideally placed—as a gatekeeper to care, and on-going support for those in the mental health system—for administering early interventions, but only a minority of young people with mental illness seek help from healthcare professionals, including GPs [2]. Mental disorders are common (31–39 %) among young people attending general practice, but most cases are neither diagnosed nor actively treated [3]. These findings indicate a need to 1. Make primary care more attractive for young persons with mental health issues, and 2. Create early interventions which are effective, feasible and acceptable for health professionals and young people in primary care. This project, based in urban deprived areas in Limerick and Dublin, aimed to tackle the dearth of evidence regarding the experiences of young people with mental and substance use disorders in the Irish healthcare system in order to address points 1 and 2 above. Firstly a qualitative inquiry was conducted with service providers and young service users to ascertain the experience of youth mental health in these contexts and how interventions may aim to address them. Findings indicated a need to address the role of context, aid help-seeking, and strengthen the role of the GP in detection, treatment, and onward referral. Secondly, an expert panel aided in the creation of guidelines for use in general practice. Using the qualitative data, as well as comprehensive literature reviews and expert knowledge, a document was created using consensus methods, in order to aid GPs identify youth mental health issues in a socially deprived population, provide appropriate interventions, and refer to secondary services when necessary. Hopefully with a more definitive role created for the GP, primary care can take greater responsibility in identifying and treating mental health and addiction issues in young persons, potentially preventing further problems developing, and freeing up secondary services for more serious cases.

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Keywords: Youth mental health, social deprivation, addiction.

S5-07-04

My World Study, an Irish national study on mental health issues in 6,000 adolescents aged between 12 and 18, and ways to address them

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The study aims to profile the mental health of adolescents and emerging adults in Ireland. The My World Survey studied over 14,000 in terms of both risk and protective factors. Main goals of the study included tracking the emergence of mental health issues, identifying their peak and identifying gender effects. In addition, the study examined socio-demographic risk factors (e.g., family status, family size, parent seen a mental health professional, previously seen a mental health professional) associated with distress and tested the effect of psychosocial factors (e.g., self-esteem, avoidant coping, satisfaction with life, resilience, social support) on depression.

Method: A cross-sectional study was conducted with (i) 6,085 adolescents in 72 randomly selected post-primary schools in Ireland and (ii) 8,221 young people post second level education. Participants ranged in age from 12–25 years (M = 18.18, SD = 3.26) and 59.0 % were female. Participants completed the My World Survey (MWS), which contains a battery of psychometrically reliable instruments. The following risk variables were researched: depression, anxiety, stress, alcohol behaviour, substance misuse, avoidant coping behavior. Protective factors studied included: self-esteem, social support, positive coping strategies, optimism.

Results: The peak age for distress was 18–19, females overall reported high levels of risk and males higher protective factors such as self-esteem. Using the DASS-21 cut-offs, 30 % of the sample was classified as outside of the normal range for depression. Low self-esteem, high avoidant coping behaviour, high substance misuse, low optimism, low informal support structure, age (older), low support from 'one good adult' significantly predicted depression $F(7,11503) = 1509.77$, $p < 0.0001$, with adjusted $R^2 = 47.9$ %.

Discussion: Esteem, low avoidant coping, optimism and a greater number of people to talk to are key resilience factors that need to be incorporated into preventative strategies for depression. The emergence of one good adult as a significant predictor points to the protective role that the presence of a caring adult can have in a young persons life when in need.

Keywords: Emergence of mental health, distress, self-esteem, resilience.

S5-07-05

Looked after children in Ireland and Mental Health needs

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Acknowledgments: The authors would like to thank Colette McAndrew, Margaret Mitchell, Ceili O' Callahan, Dr Brendan Doody and all the social workers who took the time to contribute towards this research.

Abstract: In 2012 a harrowing report into the deaths of children in State care in Ireland was published. This confirmed the already well-established view of these children as physically and emotionally vulnerable, with a higher than expected rate of Mental Health problems. Children in care in Ireland have increased by 27 % in the last decade from 3,000 in 1996 to over 5,000 in 2006. The higher rate of mental health problems in these children emphasise the need for analysis of the outcomes of LAC.

Objective: This study aims to describe the placement histories, service use and mental health needs of a cohort of children in 2 Dublin CAMHS catchment areas. A second study looked at the training in Mental Health of social workers working within the child protection and social services system.

Method: Social Work Team leaders and co-workers within two Dublin child psychiatry services were identified and contacted in relation to the study. Social workers completed a study specific questionnaire (SSQ), relating to all children within their care. Questions were asked about the child's age, gender, duration in care, type and number of placements, reasons for entering care, mental health wellbeing, educational attainment, and contact with various services. The SW was also asked to provide information on the child's family history and current level of contact with their family. SWs were also asked about their own training in the area of MH.

Results: Data was obtained on 174 children (56.5 % of eligible sample) with a mean age of 10.83 (SD = 5.04). 114 (65.5 %) were in care for 3 years or more. 29 (16.7 %) did not have a SW and 49 (37.7 %) had no GP. 50 (28.7 %) were attending CAMHS. Children with more frequent placements were more likely to have a mental health contact, χ^2 (3, n = 157) = 8.45, $p < 0.05$ as were children in residential care, χ^2 (3, n = 157) = 8.45, $p < 0.05$) Nearly half (49.1 %) of SW responding to the survey reported no prior mental health training. The most requested topics for training included specific MH disorders and issues related to various kinds of child abuse and neglect.

Conclusion: Despite their young age (mean 11 years), in the Republic of Ireland, the majority of children are in care for more than 3 years (70 %) with a very high proportion (42 %) being in care for 6 years or longer. Given the increase in numbers in care and the overall decrease in resource allocation to health and social care, individual care planning, training of social care professionals in areas of mental health and prioritizing of resources are essential.

Keywords: Looked after children, mental health, Ireland.

S5-08-01

Help negation among college students in Ireland

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Objective: To examine factors related to help-negation in college students across a variety of problem types.

Background: Research suggests that the majority of young people who experience mental health problems in adolescence do not seek help for them (Rickwood Deane, Wilson and Ciarrochi, 2005) and higher levels of distress have been consistently linked to an increased likelihood of seeking help from no-one, a tendency know as 'help-negation' (Wilson and Deane, 2010).

Method: In the present study, participants were 8,126 third level students (66 % female) ranging in age from 16 to 25 years (M = 20.42, SD = 1.90). Participants completed the My World Survey which assessed help-seeking behaviour and key positive and negative domains of psychological functioning using a number of psychometrically sound instruments.

Results: Findings suggested that help-negation was more common for problems of substance use and depression than for more everyday problems (e.g. problems with family, friends, a romantic partner or college). Chi square analyses revealed that males had an increased likelihood to engage in help-negation for everyday problems, whereas no gender effect in help-negation was evident for problems with substance use or depression. Younger students (16–21 years) were more likely to engage in help-negation for problems with depression whereas older students (22–25 years) were less likely to do so. Higher levels of depressive symptoms were associated with higher levels of help negation for all problem types. Those identified as having a possible alcohol dependence had an increased likelihood to engage in higher levels of help negation for problems with work/college, problems with depression and problems with drug or alcohol use. Multivariate analyses revealed that support from family, $F(2, 6551) = 181.46$, $p < 0.001$, support from friends, $F(2, 6551) = 296.91$, $p < 0.001$, optimism, $F(2, 6551) = 64.92$, $p < 0.001$ and self-esteem $F(2, 6551) = 109.33$, $p < 0.001$, were all significantly associated with help-negation, controlling for depressive symptoms.

Conclusion: Different patterns of help-seeking were identified depending on the problem type. Social support, optimism and self-esteem may serve as protective factors against low levels of help-seeking in college students. Interventions aimed at increasing help-seeking in college students should look at ways to promote these qualities, particularly in younger college students.

Acknowledgements: The My World Survey study was funded by Headstrong, The National Centre for Youth Mental Health.

Keywords: Help-Negation; Help-Seeking; Mental Health; Problem Type; Depression; College Students.

S5-08-02

'One Good Adult' as a protective factor in adolescents' symptoms of depression.

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Background: Research has found a protective relationship between adult support and adolescent outcomes such as depression and drug use (Bogard, 2005; Zimmerman et al., 2002). Although social support from adults have been shown to play a protective role in adolescents' psychological health, the processes through which social support influences depressive symptoms has not been adequately explored. There is some evidence that levels or quality of social support are related to coping strategies in influencing psychological health (Holland and Holahan, 2003; Kim et al., 2010). The current study set out to examine the mediating role of personal factors such as coping strategies in the relationship between 'One Good Adult' and depressive symptoms among adolescents.

Method: The study employed a cross-sectional survey design. A total of 72 post-primary schools in Ireland took part in the My World Survey and participants were 6,021 s level students aged 12–18 years (M = 14.94, SD = 1.63); 51 % were female. Participants completed the MWS which contained internationally recognized measures previously used with adolescents including the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988), Depression, Anxiety and Stress Scale (DASS-21) (Lovibond and Lovibond, 1995), the Coping Strategy Indicator (Amirkhan, 1990) and the Rosenberg Self-Esteem scale (Rosenberg, 1965).

Results: Structural equation modelling was used to test a model of the relationship between 'One Good Adult', personal factors and depressive symptoms. The model for the overall sample was a good fit to the data based on the fit indices (RMSEA = 0.045 (0.044; 0.046), SRMR = 0.062; GFI-0.97). Next, multi-group analyses were conducted to evaluate whether the hypothesized model of factors related to depressive symptoms differed significantly by gender and school cycle. The multi-group model by gender fit the data well, where the structural pathways from 'One Good Adult' to personal factors were significantly stronger for girls than boys. The model did not vary by school cycle. Higher support from 'One Good Adult' was directly related to depressive symptoms, and mediated via personal factors such as personal resources and avoidant coping.

Conclusions: These findings suggest that supportive interactions with parents may bolster personal competence and coping strategies which in turn may facilitate positive emotional wellbeing. Encouraging young people to acknowledge their distress, cognitive restructuring or positive appraisal may be worthwhile coping strategies to reduce depressive symptoms.

Keywords: One Good Adult; Protective Factors; Depressive Symptoms; Adolescence; Youth Mental Health.

S5-08-03

Young people and mental health in Ireland-risk and protective factors of mental health, patterns of help-negation and mental health stigma

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Most mental health problems begin during youth (Kessler et al., 2005). The suffering, functioning impairment, and exposure to stigma and discrimination that is associated with mental health difficulties in young people has obvious public-health significance (Patel et al., 2007). Mental health problems such as depression, anxiety and substance misuse increase during adolescence (Costello et al., 2003; Jones 2013; Murberg and Bru, 2005) and often can persist into young adulthood. Despite the high prevalence of mental health problems in adolescence and young adulthood, young people are poor at seeking professional help (Richwood, Deane and Wilson, 2007). Mental illness stigma is one barrier to help seeking for mental health (Eisenberg et al., 2009). In this symposium, we focus on the mental health of young people in Ireland. The symposium aims to increase our understanding of risk and protective factors of mental health problems across various groups of young people, to provide an insight into their help-seeking patterns and to explore mental health stigma during adolescence. There is a need for future research evidence on the burden, risk and protective factors for youth mental health difficulties from most parts of the world. Furthermore, little research has attempted to understand stigma-related experiences of adolescents with mental health difficulties. Cultural differences can have a profound effect on how policies, plans and specific interventions are formulated and implemented. The current symposium brings together a plethora of Irish-based research on young people's mental health. Clearly, protective factors are important to under how the effect of risk factors can be modified and eliminated. Therefore, Paper 1 looks at how family support and personal resources play a protective role in adolescents' symptoms of depression using the My World Survey national data. Paper 2 explores ethnic differences in mental health outcomes among adolescents. Paper 3 looks at patterns of help-negation in adolescents and young adults. Paper 4 concludes with a retrospective account of having a mental health difficulty during adolescence. The findings from the research presentations will be tied together by the discussant who will pull together the ideas of papers to give an understanding of youth mental health issues in an Irish context.

Educational Learning objectives: Develop an awareness of key risk and protective factors related to mental health outcomes among various groups of adolescents. Consider factors related to patterns of help-negation among young adults across a variety of problem types. Reflect on the stigma-related experiences of adolescents with mental health difficulties.

Keywords: Adolescence; Mental Health; Stigma; Help-Seeking; Vulnerable Groups.

S5-08-04

'Now that I look back I realise that…': Young adults' retrospective accounts of mental health stigma experienced during childhood and adolescence

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Objectives: The aim of this study was to investigate stigma from the perspective of young adults who had experienced a mental health problem during childhood or adolescence. An extensive literature suggests that typically developing children and adolescents hold stigmatising attitudes towards peers with emotional or behavioural problems. Despite this, very little research has focused on how these attitudes are perceived and interpreted by individuals who have themselves experienced a psychiatric disorder. The social identity of youth with mental health problems may be influenced by the stigmatising reactions of others, whereby negative attitudes or discrimination potentially contribute to adverse experiences in the peer group and diminished self-esteem. Therefore, it is imperative that we understand perceived and self-stigma from the point of view of those individuals with lived experience of a mental health problem in childhood or adolescence.

Method: In the present study qualitative data were collected from young adults (aged 18–30 years) who had received a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) or Depression/Anxiety before the age of 18 (n = 15). Young adults provided retrospective accounts of their experiences during their childhood and adolescence. The interview schedule consisted of open-ended questions that focused primarily on functioning within the peer group, experiences in the home and at school, and willingness to disclose information about the mental health problem to others. Interview transcripts were transcribed verbatim and analysed to explore perceptions of peer relations, disclosure decisions, and perceptions of attitudes held by others.

Results: Young adults revealed how their experiences and perceptions changed as they became older. Participants reported experiences of peer problems and reluctance to disclose their mental health difficulties to others during their childhood/adolescence. In addition, many of the young people who participated described feelings of difference and felt that there was a lack of understanding among others.

Conclusions: Youth with mental health problems experience difficulties in many areas of their lives including school and peer relationships. Young adults who had a mental health problem in childhood/adolescence felt that other people had a limited understanding of the difficulties that they faced.

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Keywords: Youth, mental health, depression, anxiety, ADHD, stigma.

S5-08-05

Differences in psychological wellbeing and problem behaviours among racial and ethnic groups of adolescents in Ireland: findings from the My World survey

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Objective: This study explores differences in psychological wellbeing and substance misuse among racial and ethnics groups of adolescents in Ireland based on data from the My World Survey.

Background: Internationally, we know that 75 % of mental health difficulties occur during adolescence. In Ireland, much research has examined mental health and substance misuse among Irish youth populations. Yet, little research to date has investigated racial and ethnic differences in mental health creating a significant barrier to identifying and addressing the health needs of adolescents from diverse cultures and ethnicities in Ireland.

Design: The study employed a cross-sectional survey based design using data from the My World Survey. The sample consisted of 411 adolescents (185 male: 222 female) aged 12–19 attending second-level education. The sample includes 200 White students, 68 Black, 77 Asian and 66 Irish Traveller students. Psychological wellbeing was measured using the DASS-21 (Lovibond and Lovibond, 1995) and problem behaviours were measured by the AUDIT (Saunders et al., 1993) and CRAFFT (Knight et al., 1999).

Results: A series of multi-variate statistics were conducted to examine racial/ethnic differences in mental health outcomes. Irish Travellers were found to have highest scores on measures of depression and anxiety while White adolescents were found to have the lowest. As a group, female Traveller scores indicated mild levels of depression (M = 13.36, SD = 10.98) and moderate levels of anxiety (M = 12.80, SD = 10.44). Male Traveller (M = 8.40, SD = 8.46) and Black male (M = 8.48, SD = 9.58) scores indicated mild levels of anxiety. The scores of drug and alcohol use amongst the female and male Traveller groups were found to be indicative of problematic alcohol use and drug use. Female Travellers scored higher in levels of problem alcohol use than male Travellers whilst male Travellers scored higher on a measure of drug use. Asian males and females had the lowest scores of drug and alcohol use.
Conclusions: The findings clearly identify that Irish Travellers, as a group, were the most vulnerable, while Asian adolescents were the most protected group in relation to their drug and alcohol use. These findings have implications for intervention and suggest that vulnerable groups of adolescents require additional supports. Documenting the existence of mental health inequalities and patterns of problem behaviour among adolescents from different ethnic groups is hoped to contribute towards policy formation and the development of effective health promotion interventions in schools.

Keywords: Ethnicity, psychological wellbeing, substance use, adolescence, vulnerable groups.

M1-01
Attention-deficit/hyperactivity disorder

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Attention-Deficit/Hyperactivity Disorder (ADHD), characterized by a developmentally inappropriate, pervasive and persistent pattern of severe inattention, hyperactivity, and/or impulsivity with an early onset and associated with substantial functional impairment, is one of the most common mental disorders affecting around 5.3 % of children and adolescents.

ADHD symptomatology frequently co-exists with several other types of psychopathology, including oppositional defiant and conduct disorder, emotional lability, anxiety and depression, and persists into adulthood in a substantial number of cases.

The disorder has a complex and probably heterogeneous pathogenesis, including multiple genetic and environmental risk factors of mostly small effect size which are acting together to cause a range of underlying neurobiological and neuropsychological alterations.

According to various national and international guidelines, multimodal treatment components include psychoeducation, psychological interventions and various pharmacological treatment options. Interventions should be based on a comprehensive assessment and diagnosis, involving the integration of information from different sources, and interventions should be closely monitored for both efficacy and adverse effects.

The presentation will summarize the current state of research with a special focus on recent research findings on underlying genetic and environmental risk factors, pathophysiological mechanisms, neurobiological and neuropsychological correlates, associated evidence-based and alternative treatment options and proposed DSM-V changes.

Keywords: ADHD, pathogenesis, diagnosis, treatment.

M1-02
Autism Spectrum Disorders 2013: Transforming Innovation into Policy

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The presentation will review the latest research findings in Autism Spectrum Disorders from epidemiological, etiological, clinical and prognostic viewpoints and will consider how they should inform current and future research, policies and practices in health, education, employment and social services in Europe.

Keywords: Autism spectrum disorders.

M2-01-01
Stimulant treatment in ADHD: functional, health-related quality of life and health utility outcome measures

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Stimulant medications have been used to treat the symptoms of ADHD for over half a century, and their efficacy in clinical trials has been assessed principally using ratings scales based on the symptoms of inattention and hyperactivity-impulsivity listed in the DSM-IV-TR. Yet ADHD affects multiple domains of daily life, including educational achievement and peer or family relations. Evidence of such impairment, usually based on the perceptions of teachers and parents, is required to establish a diagnosis. Optimal treatment should therefore not only reduce symptoms, but also improve day-to-day functioning. This symposium will focus on parent-rated measures of functional impairment, health-related quality of life (HRQoL) and health utility as means of assessing the overall effectiveness of stimulant treatment for ADHD. This approach was taken in two recent international phase 3 trials of the long-acting prodrug lisdexamfetamine dimesylate (LDX), one of which included an extended-release (OROS) methylphenidate reference arm. The four speakers will use results from these studies to evaluate the advantages and disadvantages of the selected instruments, including the issues of proxy assessment, item overlap, psychometric validity and reliability, and sensitivity to treatment. (1) *David Coghill* will first present an overview of study design, a safety data summary, and the primary efficacy outcomes, which were based on the well-established, investigator-rated ADHD Ratings Scale IV (ADHD-RS-IV) and Clinical Global Impressions (CGI) instruments. (2) *Tobias Banaschewski* will describe the Child Health and Illness Profile-Child Edition: Parent Report Form (CHIP-CE:PRF). The raw scores from this generic, paediatric HRQoL instrument are normalised based on a reference population, and its validity and reliability in ADHD have been established. CHIP-CE:PRF has been used in atomoxetine trials, but the results presented are the first data on stimulants in ADHD. (3) *Ce´sar Soutullo* will then discuss the strengths and weaknesses of the Weiss Functional Impairment Ratings Scale-Parent Report (WFIRS-P) in the context of study results. Although designed specifically for ADHD in order to improve sensitivity and provide clinically meaningful data, WFIRS-P lacks published psychometric properties and has been used in only two other pharmacological intervention trials. (4) *Paul Hodgkins* will take a health economist's perspective in his analysis of the data from the Health Utilities Index 2 (HUI-2), a generic, preference-based health status classification and scoring system. He will explore the relationship to other clinical outcomes and briefly discuss how the data help inform reimbursement decisions by health technology assessment agencies. The symposium will conclude with an open discussion of how these results enhance understanding of the influence of psychostimulants on the day-to-day lives of patients with ADHD.

Keywords: Attention-deficit/hyperactivity disorder; lisdexamfetamine dimesylate; methylphenidate; health economics; functional impairment.

M2-01-02

The first European studies of lisdexamfetamine dimesylate in children and adolescents with attention-deficit/hyperactivity disorder

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Introduction: Lisdexamfetamine dimesylate (LDX) is the first long-acting prodrug stimulant for the treatment of attention-deficit/hyperactivity disorder (ADHD). Here we report the primary efficacy and safety results of two European, phase 3 trials of LDX in children and adolescents with ADHD.

Methods: In SPD489-325, patients (aged 6–17 years) with ADHD from 48 sites across 10 European countries were randomized (1:1:1) to a once-daily, optimized dose of LDX (30, 50, or 70 mg/day), placebo or osmotic-release oral system methylphenidate (OROS-MPH, 18, 36 or 54 mg/day) for 7 weeks. The primary outcome measure was the ADHD Rating Scale version IV (ADHD-RS-IV) total score. Patients who received ≥4 weeks of double-blind treatment, reached visit 4, and completed the 1-week post-treatment washout in SPD489-325 were assessed for entry into study SPD489-326; patients from US sites were also evaluated for direct entry. Patients who completed ≥26 weeks of open-label LDX, and whose responder status was confirmed during a fixed-dose, 2-week period, were randomized (1:1) to continue receiving their optimal dose of LDX, or to switch to placebo, for a 6-week, double-blind, randomized-withdrawal period (RWP). The primary outcome was the percentage of patients meeting treatment failure criteria (≥50 % increase in ADHD-RS-IV total score and ≥2-point increase in Clinical Global Impression-Severity of Illness score, compared with RWP start point). Safety outcomes were assessed in both studies.

Results: In SPD489-325, 336 patients were randomized and 196 completed the study. The differences between active drug and placebo in the least squares mean change in ADHD-RS-IV total score (95 % confidence interval [CI]) from baseline to endpoint were statistically significant ($p < 0.001$) for LDX (−18.6 [−21.5, −15.7]) and OROS-MPH (−13.0 [−15.9, −10.2]). In SPD489-326, 276 patients were enrolled in the open-label period, 157 were randomized in the RWP and 76 completed the study. During the RWP, significantly fewer patients receiving LDX met treatment failure criteria (15.8 % [95 % CI, 7.6 %, 24.0 %]) compared with those receiving placebo (67.5 % [57.1 %, 78.0 %]; $p < 0.001$). Most treatment failures occurred at or before the week 2 visit following randomization (LDX, 6/12; placebo, 39/52). In both studies, the most common treatment-emergent adverse events reported in patients receiving LDX were decreased appetite, headache and decreased weight.

Conclusions: LDX produced robust improvements in core symptoms of ADHD in children and adolescents. Continued LDX treatment was associated with maintenance of efficacy compared with placebo. The safety profile of LDX was generally consistent with that of stimulant therapy. Supported by funding from Shire Development LLC.

Keywords: ADHD Rating Scale version IV; attention-deficit/hyperactivity disorder; lisdexamfetamine dimesylate.

M2-01-03

The child health and illness profile as a measure of health-related quality of life in stimulant-treated children and adolescents with ADHD.

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Introduction: Optimal management of ADHD aims not only to ameliorate patients' symptoms, but also to improve their health-related quality of life (HRQoL). The Child Health and Illness Profile-Child Edition: Parent Report Form (CHIP-CE:PRF) is a generic (not disease-specific) instrument designed to assess HRQoL in children. The 76 items are grouped into 5 domains and 12 subdomains, and raw scores are standardized to T-scores (mean = 50, standard deviation = 10), based on US community samples. Published studies have demonstrated the reliability and validity of the CHIP-CE:PRF in children and adolescents with ADHD, but it has not previously been used as an outcome measure for stimulant pharmacotherapy.

Methods: Parents of 6 to 17-year-old patients with ADHD completed CHIP-CE:PRF assessments in two recent, consecutive, phase 3 clinical trials of the efficacy and safety of the prodrug lisdexamfetamine dimesylate (LDX). SPD489-325 was a European, 7-week, double-blind, randomized, placebo-controlled study, and included osmotic-release oral system methylphenidate (OROS-MPH) as a reference treatment. Patients from this trial, together with additional US patients, entered a subsequent study, SPD489-326, in which open-label LDX treatment for ≥ 6 months was followed by a 6-week double-blind, placebo-controlled, randomized-withdrawal period. CHIP-CE:PRF data were analysed using an ANCOVA model of the change in domain T-score from study baseline.

Results: In study SPD489-325, baseline CHIP-CE:PRF T-scores in all treatment groups were lowest in the Achievement domain (mean in the range 30.1–31.2), followed by Risk Avoidance (31.4–34.7), Satisfaction (34.4–36.2), Resilience (35.5–37.5) and Comfort (43.0–44.5). At endpoint in the LDX group, there were mean improvements compared with placebo of 10.5 points (95 % confidence interval 7.9, 13.0; $p < 0.001$) in Achievement, 9.9 (7.1, 12.7; $p < 0.001$) in Risk Avoidance, 3.8 (1.1, 6.6; $p < 0.01$) in Resilience and 3.5 (0.6, 6.5; $p < 0.05$) in Satisfaction. OROS-MPH treatment effects were also statistically significant in these domains; neither treatment affected Comfort domain T-scores. In study SPD489-326, mean domain T-scores were stable or increased during open-label LDX treatment. In the 6-week randomized-withdrawal period, there was statistically significant deterioration at endpoint in the placebo group only ($p < 0.05$ compared with baseline, in all domains). These changes were statistically significant compared with LDX in Risk Avoidance, Achievement and Satisfaction ($p < 0.001$).

Conclusions: The burden of illness in children and adolescents with ADHD was reflected in baseline CHIP-CE:PRF T-scores ≥ 1 SD below 50 in four of five CHIP-CE:PRF domains. Acute treatment with LDX or OROS-MPH led to improved HRQoL scores in these domains, with the greatest effect seen in the domain with the most profound deficit at baseline (Achievement). These benefits were maintained during long-term LDX treatment, but HRQoL scores declined following treatment withdrawal.

Supported by funding from Shire Development LLC.

Keywords: Health-related quality of life; child health and illness profile; lisdexamfetamine dymesylate; methylphenidate; ADHD.

M2-01-04

Assessing ADHD stimulant treatment efficacy using the Weiss Functional Impairment Rating Scale: strengths and weaknesses

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Introduction: Patients with ADHD encounter a range of day-to-day problems that are characteristic of the disorder, and these represent important potential treatment targets. The Weiss Functional Impairment Ratings Scale-Parent Report (WFIRS-P) was designed specifically for assessment of functional impairment in children with ADHD. It comprises 50 items, grouped into 6 domains, and parents or guardians use a Likert scale (0–3) to score each item. To date, reported use of WFIRS-P in clinical trials is limited and its psychometric validation has yet to be published. Here, we present WFIRS-P data from two recent, consecutive, phase 3 studies of the efficacy and safety of the prodrug lisdexamfetamine dimesylate (LDX).

Methods: SPD489-325 was a European, 7-week, double-blind, randomized, placebo-controlled study, and included osmotic-release oral system methylphenidate (OROS-MPH) as a reference treatment. Patients from this trial, together with additional US patients, entered a subsequent study, SPD489-326, in which open-label LDX treatment for ≥ 6 months was followed by a 6-week double-blind, placebo-controlled randomized-withdrawal period. WFIRS-P data were analysed using an ANCOVA model of the mean change from study baseline in mean domain score or total score.

Results In study SPD489-325, mean WFIRS-P total scores at baseline were 1.01 (95 % confidence interval [95 % CI] 0.92, 1.10) for the LDX treatment group, 1.10 (1.01, 1.19) for placebo and 1.07 (0.98, 1.15) for OROS-MPH. At endpoint, there were statistically significant ($p < 0.001$) placebo-adjusted mean improvements in total score of –0.3 (95 % CI −0.4, −0.2) for LDX and −0.2 (−0.3, −0.1) for OROS-MPH. The effects of both drugs were statistically significant in the Learning and School ($p < 0.001$), Family ($p < 0.001$), Social Activities ($p < 0.001$) and Risky Activities ($p \leq 0.01$) domains, but only OROS-MPH was significant in Life Skills and Child's Self Concept ($p < 0.05$).

In study SPD489-326, mean WFIRS-P scores were stable or decreased during open-label LDX treatment. In the 6-week randomized-withdrawal period, only the placebo group experienced statistically significant deterioration from baseline to endpoint in WFIRS-P total ($p < 0.001$) or domain ($p < 0.05$) scores. These changes were statistically significantly different to those for LDX in the Learning and School, Family, and Risky Activities domains ($p < 0.01$) and in total score ($p < 0.001$).

Conclusions: These results indicate that acute treatment with LDX or OROS-MPH is associated with improvement in the day-to-day functioning of children and adolescents with ADHD, as measured using mean WFIRS-P domain or total scores. Continued long-term treatment with LDX was required for maintenance of this benefit, which was at least partially lost in patients whose treatment was withdrawn. The WFIRS-P results complement the symptom-based and generic quality-of-life data from these studies, potentially enabling evaluation of the relationships between different outcome measures during stimulant treatment. Supported by funding from Shire Development LLC.

Keywords: Health-related quality of life; Weiss Functional Impairment Rating Scale; lisdexamfetamine dymesylate; methylphenidate; ADHD.

M2-01-05

Health utility scores in children and adolescents with attention-deficit/hyperactivity disorder: response to stimulant treatment

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Introduction: The Health Utilities Index-Mark 2 (HUI2) is a generic, preference-based assessment for measuring general health status. The self-administered, proxy-assessed version of HUI2 comprises 15 questions that assess the attributes of sensation, mobility, emotion, cognition, self-care and pain. HUI2 has been used to measure morbidity burdens in patients resulting from a range of disorders but has not previously been applied to patients with attention-deficit/hyperactivity disorder (ADHD). Further, HUI2 (or similar preference-based instruments) is routinely used to measure treatment benefit (utilities) in economic evaluations for Health Technology Assessment Agencies. The objective of the present study is to quantify the utility gain using HUI2 following treatment with the prodrug stimulant lisdexamfetamine dimesylate (LDX) in children and adolescents with ADHD.

Methods: Study SPD489-325 was a 7-week, double-blind, randomized, placebo-controlled study of LDX in patients (6–17 years) with ADHD; osmotic-release oral system methylphenidate (OROS-MPH) was included as a reference treatment. Parents or guardians of patients completed HUI2 assessments at baseline and days 28 and 49. Utility values were estimated for responders and non-responders to therapy (irrespective of treatment) where response was defined as a Clinical Global Impressions-Improvement score of 1 or 2, or reductions in ADHD-Rating Scale-IV score of 25 or 30 %.

Results: Of 336 randomized patients in study SPD489-325, 317 were included in the full analysis set (LDX, $n = 104$; placebo, $n = 106$; OROS-MPH, $n = 107$) and 196 patients completed the study. At endpoint and across all treatment groups, mean (SD) HUI2 utility scores were higher for responders than non-responders when response was based on a CGI-I score 1 or 2 (0.896 [0.0990], $n = 287$ vs. 0.838 [0.1421], $n = 168$), a reduction from baseline in ADHD-RS score of $\geq$25 % (0.899 [0.0969], $n = 338$ vs. 0.809 [0.1474], $n = 115$) or a reduction from baseline in ADHD-RS score of $\geq$30 % (0.902 [0.0938], $n = 322$ vs. 0.814 [0.1477], $n = 131$).

Conclusions: This is the first clinical trial to have used HUI2 as an outcome measure for stimulant treatment in patients with ADHD, and provides opportunities to evaluate the relationship between ADHD symptoms and utility scores as well as to perform pharmacoeconomic evaluations using utilities generated within the clinical study. The present results indicate that improvement in the symptoms of ADHD is reflected in higher utility scores. The utility weight estimates obtained in children and adolescents with ADHD using HUI2 were similar to those previously obtained using other health utility instruments (e.g., EQ5D).

Supported by funding from Shire Development LLC.

Keywords: ADHD, lisdexamfetamine dimesylate, LDX, health utilities.

M2-02-01

Early diagnosis and intervention of children and adolescents at ultra high risk of psychosis: a pilot study in Italy

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One of the main strategies followed over the last 15 years to improve outcomes in psychosis is to detect early signs of the emerging disorder before sustained symptoms occur. The ultra-high risk (UHR) criteria are the most widely used to diagnose individuals in a putative prodromal phase. They detect attenuated psychotic symptoms (APS), brief limited intermittent psychotic symptoms (BLIPS), genetic risk and deterioration syndrome (GRD). However, the feasibility of the UHR approach in specific groups such as children and adolescents is underinvestigated.

Objectives: We describe here the feasibility of the first Italian service for early diagnosis and treatment of UHR children and adolescents.

Setting: Neuropsychiatric unit, Neurological National Institute C. Mondino, Pavia, Italy.

Methods: We used the Comprehensive Assessment of At Risk Mental State (CAARMS) to determine if help-seeking patients met one of the UHR criteria at baseline.

Results: we present preliminary data from the 2-month pilot phase. There are no missing data. A CAARMS-trained Child and Adolescent Psychiatrist evaluated 14 patients (10 females, 4 males; mean age 14 years, 11–17.6), 12 referred from the Neuropsychiatry ward, 2 from outpatient services. 6 of them had a low socio-economic status, 5 medium, 3 high. 11 of them were white Europeans, 1 African, 2 South Americans. All successfully completed the interview (mean time 84 min, 22.6 SD) over 2 sessions without interruptions or subjective discomfort. 6 of them met inclusion criteria for UHR (2 GRD, 3 APS, 1 BLIPS), 3 were already psychotic (psychotic disorder NOS), and 5 were not at risk (diagnoses of depression (2), conversion, borderline personality disorder, eating disorder). Median CAARMS scores on the diagnostic subscales were as follows: unusual thought content I (intensity) 1 (25°–50°p 0–6), F (frequency) 1 (25°–50°p 0–4, 25); non-bizarre ideas I 2 (25°–50°p 0–3,25), F 3 (25°–50°p 0–4); perceptive abnormalities I 1 (25°–50°p 0–3.25), F 1 (25°–50°p 0–3.25); disorganised speech I 2 (25°–50°p 0–3.25), F 2,5 (25°–50°p 0–6).

Conclusions: Our pilot results seem to suggest that the UHR approach can be feasible and easily integrated in the Italian outpatient care of children and adolescents with neuropsychiatric disorders. The Italian version of CAARMS can be successfully administered to adolescents with no substantial discomfort. Further research in our cohort will establish the prognostic validity of the UHR criteria and their applicability to the special needs of children and adolescent samples.

Funding: Italian Ministry of University and Research.
Keywords: Psychosis, UHR, children, adolescents.

M2-02-02

Persistence of the extended psychosis phenotype: Link between vulnerability and clinical need

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The pathway from the earliest and mildest expressions of psychosis to clinical disorder is highly variable and heterogeneous. A better understanding of the psychosis phenotype and how early states develop into clinical disorder will offer opportunities for early intervention or primary prevention of psychotic disorders.

Using latent growth modeling in three general population samples, we investigated the development of subclinical expression of psychosis over time in healthy individuals. Two of these samples were adolescents (N = 2,230 and N = 881, followed-up for respectively 6 and 3 years), and one consisted of young adult female twins (N = 566, followed-up for 2 years).

Differential developmental trajectories of psychotic symptoms were found. In all samples, the large majority of participants reported low levels of psychotic experiences over time. In both adolescent samples, smaller subgroups of participants reported increasing or decreasing levels of psychotic experiences over time. Importantly, in all samples a small subgroup of individuals was identified reporting persistently high levels of psychotic experiences over time. These clinically relevant subgroups also reported higher levels of other psychopathology, functioned worse, applied more non-adaptive coping and used more mental health services. In adolescents, persistence of psychotic experiences was associated with risk factors such as trauma, cannabis use and parental psychiatric history. In young adult twins, persistence of psychotic experiences was also predicted by trauma and by having a monozygotic twin with persistent psychotic experiences.

In sum, the subclinical expression of psychosis is present and dynamic in adolescence; this expression is less pronounced and more stable in young adulthood. This early expression of psychosis develops in a broader psycho(patho)logical context, in interaction with environmental and genetic liability. Studying longitudinal patterns of subclinical psychotic experiences over time may elucidate how the extended psychosis phenotype runs its highly variable course. Persistence of psychotic experiences may be a more fruitful phenotype to study compared to cross-sectionally assessed experiences, because these are both common and dynamic in nature. The phenotype of persisting experiences, being intermediate between incidental subclinical psychotic experiences in healthy individuals and high-risk status for psychosis in its psychotic expression, may form the bridge that covers the gap on the hypothesized psychosis continuum between general and clinical populations.

Keywords: Subclinical psychosis, development, extended phenotypes, dynamic development.

M2-02-03

Childhood IQ and risk for later psychotic and non-psychotic psychopathology

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Background: There is a continuum of psychotic experience in the general population, with severe and relatively rare clinical syndromes at one end and milder, more common phenomena at the other. Lower childhood IQ is well established as risk factor for schizophrenia and has also been reported among individuals who later experience milder psychotic symptoms. This study aimed to assess the extent and specificity of the association between childhood cognitive development and adult psychotic phenomena in the British population.

Methods: Using a unique sample, the National Survey for Health and Development (1946 British birth cohort), we investigated associations between childhood cognitive function, measured at ages 8, 11 and 15 years, and later psychopathology. Adult psychotic and non-psychotic symptoms were assessed at age 36 using a nurse-led interview, and at age 53 using the self-reported Psychosis Screening Questionnaire and General Health Questionnaire (GHQ-28). Schizophrenia caseness was ascertained at age 43 using multiple sources of information.

Results: Lower childhood cognitive scores were observed throughout the psychotic continuum when compared with those reporting no psychotic phenomena. Childhood cognition was most affected among individuals who would later develop schizophrenia, then among those with clinically-relevant psychotic symptoms at age 36, and least affected among the group who self-reported psychotic experiences at age 53. High levels of non-psychotic symptoms were also common in late life, but were not associated with poorer childhood cognition after adjustment for the presence of psychotic symptoms.

Discussion: Lower childhood cognitive ability is a risk factor for both common and mild psychotic-like experiences and rarer, more severe phenomena. We believe this reflects a continuum of phenotypic expression that is driven by variation in early neurodevelopment and is relatively specific to psychotic symptoms. Previous associations between childhood cognition and other forms of adult psychopathology may have been driven in part by comorbidity with psychotic symptoms that are usually unmeasured in population studies.

Keywords: psychosis.

M2-02-04
The attenuated psychosis syndrome: a research agenda for DSM-6

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“High risk” criteria have been developed over the last 18 years to describe a group putatively in the prodromal stage of a first episode of psychosis. Most people who meet high risk criteria have attenuated psychotic symptoms. This led to a proposal to include this sub-group in the Diagnostic and Statistical Manual of Mental Disorders as a disorder named Attenuated Psychosis Syndrome (APS). Despite the consistent finding that there is considerable impairment and a high risk of developing a psychotic disorder associated with the attenuated psychosis syndrome, there has been considerable controversy around the idea of formally codifying it into a diagnosis in the Diagnostic and Statistical Manual of Mental Disorders (DSM 5). One concern was that a formal diagnosis would attract stigma and discrimination. Another was that it would lead to increased antipsychotic prescription. Both of these issues clearly need further examination. Further, while reliability of assessment of the attenuated psychosis syndrome has been demonstrated in previous studies using structured interviews, low reliability of the attenuated psychosis syndrome was found in Diagnostic and Statistical Manual of Mental Disorders field trials, and hence the reliability of assessment and clinical utility in routine practice needs to be assessed and improved. Expanding the range of outcomes is one option, and should be accompanied by the search for markers of different trajectories, treatment trials and exploring the possibility of a pluripotent risk syndrome. The relationship between the high risk criteria and psychotic experiences in the general population also needs further study.

Keywords: Psychosis; at risk mental state; prodrome.

M2-02-05
Specificity of childhood psychotic symptoms for predicting schizophrenia by 38 years of age: a birth cohort study

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Background: Childhood psychotic symptoms have been utilized as a sub-clinical phenotype of schizophrenia in etiological research and as a target for preventative interventions. However, recent studies have cast doubt on the specificity of these symptoms for schizophrenia, suggesting alternative outcomes such as anxiety and depression. Using a prospective longitudinal birth cohort we investigated whether childhood psychotic symptoms predicted a diagnosis of schizophrenia or other psychiatric disorders by 38 years of age.

Method: Participants were drawn from a birth cohort of 1,037 children from Dunedin, New Zealand, who were followed prospectively to 38 years of age (96 % retention rate). Structured clinical interviews were administered at age 11 to assess psychotic symptoms and study members underwent psychiatric assessments at ages 18, 21, 26, 32 and 38 to obtain past-year DSM-III-R/IVdiagnoses and self-reports of attempted suicides since adolescence.

Results: Psychotic symptoms at age 11 predicted elevated rates of research diagnoses of schizophrenia and PTSD as well as suicide attempts by age 38, even when controlling for gender, social class, and childhood psychopathology. No significant associations were found for persistent anxiety, persistent depression, mania or persistent substance dependence. Virtually none of the children presenting with age-11 psychotic symptoms were free from disorder by age 38.

Conclusions: Childhood psychotic symptoms were not specific to a diagnosis of schizophrenia in adulthood and thus future studies of early symptoms should be cautious in extrapolating findings only to this clinical disorder. However, these symptoms may be useful as a marker of adult mental health problems more broadly.

Keywords: Childhood, longitudinal, posttraumatic stress disorder, psychosis, suicide.

M2-02-06
Psychotic symptoms and population risk for suicide attempt in adolescence: a prospective cohort study

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Background: Community and clinical research over the past decade has demonstrated that hallucinations and delusions, the classic symptoms of psychosis, are far more prevalent in the population (at both an attenuated and frank level) than actual psychotic disorder. These symptoms are especially prevalent in childhood and adolescence. Recent cross-sectional studies have suggested an association with suicidal behaviour but there have been no longitudinal studies to date.

Method: The Saving and Empowering Young Lives in Europe (SEYLE) study is a randomised controlled trial on suicide prevention in adolescents aged 13–16 years across 12 European countries (registered in the German Clinical Trials Register, DRKS00000214). One of the goals of the study was to assess psychotic symptoms (attenuated or frank) as a clinical marker of risk for suicide attempt.

Outcome measures: (1) Suicide attempts at 3-month follow up, (2) suicide attempts at 12-month follow up and (3) suicide attempts that occurred proximal to a report of psychotic symptoms (in the 2 weeks preceding an assessment-acute suicide attempts).

Results: Seven percent of the sample reported psychotic symptoms at baseline. Of these, 7 % reported a suicide attempt by 3 month follow up, compared to 1 % of the rest of the sample (odds ratio [OR], 10.0; 95 %CI 2.2–45.4), and 20 % reported a suicide attempt by 12 month follow up, compared to 2.5 % of the rest of the sample (OR, 11.3; 95 %CI, 4.4–28.6). Among young people with baseline psychopathology who reported psychotic symptoms, 14 % had a suicide attempt by 3 months (OR, 17.9; 95 %CI, 3.6–88.8) and 34 % had a suicide attempt by 12 months (OR, 32.7; 95 %CI, 10.4–102.4). Looking at suicide attempts that occurred proximal to (within 2 weeks of) each of the 3 assessment points (acute suicide attempts), individuals with psychopathology who reported psychotic symptoms had a nearly 70-fold increased odds of acute suicide attempts (OR,

67.5; 95 % CI, 11.4–399.2). Differences were not explained by non-psychotic psychopathology symptom burden, multimorbidity or substance use. In a causative model, the population attributable fraction for psychotic symptoms in terms of suicide attempts would be 55–74 %.

Conclusions: Young people with psychopathology who report psychotic symptoms are at clinical high risk for suicide attempt. Increased emphasis on careful clinical assessment of psychotic symptoms (attenuated or frank) in child and adolescent mental health services, and improved understanding of the pathological significance of these symptoms, is urgently needed.

Keywords: Suicide, psychosis, psychotic symptoms, epidemiology.

M2-03-01

Persistent disruptive behaviours becoming persistent school exclusion and the role of attention-deficit/hyperactivity disorder

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The exclusion of children from the school environment, either on a fixed-term or a permanent basis, is a disciplinary tool used in primary and secondary schools throughout the UK. Such exclusion is usually instigated following an infringement of the school's behavioural policy where precipitating factors may include physical assault, verbal abuse, threatening or racist behaviour, bullying, theft, or sexual misconduct (Department for Children, Schools and Families, 2009).

"Persistent disruptive behaviour" is a term that is widely used in the exclusion process, although there is no standardized definition and used to cover a spectrum of behaviours, from calling-out in class, annoying/distracting other students, and general attention seeking, to more aggressive actions.

For both, fixed and permanent types of exclusion, "persistent disruptive behaviour" was most commonly cited as the reason for exclusion, accounting for 23 % of fixed-term exclusions and 31 % of permanent exclusions in 2007/2008 (Department for Children, Schools and Families, 2009). National figures from the academic year 2006/2007 showed a similar trend (Department for Children, Schools and Families, 2008). This is consistent with a 2001 report by the UK government's Research, Development and Statistics Directorate (RDS), in which disruptive or difficult behaviour in the classroom was typically behind the decision to exclude a child from school (Berridge et al., 2001).

ADHD symptoms manifested over a prolonged period of time may place a child at risk of exclusion, especially if the underlying cause of these behaviours is not recognized and appropriately managed.

Considering the relatively high prevalence of ADHD among school-age children in the United Kingdom, it is plausible that many children excluded from schools for disruptive behaviour are showing symptoms of unidentified, untreated, or poorly managed ADHD. In addition unrecognized ADHD may, at least in part, also help to explain the disproportionate rates of school exclusion among boys. In this presentation, I will examine the role of underlying behavioural disorders in school exclusion and specifically explore the potential role of ADHD in disruptive behaviours and one of the main reasons for the higher rates of exclusion of boys.

Keywords: Persistent school exclusion; hyperactivity disorder; disruptive behaviours; boys and girls exclusion.

M2-03-02

The role of educational psychologists in Ireland in addressing the mental health care of children and adolescents

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Educational psychology owes its creation to the need for answers to questions concerning learning, cognition, development, motivation and pedagogy, and it is these questions that help to define educational psychology and its purpose (Hagstrom et al. 2007). Significant progress has occurred throughout the 20th century in changing the role of educational psychologists to better serve students needs. In considering the future of Educational Psychology Ehrhardt-Padgett et al. (2004) queried whether educational psychologists were rising to meet the developmental challenges that face students within the context of schools. In the United States educational psychologists are recognized as qualified to contribute to School Based Mental Health Services, given their expertise in learning and psychological theory (Rappaport et al., 2003). However, educational psychologists spend less than one quarter of their time providing mental health services, as their roles are traditionally oriented towards assessment (Suldo et al., 2010). In Ireland there is no information on the role of Irish educational psychologists in the mental health care of children and adolescents. Through a mixed methods study the researcher sets out to investigate the current and potential role of Irish educational psychologists in addressing the mental health care of children and adolescents, and to identify the personal and systems level factors that facilitate and inhibit the participation of educational psychologists in this area. By so doing, the researcher seeks to answer the following question:

Are educational psychologists in Ireland realizing their potential for participation in mental health care?

Keywords: Educational psychology, mental health.

M2-03-03

Mental health in school

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Mental health problems affect approximately one in ten children aged between five and fifteen (Meltzer et al., 2000) and the prevalence rates in psychopathology increases as children enter adolescence. Schools are an ideal setting for the promotion of emotional and social wellbeing and can have a significant impact on childrens' mental health (Kasen, 1990). Teachers have an invaluable role in promoting mental health and increasing mental health awareness in young people (Barry et al., 2009). The World Health Organisations Health Promoting Schools model has been designed as a template for the implementation of a whole school approach to physical and mental health (WHO, 1997). Interventions which promote mental health have been found to be effective when they use a whole school approach and can result in long term benefits for young individuals including their emotional and social functioning (Jané-Llopis et al. 2005, Barry et al. 2009). Similarly, a systematic review of Health Promoting Schools found that interventions which use a combination of classroom approaches and changes to the school ethos with the family are more likely to be effective than classroom based interventions (Lister Sharpe, 1999).

Educational Learning Objectives:

To develop an awareness of the context of working within schools and develop an understanding of whole school approaches.

To consider specific preventative programmes which can be implemented within schools.

To consider training specific approaches with school based staff which may enhance understanding, prevention and detection of mental health problems.

Keywords: Mental Health, School.

M2-03-04

The PROMISE randomised controlled trial: school based CBT for the prevention of depression in young adolescents

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Randomised controlled trials have demonstrated that Cognitive Behaviour Therapy (CBT) is an effective psychological treatment for adolescent depression. However psychological treatments have limited reach, many adolescents do not respond and relapse rates are high resulting in growing interest in depression prevention programmes. Schools offer a convenient location to deliver these programmes although methodologically robust evaluations under everyday conditions are required to prove their effectiveness. This presentation will describe the results of a school based depression prevention programme, the PROMISE study. Young adolescents ($n = 5{,}030$) aged 12–16 from 8 UK secondary schools were randomly assigned to a CBT programmes (Resourceful Adolescent Programme), attention control or usual school provision. The 9 module CBT programme was delivered to whole classes of young people by trained and supervised facilitators. The programme teaches skills designed to develop and maintain positive self-esteem; emotional recognition and management; recognise, challenge and change unhelpful cognitions; develop problem solving; identifying support networks and conflict resolution. Young people completed a mood screen (the short mood and feelings questionnaire) on two occasion two weeks apart. Those who scored 5 or more on both occasions were classified as "high risk" of depression. 1,064 (21 %) adolescents were identified as "high risk" and were assessed at baseline, 6 and 12 months. The primary outcome was mood (assessed by the short Mood and Feelings Questionnaire) with secondary outcomes being anxiety (Revised Anxiety and Depression Scale RCADS-25); self-esteem (Rosenberg Self-Esteem Scale), negative thoughts (Children's Automatic Thoughts Scale CATS) and sense of school belonging (Psychological Sense of School Membership). The results from the trial failed to find a significant effect of the intervention at 12 month follow-up. The results will be presented and the future role of school based depression prevention programmes discussed.

Conflict of interest: None.

Keywords: Depression, Prevention, Schools, CBT.

M2-03-05

Developing a training module for children with emotional and mental health problems which is relevant to teachers

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It is now recognised that childhood mental health problems represents a serious impediment to the emotional, physical and financial well being of the child and their family. It is a leading cause of life-long disability with significant morbidity and mortality and there is a real risk of persistence into adulthood for many disorders. Accepted prevalence rates are 20 % of children will suffer from psychological problems, 10 % suffering from mental health problems with some impairment. Up to 5 % of children will have behavioural problems or ADHD.

Childhood mental health problems have a significant negative impact on education and socialisation. Although ADHD and other behavioural problems are the most common, internalising disorders such as anxiety and depression can also significantly affect a child's capacity for effective learning. Teachers faced with teaching such children are often at a loss to try and establish which teaching method is optimum, and how to help the distressed child in a broader sense. Balancing the needs of the child with mental health problems with those of other students in the class can often be difficult. Promoting positive mental health amongst all students would help not only address the needs of the child with difficulties but create an environment which is supportive and nurturing to all children.

The Programme for Action children, developed in 2003, is committed to improving quality, standards and equity of service provision for children and young people in all aspect of health. PAC has developed a training module for children with emotional and mental health problems to be delivered to Area Medical officers and Public health nurses, as part of their National Training Programme for in Child Health Screening, Surveillance and Health Promotion. This programme is delivered over 12 h and covers aspects such as identifying and managing common behavioural problems, emphasising the importance of attachment with significant others, promotes optimal parenting and highlights specific mental health problems that the clinician should be aware of to ensure early onward referral.

This talk would aim to give an over view of the PAC training programme, provide attendees with the Review of evidence manual, and ask for participation into how this training programme could be adapted and delivered to meet the needs of teachers.

Keywords: Mental health, teachers, programme for action training, service provision.

M2-04-01

Promoting attachment security through parenting interventions

Stephen Scott

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Parenting programs are well established as an effective treatment for conduct problems, but less is known about this initiation of attachment insecurity and conduct problems. This presentation will demonstrate findings from a number of recent studies, using state-of-the-art measures and good sample sizes, that will address the following issues:

Can attachment be measured reliably and validly beyond infancy through story stem tasks in Middle childhood? What is the association of attachment security with parenting style, and conduct problems? Do behaviourally-based parenting programs improve sensitive responding?

Can attachment be measured reliably and validly in adolescence? Does it simply reflect current parenting quality or does it have greater explanatory power? In severely abused children who were taken into foster care, do they keep insecure patterns and transfer these to their foster carers, or can they ever instead develop fresh, secure attachments to the Foster carers?

References:
O'Connor T, Matias C, Futh A, Tantam G, Scott S (in press) Social learning theory-based parenting intervention promotes attachment-based caregiving: results from a randomized clinical trial. J Clin Child Adolesc Psychol
Joseph M, O'Connor T, Briskman J, Maughan B, Scott S (in press) The formation of secure new attachments by children who were maltreated: an observational study of adolescents in foster care. Dev Psychopathol
Matias C, O'Connor T, Futh A, Scott S (under review) Observational attachment theory-based parenting measures predict children's attachment narratives independently from social learning theory-based measures. Attachment Human Dev

Keywords: Attachment.

M2-04-02

Psychological therapies for ADHD: can they be made to work?

Edmund Sonuga-Barke

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ADHD remains one of the commonest severe disorders of childhood, with serious implications for later mental health. Parenting problems are often present in affected young people. Whether as consequences of the disorder, or as contributions to the origin and course, they need to be addressed by clinical services. Stimulant medication is currently the first line and most efficacious treatment for ADHD. Although it is strikingly effective for many patients in terms of short term symptom control it is limited in a number of other ways: Normalisation of symptoms is rare; long term efficacy remains unclear; some areas of functioning are not improved; side effects are common though rarely severe; translation from RCTs to normal care can be problematic; and many patients and parents do not see medication as being right for them and their family. For all these reasons there is an urgent need to develop effective non-pharmacological treatments to complement medication approaches. Several psychological approaches are in current use, and are often recommended, but usually with the caveat that further research is necessary. In this talk I will; (A) discuss the strengths and limitations of medication in ADHD treatment; (B) systematically review the evidence for the value of currently available psychological alternatives and highlight the need for more effective approaches; (C) highlight the importance of basing therapeutic innovation in this area on basic ADHD science while at the same time ensuring ecological relevance and; (D) emphasize the value of early intervention. Finally, I will discuss the potential value of the New Forest Parenting Programme. This is an evidence-based science driven treatment for ADHD in preschool children.

Keywords: Psychotherapy ADHD.

M2-04-03

Enabling parents to support their children's learning at home

Kathy Sylva

University of Oxford, Department of Education, Oxford, UK

The Association for Child and Adolescent Mental Health is a UK-based body with a key purpose of bringing together the different disciplines involved in the promotion of child mental health, and enabling research, clinical and educational approaches to combine. This paper will consider how far parenting interventions—which are known to be valuable in the reduction of antisocial and other behavioural problems—can also help to support children's attainment in their education. The issue is particularly relevant to clinical services because of the negative impact of educational failure upon life opportunities. Employment opportunities are restricted for those with literacy difficulties; antisocial and other problems can result from social exclusion. There is a cumulative cascade of disadvantage.

Educational research has naturally focussed primarily on what happens in schools and how children can develop competence and self-efficacy. This, however, is only part of the story. Families have a substantial role in the support of children's educational progress.

Research from many countries has established the strong relationship between between social factors, especially parental education, and children's achievement. Education has a key role to play in 'narrowing the gap' between children from families with highly educated parents and those where parents have lower qualifications and occupational status. This paper will describe some interventions aimed at supporting parents to extend the work of schools related to reading and writing. It will focus on recent trials in England to train parents to support their children's literacy skills at home. Do they 'work' and under what conditions?

Keywords: Parenting Schools Education.

M2-04-04

ACAMH Symposium: "The impacts of parenting interventions"

Eric Taylor, Stephen Scott

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Introduction: Parent training is an effective and widespread intervention in many countries—especially for reducing disruptive behaviour problems. This symposium will aim to take the issues further, and consider the value of interventions for emotional, inattentive/impulsive and cognitive/educational problems in children. It will reflect the central interest of the Association for Child and Adolescent Mental Health in the effects of parenting practices. Professor Stephen Scott researches the effects of parent training, and will consider whether the programmes' benefit can extend to the attachment and emotional security of the children. Professor Edmund Sonuga-Barke is leading research into the effects of parent training on ADHD, covering both the potential and the limitations for this purpose. His talk will emphasise the importance of improving interventions for ADHD and the methods available. Professor Kathy Sylva is an expert in educational research, and will discuss the impact of parenting programmes on children's learning at school. Each of these speakers will present empirical data and theoretical considerations from their own research programmes and the international literature.

These presentations will lead to a discussion about the current state of knowledge on parenting interventions, both in trials and in practice. Interaction with the audience will clarify international aspects of closing the gap between the efficacy of parenting interventions in trials and their effectiveness in the real world.

Speakers:

Professor Stephen Scott (National Academy for Parenting Research, Institute of Psychiatry, Kings College London) is the 2013 Emanuel Miller Lecturer for ACAMH. Title: *Promoting attachment security through parenting interventions*

Professor Edmund Sonuga-Barke (Professor of Developmental Psychopathology, University of Southampton and Visiting Professor, Ghent) is the Editor-in-Chief of the Journal of Child Psychology and Psychiatry. Title: *Psychological therapies for ADHD: Can they be made to work?*

Professor Kathy Sylva (Professor of Educational Psychology, University of Oxford) is the Chair of ACAMH. Title: *Enabling parents to support their children's learning at home*

Discussant and Chair:

Professor Eric Taylor (Emeritus Professor, King's College London) is a past Chair of ACAMH.

In addition, an international figure will be recruited as discussant if this symposium is accepted.

Keywords: Parenting treatment evaluation.

M2-05-01

Child and Adolescent Mental Health Policy: new directions in the USA

Gordon Harper

Harvard Medical School, Department of Psychiatry, Boston, USA

The overall purpose of child and adolescent mental health policy is to reduce disparities—of all kinds—in children's development and mental health. In this part of the Symposium, recent developments in the USA in child and adolescent mental health policy will be reviewed. The overall theme is the tension between enhancing access and quality of services in mental health services often separate—if not isolated—from general healthcare with the need to contain costs and demonstrate clinical effectiveness, as in Accountable Care Organizations. The separation between health/mental health services and services provided by schools continues to be a barrier. There has been considerable progress in including new parties—advocates, parents, youths—in areas of practice and planning long the exclusive domain of professionals. This progress requires coordination of the work of those with lived experience, including experience as parents ("Nothing about us without us") and professional expertise. The presentation will review the increasing role of advocacy organizations, including the use of advocacy litigation against State governments. We will also review the implementation and evaluation of systems-of-care/wraparound programs, especially their role in enhancing access. The use of the Triple Aim (consisting of clinical outcomes, consumer experience, and annual costs-per- member), borrowed from general healthcare, and of logic models in evaluating programs will be presented. The movement to integrate behavioral/mental health into general healthcare will be reviewed and prototype services described. Public-sector intervention in the increasing use of psychoactive medication in children and adolescents will also be reviewed.

Keywords: Policy, empowerment, recovery.

M2-05-02

Strategic directions for child and adolescent mental health: implications for research and action

Chiara Servili, Michelle Hourigan

World Health Organization, Department of Mental Health
and Substance Abuse, Geneva, Switzerland

Up-to date regional level data on child and adolescent mental health policies and programmes are difficult to access. However, available information shows a great diversity in policy and legal frameworks, infrastructures and organization of services among countries in Europe, partly reflecting the diversity in level of resources and socio-economic and cultural contexts. (ref WHO euroe and CAMH proj) In May 2012 the Sixty-fifth World Health Assembly adopted resolution WHA65.4 on *the global burden of mental disorders and the need for comprehensive, coordinated response from health and social sectors at the country level*. It urged Member States to develop and strengthen comprehensive policies and strategies that address the promotion of mental health, the prevention of mental disorders, and early identification, care and recovery for children, adolescents and adults with mental disorders. Following the resolution, a comprehensive mental health action plan covering the period 2013–2020 was drafted in consultation with Member States. The Action Plan adopts a life-cycle approach and specifically addresses childhood mental disorders. It provides guidance on national-level actions for strengthened governance for mental health, provision of responsive and integrated mental health care services, mental health prevention and promotion, and strengthened information system and research. A set of indicators and targets are also being proposed. In December 2012, the United Nation General Assembly adopted Resolution A/67 on *Addressing the socioeconomic needs of individuals, families and societies affected by autism spectrum disorders and other developmental disorders*. An agenda item on 'Comprehensive and coordinated efforts for the management of autism spectrum disorders' is being proposed for discussion at the next Executive Board Meeting in May 2013. Opportunities provided by the above mentioned UN and WHA Resolutions, potential challenges for their adoption in the Region, including gaps in available evidence, will be discussed. Best practices on child and adolescent mental policy development and evaluation will also be presented.

Keywords: WHO, Strategic directions, mental health.

M2-05-03

The future shape of training for trainee doctors in England what it will mean for Child and Adolescent Mental Health Services

Sue Bailey

Royal College of Psychiatrists, London, UK

Major reform of the Health Service has taken place in England as a result of the Health and Social Care Act 2012. With this change and in the context of economic recession the new health education body HEE have been tasked with developing a new education system for all professionals working in health and social care which for all trainee doctors will be driven by the Future Shape of Training

This paper will present the opportunities and challenges this will present to the future training patterns of child and adolescent psychiatrists The emphasis will be in increased flexibility of all psychiatrists training, more shared training with linked specialties e.g. for child psychiatry, paediatrics and general practice. Within psychiatry more flexibility in training at transitions between child and adolescent and adult psychiatry, and more opportunities for dual training e.g. child and forensic, child and substance misuse implications for quality improvement for services to children and families and for recruitment into child and adolescent psychiatry will be reviewed.

Keywords: Health and Social Care Act 2012; reform; training.

M2-05-04
Child and Adolescent Mental Health Policies

Füsun Çuhadaroğlu

Hacettepe University, Ankara, Turkey, Department of Child
and Adolescent Psychiatry, Ankara, Turkey

This symposium is organized by the Policy Section of ESCAP mainly to bring up the issue of the development of the child and adolescent mental health policy programs, The United Nations Convention on the Rights of the Child (United Nations, 1989). commits countries to "ensure that all children have the right to develop physically and mentally to their full potential, to express their opinions freely, and to be protected against all forms of abuse and exploitation." The overall health and well being of children needs to be an international concern. Most of the countries in Europe don't have an officially established mental health policy program for children and adolescents. The symposium aims to discuss the crucial issues regarding child and adolescent mental health policies, including forming the frame of child and adolescent mental health programs, activating the partners, development of the policy programs, components of the programs, promotion of mental health for children, adolescents and families, financing, organization and quality of services, the effects of CAP training and clinical diagnostic systems on the policy programs, the difficulties in the implementation and sustainability of CAMH policy programs, advocacy for CAMH, and others. Another aim of the symposium is to promote the development of CAMH policy programs among countries in Europe. Dr. Chiara Servili will present the World Health Organization view of the child and adolescent mental health policies, Dr. Gordon Harper will present about the policy programs in USA and policy applications in Massachusetts Department of Mental Health. Dr. Bedirhan Üstün will discuss the role of diagnostic systems, with an emphasis on ICD-11, on the development of policies, Dr. Sue Bailey will participate on behalf of UEMS and will talk about the impact of specialty training on the policy programs and Dr. Füsun Çetin Çuhadaroğlu will present the frame of the development and experiences in the implementation of the child and adolescent mental health policy programs.

Keywords: Mental health, policy, program development, ICD-11, advocacy, promotion.

M2-05-05
Development of child and youth disorder models in the revision of the International Classification of Diseases (ICD)

Bedirhan Ustun

World Health Organization, Geneva, Switzerland

The international classification of diseases aims to make a scientific classification of "disease" (or "disorder") categories for meaningful use in health care, including clinical and research purposes. Its unit of classification is, therefore, a "disease". A disease is defined as:

- a set of dysfunctions in any of the body systems
- manifesting with a known pattern of signs, symptoms and findings (symptomatology-manifestations)
- caused by an underlying explanatory mechanism (etiology)
- a distinct pattern of development over time (course and outcome)
- a known pattern of response to interventions (treatment response)
- with linkage to underling genetic factors (genotypes, phenotypes and endophenotypes)
- with linkage to interacting environmental factors

The ICD classification forms an elaborate system of rules, logic, and terminologic interrelationships in the definition and correct coding of clinical concepts into their appropriate rubrics. However, despite the seminal role of this system, and its intrinsic complexity, no explicit logical representation of the classification, its rules, has been made publicly available. The ICD revision process aims to address this issue together with the scientific update of the disease information. Most diseases (and/or the susceptibility for diseases) start at early ages. Hence definition of disorders and diseases from the childhood and youth ages into the adulthood is an essential temporal dimension to formulate in the scientific understanding of diseases. A life course approach about the development of manifestations of underlying mechanisms over the lifetime is necessary to understand and express the natural history of diseases. ICD revision has therefore developed a content model to identify the course of disorders over time. Using temporal identifiers one can specify the onset and development of physical or mental disorders better. In this way, it is possible to trace the continued development of childhood-onset disorders into adulthood. Such a model will enable clinicians and researchers to connect the life history of children with certain disorders into adulthood, such as: what happens to children with impulse disorders when they grow up?

M2-06-01
Antibullying programmes in Southern Europe in the context of socio economic crisis

John Tsiantis

Association for the Psychosocial Health of Children and Adolescents, Research Section, Anti-bullying Prevention Program, Athens, Greece

School bullying has been recognized as a serious problem for many countries around the world. It constitutes a source of concern for all those who are affected directly or indirectly as it has severe consequences on children's physical and psychological well-being. The active participation of all the members of the school community in multifaceted programs has been shown to be the most effective in preventing bullying incidents (Olweus, 1991, 1996, 2007).

The symposium will discuss antibullying programs and interventions implemented in Southern European countries in light of the current economic crisis. Participants from two different regions of Greece, one from Portugal and one from Cyprus will try to: (1) depict bullying phenomena and their implications to mental health of children, adolescents and their families through epidemiological data, (2) present specific holistic school-based prevention approaches and (3) discuss different approaches to tackle these phenomena.

The Association for the Psycho-social Health of Children and Adolescents (A.P.H.C.A.) is one of the first agencies to become active in Greece in the promotion of psychiatric reform and the development of the community care model for the mental health of children and adolescents. Since 2005, the main focus of A.P.H.C.A. has been the development and implementation of Anti-bullying Research and Prevention Programs with the coordination of two EU DAPHNE programs and various Nationwide interventions.

Until recently in Greece, actions to tackle bullying have been fragmentary. In response to this antibullying programs, for primary and secondary education, using a holistic approach have been developed. As part of the symposium, A.P.H.C.A.'s preliminary findings of a large antibullying prevention program in primary schools (2011–2013) and a description of a pilot of an anti-bullying program in secondary schools (2012–2013), based on the innovative approach of *Mentalization*, will be presented. Furthermore, data from a Program in relation to schooling experiences of migrant students (2010–2013) under the current economic crisis in Greece conducted at the Aristoteleion University in Northern Greece will be presented.

A number of preventive programs and interventions regarding bullying in schools in Cyprus and an epidemiological study of this phenomenon are going to be presented in the panel as well.

Finally, an overview of different antibullying programs and interventions used in Portugal during the recent years of economic recession will be presented.

Keywords: School bullying, Prevention programs, Socio-economic crisis, Southern Europe.

M2-06-02

Bullying phenomenon and preventing programs in the school system in Cyprus

Anna Paradeisioti

Mental Health Services Of Cyprus, Arch. Makarios Iii Hospital, Nicosia, Cyprus

A number of preventive programs and interventions regarding bullying phenomenon in schools in Cyprus and two epidemiological studies are going to be presented in the symposium. The sample of the first study is a pancyprian sample of 1,600 students of the general population between 11–14 years old and the other sample was 190 students who visited 3 community centres of Mental Health Services for children and adolescents in different towns with various problems. We used the same questionnaires, we compared the results and we had very interesting conclusions. The aim of the interventions, was to educate primary school students about bullying and its diverse forms, to provide necessary mechanisms for reporting it and enpower them to handle it. Teachers were trained to use a specific manual which was created for the needs of the intervention programs and they implemented the intervention program in their classroom in ten sessions, one every week. During the implementation, they were supervised by school psychologists. Various questionnaires were used to measure the effectiveness of intervention programs, pre and post, the intensity and the quality of bullying phenomenon and the mental health status of the students. Findings suggest that bullying is a reality in Cyprus schools, and causes a various mental health problems not only to the victims but also to the bullies and bystanders. Bullying also causes to the victims Post Traumatic Stress Disorder symptomatology and influences their overall functionality. Socioeconomical factors according Bullying issues are also being studied. The first epidemiological study and the preventive programs were developed in the European context of Daphne II and III coordinated by Greece with Coordinating Organization the Association for Psychosocial Health of Children and Adolescent. Cyprus, Germany, Lithouania and Poland also participated in these projects.

Keywords: Bullying, intervention programs, mental health PTSD.

M2-06-03

Children's and adolescents' views regarding their participation in school: comparative analysis of native and migrant students

Ioanna Bibou-Nakou[1]*, Susana Padeliadu*[2]*, Vasilis Pavlopoulos*[3]

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The objective in this study, which is part of a broader program aiming at the education of migrant students in Greek schools, was to gather information related to students' lives and particular areas in which their rights might be underplayed. A large number (1,850) of students aged 5–15 years were accessed in their schools (from 4 different geographical areas of Greece) and were asked to talk about what they considered unfair about school, about living in a family, about their area/community and about the play and leisure activities in their neighborhood. All data was collected using a variety of qualitative techniques (individual drawing, writing stories [1]) and content analysis allowed for the key issues to be explored by each of the four themes. The present paper focuses on the theme of school and students' views regarding their rights in relation to their schooling experiences. The main priorities raised by students in relation to their school concerned poor state of the building and lack of resources/facilities (47.8 % of the students), academic pressures exerted on them and negative teachers' behavior, (18.7 %), and curriculum and teaching methods (17.5 %). Negative peer relationships and the issue of bullying also emerged as a priority concern for 25.1 % of the participating students. Based on the comparative analyses of the data it was revealed that significant differences arise mostly in terms of age and the specific city students lived in, while migrant students appear to have different perceptions only in regard to the relationship with their teachers and the free time they enjoy. Results are discussed in terms of the appropriate interventions required to improve the everyday reality of students in schools.

Keywords: Children's and adolescents' rights; migration; bullying experiences.

M2-06-04

Antibullying programs for primary and secondary education in Greece

Alkis Constantine Tsiantis, Eva Manolia Syngelaki, Ion N. Beratis, Charisios Asimopoulos, Elina Dimitropoulou, John Tsiantis

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Bullying or victimization is a form of aggressive behaviour usually occurring in the school environment. An increasing amount of research shows the short-term and long-term effects of the phenomenon, often resulting in severe difficulties in terms of children's physical and psychological well-being.

The extent of the phenomenon differentiates widely, depending on the country of the study. Indicatively, in the area of Europe, frequency rates of school bullying vary from 6 % in Sweden to 40 % in Lithuania. Specifically in Greece, according to the latest studies, the percentage of students who report victimization ranges from 8 to 15 % (Kokkevi et al., 2010; Sapouna, 2008). These findings show the imperative need for using holistic prevention and intervention anti-bullying programs. As such, A.P.H.C.A.'s programs for primary and secondary schools will be presented.

Specifically, A.P.H.C.A.'s Research and Intervention Program (2011–2013) with the title: "STOP Bullying in Primary Schools' will be presented. The program, based on school class activities, has been designed for implementation by teachers in the three upper grades of primary school. The program has been based on two pilot interventions in Greece, undertaken by the A.P.H.C.A. in Athens. According to findings of the pilot interventions in primary schools in Greece, 7.9 % students were being bullied and 5.6 % bullied (Giannakopoulou et al., 2010). "STOP Bullying in Primary Schools' uses a whole school approach, by involving students, parents, and teachers. In order to evaluate its implementation, questionnaires have been administered to both students and teachers. Preliminary findings show an increasing trend in percentages in the occurrence of bullying. Findings will be discussed in relation to the potential health effects which could emerge in association with the current socio-economic crisis.

Furthermore, amore recent innovative anti-bullying pilot project for Secondary schools in Greece (2012–2014) will be described. Using a socio-psychodynamic approach to community health, the theoretical framework for this programme is based on Mentalization Theory (Bateman and Fonagy, 2012) and aims to integrate and expand metallization concepts in order to address the complex phenomenon of school bullying.

Keywords: Antibullying programs, primary education, secondary education.

M2-06-05

Bullying in Portugal: looking through the financial fog

Ana Moscoso

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Despite being an ancestral phenomena, shaped by every culture, bullying can be defined as the ongoing victimization of a student by another student or group of people (Gaspar de Matos, et al. 2002).[1] More recently, Cyberbullying, an emerging problem in which people use new communication technologies, such as social media and texting, to harass and cause emotional harm to their victims, is increasing everywhere. Unfortunately, in this sense, Portugal is no exception and accordingly with the HBSC (Health Behaviour in School-Aged Children) study promoted by OMS, 20,6 % of 6th, 8th and 10th grade students were involved in bullying issues, either being aggressors (6,3 %), victims (9,4 %) or both (4,9 %). Earlier tendencies have shown decreases in this kind of phenomena throughout the scholar years but recent figures show the opposite. Several risk factors have been pointed out, such as impaired social conditions directly related to the family (poor neighborhoods, unemployment in the family) and to the school (many students, poor vigilance, impaired physical conditions, schools where there is poor integration of different ethnicities). In recent years, the financial crisis has hit Europe, with great impact and harsh austerity measures in Portugal. That led to less income to families and public structures and increasing figures of unemployment. These social stressors, both inside and outside the families make its impact in the general mental health and hence, in children and they're relationship with peers. It is the aim of this presentation to show national results and trends in bullying behaviour in Portugal and discuss the impact of the financial crisis in violence between children.

[1] Gaspar de Matos, Margarida et al. (2002), *Bullying—A Provocação/Vitimação entre Pares no Contexto Escolar Português. Análise Psicológica*, 4 (XX): 571–585 (in Portuguese).

Keywords: Bullying, Portugal, Financial crisis.

M2-07-01

Diagnosis and clinical symptom description in offspring of patients with bipolar disorder

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Offspring of Bipolar Disorder patients (HRb) are considered at high risk of developing the illness. Previous literature has shown that the prodromal phase of bipolar disorder may interfere significantly in patients' normal development (1–4). Therefore, it is important to identify clinical indicators present before the onset of the disorder in high risk populations, in order to aid early diagnosis and intervention. Prior studies have identified a number of symptom domains, including impaired mood regulation and behavioral desinhibition, as markers of risk of the disorder (5). In keeping with the hypothesis that psychotic and/or affective symptoms may present in high risk populations at a subthreshold level, we have undertaken a follow-up study comparing clinical, neurocognitive, genetic and neuroimaging features between HRb, and community controls (CC). In this presentation we will describe the clinical data of HRb at baseline compared to controls.

The sample included 90 offspring of bipolar patients (12.5 ± 3.1 years, 55.6 % males) and 107 offspring of controls (11.7 ± 3.2 years, 44.9 % males) matched by sex, age and years of education. HRb displayed a higher number of psychiatric disorders (K-SADS-PL) at baseline (24.4 %), and prior to enrolling in the study (37.1 %), in comparison to community controls (11.2 and 19.6 % respectively; $p = 0.014$). The rates of psychopathology at baseline were as follows: attention deficit/hyperactivity disorder (ADHD) (12.2 % HRb; 4.7 % CC); anxiety disorders (5.5 % HRb; 1.9 % CC) and affective disorders (4.4 % HRb; 0.9 % CC). Moreover, HRb showed lower scores compared to CC in the Premorbid Adjustment Scale (PAS) ($p < 0.005$) and higher scores in Scale of Prodromal Symptoms within all the subscales ($p = 0.005$). Although no significant differences were found between the two groups in the Young Mania Rating Scale, significantly higher scores were obtained in the Hamilton Depression Rating Scale ($p = 0.002$) in offspring of HRb patients relative to the control group.

This study demonstrates significantly higher rates of psychiatric disorders in offspring of HRb compared to controls, as well as poorer early adjustment and worse overall functioning. Moreover, depressive symptoms in the HRb children were significantly higher in contrast to the control group. These results highlight the importance of identifying subthreshold clinical symptoms in high risk populations.

References:
(1) Chang et al., 2000; 2003
(2) Seller et al., 1998
(3) Finding et al., 2005
(4) Hirshfeld-Becker et al., 2006
(5) McGorry ySingh, 1995
Keywords: Bipolar disorder, Offspring, Risk factors.

M2-07-02

Neuroanatomical characteristics of child and adolescent offspring of bipolar patients

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Background: Neuroimaging studies in unaffected adult relatives of bipolar patients have provided evidence of brain structural abnormalities in the medial temporal, prefrontal and insular cortex (Hajek 2005), indexing potential anatomical substrates for disease vulnerability. However, neuroanatomical studies in child and adolescent offspring of bipolar patients, characterised by small sample sizes, have so far been inconclusive (Singh 2008, Ladoucer 2008).
Aim: to examine whole brain voxel-based morphometric grey matter differences in a large sample of young bipolar offspring relative to healthy controls, so as to identify structural abnormalities characteristic of this at-risk population.
Methods: 93 children and adolescents underwent scanning. 47 participants had a parent with bipolar disorder (HRb; age: mean = 12.6; SD = 3.2; 53 % males), and were matched by age and gender with 46 healthy controls (HC) (age: mean = 12.5, SD = 3.4; 43 % males). All participants underwent a comprehensive clinical assessment. High-resolution magnetic resonance structural images were acquired from a 3T Siemens scanner. Voxel-based morphometric analyses were performed using SPM8.
Results: 23 (48.9 %) of HRb met criteria for a lifetime axis I disorder, including externalizing (n = 9), anxiety (n = 5) and affective disorders (n = 9). No differences were found between groups in terms of whole brain grey matter, white matter or total intracranial volumes. Relative to HC, HRb (n = 47) demonstrated decreased grey matter volume in the left lateral temporal pole (peak coordinates: [−42, 10, −34] $p_{\text{FWE-corr}} = 0.051$; t = 4.69). These differences became more apparent when analysing the subgroup of HRb with lifetime psychopathology (n = 23) vs. HC: this analysis revealed a relative reduction in grey matter volumes in the temporal cortex bilaterally; the left cluster ([-46,12,-36] $p_{\text{FWE-corr}} = .060$; t = 4.74) encompassed the fusiform gyrus and medial temporal cortex, while the right cluster ([46,-20,-24] $p_{\text{FWE-corr}} = .053$, t = 4.55) included fusiform gyrus, inferior temporal lobe and hippocampus. Analysis of the subgroup of HRb without lifetime psychopathology revealed no differences relative to HC.
Discussion: to our knowledge this is the largest sample of structural neuroimaging data collected for young HRb to date; it provides evidence in support of temporal lobe abnormalities in youth at risk for bipolar disorder, mirroring findings from unaffected adult relatives and clinical samples. These alterations were more extensive in offspring presenting psychopathology indexing increased risk for the disease.
Keywords: Neuroimaging, high risk, bipolar disorder, child and adolescent.

M2-07-03

Neuropsychological characteristics of child and adolescent offspring of bipolar disorder patients

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Introduction: Bipolar disorder (BD) is a devastating psychiatric disorder with a highly heritable component (McGuffin et al., 2003). Studies in high risk samples have shown impairments in a number of neuropsychological domains, including performance IQ, attention, and executive functions (Meyer et al., 2004; McDonough-Ryan et al. 2002), some of which have been proposed as endophenotypes of the disease. The aim of this presentation is to describe the neuropsychological characteristics of a sample of child and adolescent offspring of adult BD (HRb) patients relative to community controls (CC).
Methods: a) Subjects: 90 child and adolescent offspring of patients with a diagnosis of bipolar disorder (HRb; DSM-IV criteria) and 107 community controls, with no history of psychosis among first and second degree relatives (CC).
b) Neuropsychological assessment included the following cognitive domains: Intelligence (WISC-IV), working memory (Working Memory index of WISC-IV), logical memory (Stories subtest of TOMAL, immediate and delayed recall), verbal learning (words list subtests of TOMAL, immediate and delayed recall), visual memory (WMS-III), executive functioning (WCST and Stroop), and sustained attention (CPT).
Results: Relative to CC, HRb showed lower scores on the Perceptual Reasoning Index ($p = 0.047$) and the Processing Speed Index ($p < 0.001$) of WISC-IV. In addition, HRb subjects exhibited poorer sustained attention ($p = 0.048$). No statistically significant differences were observed between groups in any of the remaining domains. Taking into account the high rate of psychopathology observed in the HRb group, the statistical analysis was undertaken separately in HRb according to the presence of lifetime psychopathology (HRbP). A multivariate analysis of variance was performed, including gender as covariate. This revealed a significantly lower processing speed index (WISC-IV; $p < 0.001$) and a trend-level lower perceptual reasoning index (WISC-IV; $p = 0.064$) in HRbP relative to CC. Significant differences were also detected in the continuos performance task-II ($p = 0.027$) between HRbP and CC. HRb without a lifetime history of psychopathology only showed significant differences relative to CC in the processing speed index ($p = 0.015$).
Conclusions: Relative to CC, HRb demonstrated significant difficulties in perceptual reasoning, processing speed and sustained

attention. The processing speed index was impaired in HRb samples regardless of the presence of psychopathology.

Keywords: Neuropsychology, high risk, bipolar disorder, child and adolescent.

M2-08-01

Over the counter relapse: detecting synthetic cannabinoids in adolescent treatment and office practice

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Objective: The main objective of this presentation is to consider the impact of synthetic cannabinoid use and related disorders on clinical practices, including outpatient adolescent drug and psychiatric treatment. This will be done by (1) reviewing the pharmacology of this complex group of mind altering substances; (2) considering issues that make availability of these drugs particularly dangerous; (3) describe clinical presentation of synthetic cannabinoid use and abuse and their treatment.

Background: In 2011, 11.7 % of high school seniors in the U.S. had used a synthetic cannabinoid in the past year. Synthetic cannabinoids are pure agonists at the CB1 receptor; as a result they are typically 5–45 times more potent than THC. Despite legal efforts to ban these substances, these and other cannabinoids remain readily available in many states in a variety of preparations, at times with multiple cannabinoids and other organic compounds. In addition to concerns regarding undetectable use in drug treatment, psychiatric practice and probation, these substances may be even more dangerous than marijuana in terms of serious medical and psychiatric side effects and addictive liability.

Methods: The pharmacology of synthetic cannabinoids will be reviewed, considering particularly dangers and toxicities unique to or exaggerated in users of these pure cannabinoid agonists. The methods of manufacturers to maintain their legality in the face of efforts to control these substances will be detailed. Efforts to ban these substances at the local and state levels will be noted. The role of cannabinoid use in the treatment of cannabis use disorders will be considered via clinical examples in psychiatric practice.

Results: Participants will develop a basic understanding of the pharmacology of the synthetic cannabinoids, their clinical presentation and related issues including toxicity, legality and relevance to treatment. They will also be in a position to understand the basic legislative issues to discuss with their legislators at home, should they choose to advocate for better protections for these youth. The special issues synthetic cannabinoids present will be discussed from a clinical perspective, including: wide availability, misperception of potency, toxicity, and inability to detect by traditional urine toxicology. Participants will consider the implications for psychiatric and substance abuse treatment as well as advocacy based upon current evidence and clinical experience.

Conclusions: Synthetic cannabinoids are widely available despite some recent efforts to control their availability. Some youth may underestimate their dangerousness since they are "legal" and available in their local stores and online. Some youth turn to these drugs as a "safe" alternative to marijuana, but find themselves with more serious adverse psychiatric and medical effects, and a greater liability of addiction.

Keywords: Substance Abuse, Adolescents.

M2-08-02

The New Great Mimicker? Marijuana and Synthetic Cannabinoids from an Inpatient Psychiatric Hospital Perspective

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and Adolescent Psychiatry, Dallas, USA

Objectives: To (1) review the pharmacology of this complex group of mind altering substances; (2) consider issues that make the availability of synthetic cannabis particularly dangerous; (3) describe clinical presentations of synthetic cannabinoid use and abuse and their treatment; consider issues that need to be addressed.

Methods: Pharmacology of the literally dozens of synthetic cannabinoids is presented and data on the morbidity and mortality of these substances is reviewed and then considered in the context of cases which have presented with synthetic cannabinoid use disorders.

Results: Participants develop a basic understanding of the pharmacology of these substances, their clinical presentation and related issues. The special issues synthetic cannabinoids present from wide availability, misperception of potency, to lack of detection in urine toxicology screens are discussed and the current state of legality is reviewed.

Conclusions: Synthetic cannabinoids are widely available, their potency underestimated, benefits exaggerated, and dangers denied. Parents and treatment providers unaware of the use of these substances may fail to protect youth from serious adverse effects and worsening addiction. Awareness of the clinical presentation of the use and abuse of these substances and action by psychiatry are necessary to begin to protect youth from these dangerous drugs.

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Keywords: Consultation-liaison, Prevention, Substance abuse.

M2-08-03

A San Francisco clinical perspective: pitfalls and psychiatric dangers where marijuana use is the norm

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Objectives: To (1) describe representative cases of marijuana use presenting in a San Francisco, California (USA) office-based adolescent psychiatry practice where medical marijuana is legal and being abused in the community, (2) review the consequences of medical marijuana availability on youth at risk for psychiatric disorders, (3) consider the role of cannabis in psychiatric disorders and symptoms.

Methods: Typical and representative adolescent cases from an outpatient psychiatric office practice are presented to illustrate the role of medical marijuana on clinical practice where the permissive

community culture and laws allow easy access to medical marijuana. Where applicable evidence from the literature will be presented to augment and support the case findings. Topics discussed include: (1) marijuana's negative impact on the developing adolescent brain, (2) the role of heavy marijuana use in promoting the future development of a substance disorder in adolescents, and (3) the easy and unlimited access teenagers have to medical marijuana in a wide variety of forms in a community where it is legal. Marijuana's withdrawal phenomena are described and how they may complicate the psychiatric diagnostic picture and treatment. The myths of medical marijuana held by teenagers and their parents in this community are also discussed.
Results: Participants receive a preview of the effects of legalized medical marijuana in a community where adequate education on and monitoring of medical marijuana are lacking. Legalized medical marijuana presents numerous challenges to clinicians and the public health. Our profession may need to inform other health and mental health clinicians, policy makers, parents, teenagers, and educators in the emerging evidence of medical marijuana, especially in communities where medical marijuana is legal or being considered for legalization.
Conclusion: Medical marijuana is easily and frequently diverted to substance abusing teenagers and this availability presents numerous challenges to clinicians and the public health. Being informed of these related issues and preventative measures is critical for avoiding the problems that have been generated by legalization of an increasingly dangerous class of drugs.
Keywords: Adolescence/Adolescent Psychiatry, Prevention and Substance Use.

M2-08-04

Marijuana and Synthetic Marijuana: clinical and public health perspectives

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Objective: To (1) review the changing landscape of marijuana and synthetic cannabis use and abuse in the United States.; (2) describe clinical experience from differing clinical practices and locations with and without legalized medical marijuana; (3) inform clinicians of the danger to adolescent development and knowledge to effectively address the issues in practice and public discourse.
Background: Cannabis use as a major public health problem with rising daily use in 8th graders, 10th graders and 12th graders over the past 5 years is documented while perceived harm has fallen. Cannabis' increasing rates of use by young and older adolescents, potency, adulteration, synthetic forms, and adverse effects make it a public health concern.
Methods: The clinical experience and evidence base detailing changes seen with cannabis use in youth are presented from child psychiatrist perspectives of office and hospital (psychiatric and pediatric) practices where medical marijuana is legalized or not. Illustrative cases from these varied settings are presented.
Results: Participants gain understanding of the clinical presentation of cannabinoid use and abuse across clinical settings, the common misperceptions related to cannabis and synthetic cannabinoid use; their actual risk; the nature of risk to the public health, and the need for greater sharing of accurate evidence-based information with professionals, families, policy makers, and the general public.
Conclusions: Given the changing nature of cannabinoid use, it is critical that accurate information be available to youth, their parents, and health care providers.
Keywords: Consultation-liaison, Prevention, Substance abuse.

M2-08-05

The Twin Track: Alcohol and mental health in adolescents

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Background: Research in Europe and the US has found that alcohol use is beginning in early adolescence and polysubstanceuse is evident (Newes-Adeyiet al 2005; WHO 2007). Alcohol is a particular risk in adolescence (Strandheimet a., 2009).
Aims: There has been a steady and significant decline in age of drinking onset in Irish young people, which may contribute to poor mental health. This research aimed to look at patterns of drinking behaviour in second level students across the school cycle and it's relationship to mental health.
Method: A cross-sectional study was conducted with 6,085 adolescents in 72 randomly selected post-primary schools in Ireland. Participants ranged in age from 12-19 years ($M = 14.94$, $SD = 1.63$) and 51.0% were female. Participants completed the My World Survey (MWS), which contains psychometrically reliable instruments including depression, stress, anxiety and self-esteem. Alcohol behaviour was measured using the Alcohol Use Disorders Identification Test (AUDIT, WHO).
Results: A significant year effect was observed for the AUDIT $F(5,5807) = 242.37$, $p < 001$; with a significant linear trend from 1st to 6th year. 6th year students were observed to score, on average ($M = 8.55$), outside the normal range. No significant gender effect was observed. Alcohol consumption on a weekly basis, high frequency of binging and high volume of alcohol intake was significantly associated with 5th and 6th years for both males and females. Adolescents, both in the Junior Cycle (10%) and Senior Cycle (35%) in school, who are classified as problem drinkers, were at an increased risk for severe depression, anxiety, stress, avoidance coping and low self-esteem.
Conclusions: Students in 5th and 6th year are likely to engage in problem drinking behaviour and this is linked to an increased likelihood of mental health difficulties.
Keywords: Alcohol, depression, self-esteem, avoidant coping, adolescents.

M3-01

Can we improve parenting on a national scale so that children do better?

Stephen Scott

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This talk will discuss the transition from good individual clinical practice to nationwide dissemination of effective parenting support, with a particular focus on managing conduct problems and antisocial behaviour. Issues include (1) the upfront cost of programmes versus the long-term cost of not treating cases (2) should all children be targeted, or those with worse problems (3) persuading local commissioners and training practitioners in approaches that work (4) developing practitioner skills (5) encouraging high attendance by parents (6) planning what to do with treatment failures. Examples will be given from three initiatives in England that I have been involved in. Firstly the National Academy for Parenting Practitioners, which trained 4000 staff in evidence-based approaches; secondly the children and Young People's Increasing Access to Psychological Therapies (CY-IAPT) initiative, where currently half of the effort is in parent training for conduct problems; and thirdly, the Department for education is universal classes and advice network for parenting of the under fives.

M3-02

Computerised cognitive behaviour therapy (cCBT) for children and young people

Paul Stallard

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Emotional disorders of depression and anxiety are common in children and adolescents (Costello et al. 2003, Ford, Goodman and Meltzer 2003). If left untreated, emotional disorders persist and increase the risk of subsequent anxiety, depression, illicit drug dependence and educational underachievement in young adulthood (Kim-Cohen et al. 2003; Woodward and Ferguson 2001). Evidence from a growing number of well conducted randomised controlled trials have demonstrated that Cognitive Behaviour Therapy (CBT) can be an effective intervention for such problems (Klein, Jacobs and Reinecke, 2007; Cartwright-Hatton et al., 2004; Ishikawa et al., 2007). Whilst CBT has now accumulated the strongest evidence base of all the psychotherapies CBT is not widely available within specialist child and adolescent mental health services. In a UK survey of clinical child mental health services only 21.4 % of the 540 respondents used CBT as their dominant therapeutic approach; 21.0 % had undertaken specific post-qualification training, and 28.6 % rated their expertise in CBT as fairly good or good (Stallard et al., 2007). The limited availability of evidence based interventions such as CBT for children has led to the development in the UK of a national programme to train CBT skills although whether this will provide sufficient trained CBT therapist is unknown. Alternative ways to increase the accessibility and availability of evidence based interventions has led to interest in the use of computerised therapy. Adapting treatment programmes for use on computers has many potential advantages with results from computerised Cognitive Behaviour Therapy (cCBT) programmes with adults demonstrating positive results (Andrews et al. 2010; Andersson and Cuijpers 2009). The use of technology may be particularly attractive and engaging for children although comparatively few cCBT programmes have been developed specifically for this age group (Richardson et al. 2010; Calear and Christensen 2010). This presentation will provide an overview of cCBT for the treatment of emotional disorders for children. Screen shots from some of the programmes that have been developed will be shown, the attitudes of children and parents towards cCBT will be described and the results of randomised trials of cCBT summarised.

Keywords: Cognitive behaviour therapy, CBT, computerised interventions.

M3-03

Children of mentally ill parents: should something be done? Research and experience on prevention: Why? What? When?

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Children of mentally ill parents are at heightened risk for adjustment problems as well as psychiatric disorders. Parental psychiatric disorders present also a risk for intergenerational cycle of social exclusion. There is a general agreement in the academia about the need for prevention, and several prevention programs have been developed and found effective. However, across Europe, this child population, estimated to be about 40 % of all children in Norway, does not receive the prevention they need. Psychiatric services are in the front line to initiate prevention, but why does it not happen? The lecture will give an overview of the research about child risks in these families. Prevention programs will be analyzed in terms of effectiveness and mechanisms of impact. The lecturer's experience of over 10 years of studying and implementing a countrywide prevention program in psychiatric and community based services in Finland will be discussed: Finnish psychiatric services are taking up responsibility for the patients' children. A randomized study was carried out to ascertain the effectiveness of the interventions in real-world conditions. The study sample included 119 families with a parent treated for depression and their children. The interventions turned out to be feasible, well received by families and practitioners and safe with no increase in worries and sense of stigma. They were also effective in reducing children's emotional and anxiety problems over 18 months. The talk will also draw on the lecturer's experience in contributing to such preventive efforts in several countries across Europe. When the situation of children of mentally ill parents is put on the table, it elicits immediately questions in each society concerning stigma attached to mental illness and being a child with a mentally ill parent, the legal and civil rights of these parents and children, and the living conditions of such families. All these have to be taken into consideration when developing psychiatric prevention for these families and children.

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Keywords: Parental mental illness, prevention, child mental health, psychiatric services.

M3-04-01

Gene: childhood life adversity interactions and their impact on brain structure and function

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Genes and early life adversity (ELA) interactively increase the risk of developing Major Depressive Disorder (MDD). MDD is a complex disorder and recent research suggests that muliple genetic and environmental factors seem to underly MDD criteria. Genetic factors have been demonstrated to impact on brain structure and function.

Moreover, we could show that early life adversity affects brain structure independently and interactively with the risk polymorphisms in the promotor region of the serotonin transporter gene. Interestingly, a recent genome-wide association study suggests that the minor T-allele of single nucleotide polymorphisms in the bicaudal C homologue 1 gene (*BICC1*) has a protective role against MDD. Aim of the study was to investigate whether the minor T-allele of *BICC1* is protective against hippocampal structural brain changes, whether it is associated with increased functional brain activity in the emotion regulation system and how ELA would modify this association. Forty-four patients with MDD and 44 healthy controls were investigated using structural magnetic resonance imaging (MRI) and functional MRI with an emotion inhibition task. Analysis of a single nucleotide polymorphism in the *BICC1-1* (rs999845) gene was performed. Right hippocampal bodies of patients and controls without history of ELA and who carry the protective T-allele of BICC1 were significantly larger compared to those participant shomozygous for the major C-allele of *BICC1*. However, MDD patients with ELA, who carry the T-allele, had smaller hippocampal head volumes compared to MDD patients without ELA. FMRI showed that patients and controls carrying the protective T-allele of *BICC1* activate the emotion regulation system significantly more compared to those participants homozygous for the major C-allele ($p < 0.05$*, family wise error corrected*)*. These results are suggestive that the minor T-allele of* >*BICC1* has a protective role against MDD and its known structural and functional brain changes. However, this protective effect seems to be lost in the case of co-occurrence of ELA.

Keywords: Major depression; hippocampus; BICC1; polymorphism; plasticity, early life adversity.

M3-04-02

The ability to recognize emotional faces and its relation to response inhibition and decision making in adolescents with bipolar disorder

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Background: Bipolar disorder (BD) is associated with abnormalities in emotion regulation. It can be hypothesized that this impairment is related to emotion recognition which is the early stage of emotional competence. Moreover, it has been found that youth with bipolar disorder have some degree of deficit in response inhibition and decision making which are related to emotional competence. We conducted this study to evaluate firstly the ability of youth with BD in emotional face recognition and secondly its relation to response inhibition and decision making.

Method: Thirty adolescents diagnosed with BD based on clinical interview and the Kiddie- schedule for Affective Disorder and Schizophrenia (K_SADS) aged between 12 and 18 were compared with 30 normal developing youth matched on the age and gender. They were evaluated using a computerized facial emotion recognition task, the Stop Signal Task (SST), and Cambridge Gambling Task (CGT). The participants needed to recognize happy, sad and angry faces as well as the neutral ones. The MANOVA was used to analyze the differences between the two groups in terms of different emotions. The two groups were compared in terms of SST and CGT variables using the T test. The Pearson correlation was used to find out the relation between emotion recognition and response inhibition and decision making tasks.

Results: Patients with BD showed a significant deficit in detecting different emotions ($p < 0.05$). Their response times to recognize faces were significantly longer compared to normal individuals ($p < 0.05$). Individuals with bipolar disorder were also significantly poorer on response inhibition and decision making variables ($p < .05$). The accuracy of recognizing emotions and the time taken to detect them were significantly correlated with some variables of SST and CGT ($p < 0.05$).

Conclusion: This study suggests inaccuracy and slowness on recognizing emotions in adolescents with bipolar disorder which were correlated with their impairments in inhibiting responses and making decisions.

Keywords: Bipolar disorder, facial emotion recognition, adolescents, response inhibition, decision making.

M3-05

Law and psychology in a children's court

Patricia Brown

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The importance of gaining clinical advice for the Children's Court led 70 years ago in Victoria, Australia, to the establishment of the Children's Court Clinic. This clinic, in the 2000s sees a predominance of child protection matters amounting to seventy five percent of a referral number of 1,000 children and families statewide. (It also sees serious criminal cases involving adolescents, where arson, serious assaults, sexual abuse, major thefts and so forth have been committed and charges brought by police. Crimes family violence cases may also be referred). The Court Clinic has experienced and well credentialed psychiatrists, clinical psychologists, neuro-psychologists and forensic psychologists submitting assessments and recommendations to the court, solely at the request of magistrates. Often the clinicians are required to give evidence under cross-examination by a number of barristers as an adversarial system prevails. The advice of the Children's Court Clinic is expected to be independent of the parties to proceedings, including the child welfare, thus providing balance to the system. Clinicians in this rare environment must, however, not only give an advice that is independent, but one that is informed by clinical research, by the state's law related to children, by past judgments by magistrates that then inform that law, and with knowledge of the informal practice rules of the child welfare concerning, for example, access to parents, for those children removed from home. Access to parents is in fact one of the fraught issues often referred to the Children's Court Clinic: With the closure of the small-child reception facilities in Victoria and a resultant reliance on foster-care, there was an immediate change to the child's access to the parent, irrespective of their relationship, once the child was removed from home. Further, informal rules of the child welfare, while varying with the particular case, generally suggest a considerable reduction of access when permanent care is planned. Indeed, with the earlier order of Guardianship, which leaves access solely in the hands of the child welfare, the magistrate or appeal judge having no power to order access, contact may be reduced to four times a year. Sound assessment and clinical advice concerning the best interests of the child is extremely important in such a scenario. How the court can facilitate access, where found appropriate, has been articulated in various judgments.

Keywords: Law, Psychology, Children's Court.

M3-06

Psychotic symptoms in childhood and adolescence

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During the past decade, there has been a growing interest in psychotic-like symptoms among children and adolescents. For years, such symptoms were not asked about by child and adolescent mental health professionals as it was considered that these experiences were meaningless in the absence of a psychotic diagnosis. However, there is now compelling evidence from population-based cohorts that self-reported psychotic symptoms in early adolescence are associated with a higher risk of psychotic illness in adulthood. It seems that the psychotic process may begin much earlier than previously supposed. In a sense, this period could be termed the 'pre-prodrome'. This state of the art lecture will highlight this emerging area of research interest and address the issue of how to identify and characterize adolescents experiencing these psychotic-like symptoms. The study of psychotic symptoms in childhood and adolescence represents a convergence between the developmental and the dimensional approaches to studying psychosis. At the intersection of these risks may lie those individuals most at risk and therefore most informative about etiological pathways and trajectories not just for schizophrenia but also for other psychiatric disorders.

This research was funded by the Health Research Board, Ireland.

M4-01-01

Perinatal mental health issues

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Survival of very low birth weight (VLBW) infants has increased dramatically over the past decade. International Research has indicated that these children are at an increased risk of experiencing deficits in the domains of: cognition; academic attainment; mental and physical health status. These children, by virtue of their prematurity, medical complications and often traumatic arrival, are also at risk of attachment difficulties. Secure attachment allows the child form a 'secure base' from which to explore, learn and relate to others and is hugely important for long term wellbeing and emotional resilience. Clinical and neurobiological evidence indicates the importance of early attachments and potential negative trajectories when disrupted. Premature birth, or past traumatic experience in pregnancy may be at risk of interfering with maternal attunement to the infant's needs either by virtue of lack of preparation, emotional distress or mental health disorders in the mother, meditated either through biological factors such as the HPA axis, or suboptimal parenting. Medical factors in the child or environmental factors linked to the Neonatal intensive care may create suboptimal environments which limit close physical contact with mother-baby, risking the establishment of this mutually reinforcing process. This symposium will present the complex effects on attachment loss in a previous pregnancy may have on attachment in subsequent pregnancies. The effects of prenatal stress on HPA axis activity in mothers with depression will be examined and the impact this has on the infant. The longer term effects of prematurity and LBW from a longitudinal cohort study of 127 surviving children born between 1995–1997 will be presented. Finally early intervention aimed to support attachment and social-emotional development of preterm infants will be discussed. The challenges of designing and delivering an early relationship focussed intervention will be presented.

M4-01-02

Cognitive, psycho-social, and medical outcomes of very low birth weight infants at age 10–14 years in Ireland

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Overview: Survival of very low-birth (VLBW) infants has increased dramatically over the past decade with significant increased risk of negative cognitive, academic and mental health outcomes. Little research has been conducted to verify this trend in Irish VLBW infants. The objectives of the Irish Low Birth Weight Study are to assess the cognitive, emotional, and medical outcomes in a cohort of very low birth-weight children (<1,500 g) in Dublin, and to compare the outcomes of these children with normal birth weight (NBW, >2,500 g) peers.

Method: All surviving VLBW infants born in a Dublin maternity hospital, between 1995 and 1997 were contacted to participate in the study along with a matched control group. 63 VLBW (mean age 11.6) and 50 NBW participated. All participants completed a cognitive assessment (WISC IV, WIAT II), medical examination and the Developmental and Well-Being Assessment (DAWBA). Parents and teachers of each participant completed a study specific questionnaire, the Strengths and Difficulties Questionnaire (SDQ) and the DAWBA.

Results: VLBW subjects had significantly lower full scale IQs (FSIQ) and increased hyperactivity and emotional symptoms and peer relationship difficulties on the SDQ than NBW peers. Separate hierarchical regression analyses for FSIQ, and for parent SDQ hyperactivity, emotions and peer problems subscale scores revealed:

1. Both age and SES accounted for a significant amount of the variance in IQ ($R^2 0.31$, $p < 0.001$) with LBW accounting for an additional 7 % of the variance in FSIQ ($R^2 0.07$, $p < 0.01$).
2. Both age and SES accounted for a significant amount of the variance in parent-reported SDQ hyperactivity score ($R^2 0.11$, $p < 0.01$) with LBW accounting for only an additional 3 % of the variance in hyperactivity score ($R^2 0.03$, ns).
3. Age and SES accounted for a significant amount of the variance in parent-reported SDQ emotional symptoms score ($R^2 0.11$, $p < 0.01$) with VLBW accounting for only an additional 2 % of the variance.
4. Both age and SES accounted for some of the variance in parent-reported SDQ peer problems score (R^2 0.09, $p < 0.05$); LBW accounted for an additional 13 % of the variance in SDQ (R^2 0.13, $p < 0.001$).

Gender did not contribute substantially to the variance of any of the dependent variables.

Conclusion: When possible confounders such as SES, age and gender were included, VLBW continued to be associated with lower FSIQ and increased peer problems scores. Many of the difficulties experienced by VLBW adolescents are subtle; more research is needed to investigate the resilience of VLBW survivors.

Keywords: Low birth weight, mental health difficulties.

M4-01-03
Preterm birth, attachment and mental health

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Forming a secure attachment may be viewed as the major developmental task of infancy. Early parent-infant social interactions are the building blocks of the attachment relationship. Disturbances of early interactions may be associated with later attachment insecurity.

Preterm birth is a global public health concern and a leading cause of neonatal morbidity and mortality. With advances in obstetrics and neonatology the most extremely preterm infants are now surviving, however these infants are at risk of a range of neurodevelopmental, cognitive and mental health difficulties. Preterm infants may also be at risk for insecure attachment. The developing relationship between infant and parent may be affected by the infant's prematurity and associated developmental needs, but also by the parent's emotional state and their internal representations of their infant. Increasing evidence suggests that psychological wellbeing of the infant and parent in the event of preterm birth needs to be integrated into the overall care of the family in order to promote the infant-parent relationship, attachment and mental health.

This presentation will review current understanding of preterm infant psychological development, focusing on infant-parent attachment and social-emotional development. The emotional experiences of parents will be discussed. A particular focus will be on the parental attachment representations of the child, maternal sensitivity and disorganised attachment in relation to preterm birth. The current evidence for early intervention to support attachment and social-emotional development of preterm infants will be discussed. The challenges of designing and delivering an early relationship focussed intervention in the Neonatal Intensive Care Unit will be presented.

Keywords: Preterm Birth, Attachment, representation.

M4-01-04
Perinatal depression

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About 50 % of what was thought to be postpartum depression commences during pregnancy. The risk factors that pertain for depression outside the perinatal period are also risk factors for pregnant women. In addition there are risk factors specific to the perinatal period: endocrine, socio-demographic and developmental. Perinatal depression, if untreated, has negative effects on pregnancy outcome, baby development, adolescent and adult mental health. Perinatal depression should screened for and actively managed. These issues, and specific management strategies, will be discussed in this presentation. Veronica O Keane will present her work examining HPA axis function in normal and depressed pregnant women; and the effects of depression on the baby's stress systems. Possible mechanisms of transmission will be discussed.

Conclusions: There is much evidence to support the fetal programming hypothesis in relation to maternal depression and the effects of this on the developing fetal HPA axis stress system.

Conflict of interest: None.

Keywords: Perinatal depression, HPA axis function.

M4-01-05
Advances in neonatal care and implications for infant development and mental health

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Neonatal Intensive Care is a rapidly developing speciality of paediatrics. Changes both in prenatal diagnosis, fetal medicine, and in the management of a range of neonatal conditions such as extreme prematurity, neonatal encephalopathy, trisomy 21 among others have led to increased survival and improved morbidity. Changes both in neonatal medical and nurding care have resulted in a changing landscape in the field and in the prognosis and future development of infants. This presentation will highlight the advances in neonatology relevant to infant mental health and child and adolescent psychiatry. Problems to be discussed will include the improved outcome of preterm infants with associated decrease in cerebral palsy and major neurological disability, with the emergence of autism spectrum disorders and other neurodevelopmental disorders with increasing prevalence in this population. There is improved survival of infants with major congenital anomalies with behavioural cognitive and social-emotional sequelae. Improved understanding of the relationship between perinatal inflammation and later neurodevelopmental and neuropsychitric presentation will be highlighted as an area of growing research. Challenges facing the field and the collaboration between disciplines will be discussed. Conclusions: Emerging evidence supports the importance of perinatal and neonatal health for longer term neurodevelopmental and mental health outcomes.

Keywords: Neonatal Intensive Care, infant development, neonatal encephalopathy.

M4-01-06
Loss of a fetus/baby in pregnancy: complex effects on attachment in subsequent pregnancies

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The bonding of the mother to her new born infant is a vital but complex process, subject to so many influences. Research has repeatedly shown that loss in a previous pregnancy is frequently a significant risk factor for difficulties with attachment in subsequent pregnancies. But the research has also focussed mostly on the stage of pregnancy when the fetus was lost, or has classified the causes of or different types of loss rather than the subjective nature of the loss which is of course key. For example, for a mother who has a miscarriage at 7 weeks, was it a heavy bleed like a period, or did she lose a pregnancy, or has she lost a baby? And an ectopic pregnancy? When she agreed to removal of her fallopian tube and foetus, was it life saving for her, was it a termination ? Or was a molar pregnancy just a complicated pregnancy, or a baby, or a mixture, or a cancer ? And if she had a termination, for her, what was it that was removed? Or if she was told that her baby had an abnormality which was incompatible with life, how did she see that baby, was it never going to have life or did it have life now and was it suffering or in pain or suffocating or was it just death inside her that she could not bear? For mothers who have experienced the loss as the loss of a baby, irrespective of the stage of pregnancy, issues such as how the fetal tissue or the body was dealt with or disposed of, and where their baby is now, physically and/or spiritually, may be among the key issues that questions need to address. Clinical cases from a Perinatal Psychiatry Service, which assesses mothers in pregnancy, will be used to illustrate the importance of an understanding of these issues and the need for detailed history taking about the nature of this type of loss for the mother, in helping her to prepare for her next pregnancy. Unless the grief for that loss has been worked through, it will inevitably affect the mothers ability to begin to attach in her next pregnancy, and in a secure way to her next baby after the birth.

Keywords: Fetal loss, grief, attachment difficulties.

M4-02-01
Self-management strategies in improving and generalizing adaptive skills in adolescents and young adults with high-functioning autism spectrum disorder (HFASD)

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Background: The levels of adaptive skills of adolescents and young adults with HFASD show substantial impairments and are lower than would be predicted by their cognitive ability. In improving adaptive skills, the use of self-management strategies is recommended as they may promote generalization and independence. We report on two studies in which the teaching of self-management was evaluated regarding the generalized and/or independent use of adaptive skills.

Methods: One study was conducted in a simulated setting and targeted on improving on-task behaviour in a natural job-training setting (i.e., generalization). The other study was conducted in a natural setting and aimed at improving transitioning between daily activities. In this last study, data on prompt use by staff were collected to evaluate the effectiveness on independent transitioning. Interventions aimed at teaching self-management strategies combined with technical supports (i.e., a flowchart or prompts on an iPod). Behavioural procedures were used such as discrimination learning, behavioural practice, error correction, and/or feedback. A multiple baseline design across (small groups of) participants was used in each study.

Results: The intervention in the simulated setting ($N = 6$) resulted in a statistically significant increase in on-task behaviour in the natural setting ($F(1,5) = 30.55$, $p = 0.003$), indicating that generalization had occurred. Results were maintained at 6-week and, partially, at 6-month follow-up. The intervention in the natural setting ($N = 4$) resulted in a statistically significant increase in independent transitioning between daily activities ($F(1,3) = 203{,}87$, $p = 0.0007$). Data on prompt use by staff revealed that the increase in independent transitioning was the result of a significant decrease in transitions that, during baseline, were prompted using non-specific prompts. No decrease was found in transitions that were formerly prompted by verbal instructions. Results were maintained at 6-week follow-up for the two participants that still used their iPod.

Conclusion: The behavioural teaching of self-management strategies combined with visual or digital supports improved the generalized and independent use of adaptive skills by adolescents and young adults with HFASD. However, fully independence in the targeted skills was not reached. It seems that the type of prompts used by regular care providers may hinder the independent use of adaptive skills by adolescents and young adults with HFASD. As persons with ASD are susceptible to prompt dependence, future research should target on the fading of adult delivered prompts.

Keywords: Self-management, Adaptive skills, Autism spectrum Disorder, High-functioning, Adolescents, Young adults.

M4-02-02
Phenomenology, psychoanalysis and family therapy

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The clinical meeting with suffering teenagers, their therapeutic approach begun and led more specifically in the field of child psychiatry, brings us to connect simultaneously various aspects of the same reality: that concerning the specificity of their mental functioning linked to their identity, and that concerning their place, their functions in their natural environment which linked to their belonging. Belonging and identity build themselves up the one from the other one. They intervene both in the psychic economy of the subject, in his/her relationship regarding pleasure and in his/her perception of reality. To a certain extent, they are cannot be separated.

The psychodynamic and phenomenological enable us to apprehend individual intrapsychic reality. This concerns the specificity of the mental functioning of the subject and, without excluding the dimension of intersubjectivity, it centres mainly on the dimension of his/her identity.

As for the systemic approach, it leads into the analysis concerning the place and the functions held by the subject in his/her natural environment, which is specific to his/her belonging. It centres on the interactions between the members of human systems by recognizing the importance of the laws—rules, structures,—while also incorporating the dimension of the event.

Such articulation and extension lead to a reciprocal exploration of the dimensions of the intra subjective, of the intersubjective and of the contextual at an age which is being questioned, because of the important transformations which characterize it, as much in the dimension of identity just as in that of belonging. Our work as practitioners in the systemic approach is constantly enriched by reference to phenomenological psycho-pathology an psychoanalysis.

Phenomenology seems as a bridge between psychoanalysis and family therapy.

Our presentation will thus deal with the question of the contributions of these currents of thought to our training practice.

Keywords: Phenomenology, Family therapy.

M4-02-03
MICHI-evaluation of a manualised, psychosocial intervention programme for depressed adolescents: Pilot study results of outpatients and inpatients

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Background: According to the world health organisation (WHO), depression is one of the most frequent and devastating disorders worldwide. Being diagnosed with depression in childhood or adolescence for the first time, heightens the risk for a chronic course of the disorder or the chance for relapse in adulthood. Regarding treatment modalities of depression in children and adolescents, cognitive-behavioural therapy as well as medication, by means of selective serotonin reuptake inhibitors, was shown to be successful. Furthermore it could have been shown that nearly a quarter of depressed adolescents remitted after participating in a brief intervention ($N = 3$ sessions).

Goal of the present study was the (further) development, implementation and evaluation of a brief psychosocial, manualised, cognitive-behavioural group therapy programme for adolescents with depression.

Method: The group-therapy programme, “Manualized intervention to cope with depressive symptoms, help strengthen resources and improve emotion regulation” (MICHI), consists of six sessions for 75 min each. The contents of the programme are psycho-education, problem solving, resource activation, cognitive restructuring, emotion regulation and self-management.

First of all, MICHI was carried out and evaluated with 9 depressed adolescent inpatients ($M = 16.43$ years; $SD = 1.68$) and subsequently with 15 depressed adolescent outpatients between 13 and 18 years ($M = 16.42$ years; $SD = 1.43$). For the pilot study, a pre- and pos*t* test design was chosen with a follow-up measurement 5 weeks after the last regular session. Depression scores were assessed by means of the children’s depression rating scale revised (CDRS-R).

Furthermore, acceptance and feasibility was evaluated and considered in the subsequent revision of the training programme. At the moment, we are evaluating the efficacy of MICHI by means of a randomised, controlled trial design.

Results: Depressed inpatients showed a significant improvement considering depression scores, $z = -2.66$, $p = 0.008$, as well as depressed outpatient adolescents, $F(2,\ 28) = 7.70$, $p = 0.002$, $\omega^2 = 0.11$(moderate effect size), after participation in MICHI. Furthermore, a significant reduction of suicidal ideations could have been shown as well as an improvement of quality of life. Overall, patients rated the training programme as helpful and comprehensible.

Discussion: The contents of the training programme, the feasibility and results considering its efficacy, will be presented. Challenges of group therapies in ambulant therapy settings will be discussed critically.

Keywords: Depression; adolescents; brief psychotherapy; cognitive-behavioural therapy; group intervention.

M4-02-04

Effectiveness of psychodynamic outpatient treatment for children and adolescents with anxiety and depressive pathology

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Aim: The aim of this waitlist-controlled field study is to evaluate the effectiveness of psychodynamic short and long term psychotherapy for children and adolescents employing a prospective design.

Methods: Study participants were children and adolescents (aged 4–20 years) entering psychodynamic therapy in private practices between Sept. 2007 and Oct. 2012. Data was collected from therapists, parents, and patients (if aged $\geq$11 years). Questionnaires were administered at the beginning and the end of treatment, as well as up to 5 points in time during therapy. Follow-up took place at 6 and 12 months after therapy. We measured anxiety (SCARED), depressive pathology (CDI), and health-related quality of life (QoL; KIDSCREEN). For the anxiety group, 49 patients were intervention patients and 27 were wait-list controls. In the depressive group, 35 patients were intervention patients and 17 were wait-list controls. For both pathology groups we selected those patients who showed clinical levels of pathology rated either by the parents or the adolescent on the CDI for depression and the SCARED for anxiety.

Results: Patients received on average 95 sessions of therapy (range 25–205) over a period of 23.5 months (SD = 12.67). Overall, patients showed pronounced impairments with an ICD-10 diagnostic status and impaired QoL at the commencement of outpatient therapy. At the end of therapy, both the depression and the anxiety groups showed a significant reduction in parent- and self-reported depression/anxiety with medium to large effect sizes (anxiety: parent d = 0.83, patient d = 0.63; depression: parent d = 1.16, patient d = 1.07). For 60 % of the depressed and 53 % of the anxiety sample, a clinically significant and reliable change was reported either by the parent or the patient. Thirty-four percent of the depressed and 29 % of the anxiety patients experienced neither a reliable nor a clinically significant improvement. QoL improved significantly according to self-report and parent report. The wait-list control group displayed partially significant symptom improvements with small to moderate effect sizes. There were small to medium differences in effect sizes in anxiety/depression between the control and the intervention group; these effect sizes, however, did not reach significance.

Discussion: The results suggest that psychodynamic therapy is successful in alleviating depressive and anxiety pathology and improving QoL for a significant quota of depressed and anxious children and adolescents. These positive effects show high stability 1 year after treatment.

Keywords: Psychodynamic psychotherapy, children, adolescents, outpatient treatment, depression, anxiety.

M4-02-05

Analysis of multiple-informant SDQ as an outcome measure in a clinical setting

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Background: The Strengths and Difficulties Questionnaire (SDQ) was developed for screening and epidemiological research of mental health problems among children and adolescents in normal populations, where its psychometric properties have been evaluated as good. Because of its ease to fill and score, and its free availability in many languages, there are expectations to extend its use more to clinical outcome studies. The aim of this study is to explore the properties of SDQ as an outcome measure in tertiary care.

Methods: In Child Psychiatry Clinic of the Helsinki University Hospital 4,445 SDQ evaluations were collected along clinical practice from 1,429 patients between Sept 2008 and Jan 2012, from mothers, fathers, teachers and children themselves, in 1–4 time points. Classification of scores as ‘normal’, ‘borderline’ and ‘abnormal’ was based on the cutoff points given on http://www.sdqinfo.com. Agreement in classification between informants was measured by Cohen’s kappa.

Results: There were 1,404 forms filled by mother, 934 by father, 1,249 by teacher, 574 by child, and 284 by other informants (grandparent, step parent etc.). Patients were 3–14 years old at the time of measurement (77 % between 7 and 12). In the first assessment the average total problem score was 16.9 ($SD = 6.5$) by mothers, 14.5 ($SD = 6.3$) by fathers, 15.8 ($SD = 7.1$) by teachers, and 13.8 ($SD = 6.3$) by self-report. The agreement between all informants was only fair (kappa: mother/father 0.37, mother/teacher 0.20, mother/child 0.21). During the observation period (average 320 days, minimum 120) according to each informant about 10 % patients transferred from abnormal range to normal range in total score. The average change over time was −2.7 ($Q_1 = -5.4$, $Q_3 = 1.0$) points per year in total problem score by mothers, −2.0 points/year ($Q_1 = -6.5$, $Q_3 = 2.0$) by fathers, and −2.4 ($Q_1 = -6.7$, $Q_3 = 2.7$) points/year by teachers. Even when the total problem score was normalized during the treatment, 1–2 symptom scores often remained on the abnormal level.
Conclusion: SDQ shows sensitivity to change towards improvement during treatment. However, changes are small, and future studies should compare SDQ changes with clinical evaluations. The reasons of a significant inter-rater disagreement should be studied further, likewise its clinical and prognostic meaning. It might be important to find methods to combine the opinions of different informants, who represent the child's all important environments. It may not be wise only to follow the total problem score, while even a normal total score may shadow abnormal axis scores.
Keywords: Strengths and Difficulties Questionnaire, Outcome.

M4-03-02
Family environment and mental health problems in children and adolescents

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Question: Mental health problems in childhood and adolescence are highly prevalent and may be determined by the family environment. As the family environment is susceptible to intervention and prevention further knowledge of the impact of familial risks and resources on children's and adolescents' mental health problems are of special interest.
Methods: Analysis were based on quantitative data from the German longitudinal and representative BELLA study, which is the mental health module of the German National Health Interview and Examination Survey among children and adolescents (KIGGS). In the BELLA study 2.863 children aged 7–17 years and their parents participated at baseline assessment from 2003 to 2006. The BELLA cohort was then followed-up in three additional waves (Wave 1: 2004 to 2007, Wave 2: 2005 to 2008, Wave 3: 2009 to 2012). Mental health problems were assessed by means of the extended version of the Strength and Difficulties Questionnaire (SDQ) and a clinical diagnostic Interview (DIPS). Familial risks (e.g. mental disorders, chronic diseases, low quality of life of the parent interviewed, family conflicts and low socioeconomic status) and resources (positive family climate, parental support) were assessed by further standardized measures.
Results: A considerable number of children and adolescents in Germany showed symptoms of mental health problems. At baseline, high levels of family conflicts (OR: 2.0, 95 % CI: 1.2–3.3, $p < 0.01$), high parental strain (OR: 2.0, 95 % CI: 1.3–3.0, $p < 0.01$) and growing up with a step-parent (OR: 2.4, 95 % CI: 1.6–3.7, $p < 0.001$) particularly predicted mental health problems. Children with mental health problems ($M = 52.7$, 95 % CI: 50.2–55.2) were more unlikely to report a positive family climate compared to those without mental health problems ($M = 62.0$, 95 % CI: 61.2–62.9, $p < 0.001$). Further results on longterm interaction effects of familial risks and resources on mental health problems are reported.
Conclusion: The family environment can entail risks and resources and is therefore an important area for intervention in the prevention of mental health problems in childhood and adolescence.
Keywords: Mental health problems, children and adolescents, family risk and resources.

M4-03-01
Children as Victims of War

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Children are uniquely vulnerable to military recruitment because of their emotional and physical immaturity. They are easily manipulated and can be drawn into violence that they are too young to resist or understand. Many child soldiers become desensitised to violence, often at a very formative time in their development, and this can psychologically damage them for life. The effects on children are therefore felt long after their physical scars have healed and they have been set free.
Impact of Violence on Children
From earliest infancy through to young adulthood, children and adolescents grow and develop according to their age and ability. This developmental pathway is influenced by a wide range of factors, and children's response to violent situations is a highly complex, interactive and multi-dimensional process. This presentation will explore the impact of violence on children, and highlight the different levels at which conflict can impact negatively on children's growth and development.
Former Child Soldiers: Psychological Consequences and Rehabilitation
There are numerous papers on the psychological consequences of children caught up in war. However little is known about the psychological consequences for young people who are recruited as child soldiers in conflicts. There are about 250,000 child soldiers in the world today, and the majority have been abducted, forced into a form of slavery, used for aggression, used as porters or used as sex slaves. This presentation reviews the current literature and highlights some of the difficulties and challenges that therapists may face when working with these potential clients.
Keywords: Child soldiers Victims Child development.

M4-03-03
Parental unemployment and post traumatic stress disorder symptoms

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Scope: Greece is under a devastating economic crisis that has a deleterious impact on psychosocial health since 2009. The aim of the present study was to explore the impact of parental unemployment on the development of post traumatic stress disorder (PTSD) symptoms in students.

Method: Participants were 2,628 primary school students from the largest metropolitan area of southern Greece. There were 844 4th graders, 854 5th graders and 930 6th graders who were selected from 35 elementary schools using stratified random sampling procedures. There were 1,322 girls and 1,306 boys. Ninety six percent of the students were of Greek origin and the remaining had been born in other countries ($N = 15$). The current research was part of a larger anti-bullying prevention program, supported by the European Commission and the Greek Ministry of Health. Students were administered a battery of measures including the Child Posttraumatic Stress Reaction Index (Frederick, 1985). Modifications in Greek involved adapting item phrasing to reflect PTSD symptoms in relation to exposure to school bullying. According to the information provided by the students, 33 of them had both parents unemployed. The PTSD levels of students with both parents unemployed were compared with the PTSD levels of students with at least one of their parents employed by performing one-way ANOVA.

Results: The ANOVA model applied revealed significantly greater PTSD levels in children with both parents unemployed ($\text{Mean} = 30.3$, $SD = 18.4$) as compared to children with at least one of their parents employed ($\text{Mean} = 23.9$, $SD = 12.7$), $F(1,2375) = 7.1$, $p < 0.01$. The prevalence of school bullying was similar between the two groups of students. No significant variations were observed between the groups in reference to various demographic characteristics such as age, gender, ethnicity, and parental level of education.

Conclusions: The present findings indicate the need for the development of individualised psychosocial interventions that focus on supporting children experiencing environmental stressors such as parental unemployment.

Keywords: Post traumatic stress disorder symptoms, economic crisis, parental unemployment, school bullying.

M4-03-04

Adolescence in a prolonged traumatic social environment

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In establishing psychological balance and enabling undisturbed completion of development, social environment, beside the family, plays a very important role. The role of the environment of adolescents can be constructive and stimulative as well as destructive and inhibiting. The period of the fall of the former Yugoslavia until today (1990–2013) covers a line of generations of young people who have spent a part of their lives or the whole life in traumatic circumstances.

This caused a deficit at a various levels of identity; they have lived in four states but have never changed their address which had strong influence on their understanding of their own national identity and belonging. Specific forms of deviant behaviour were caused by the economic crisis, isolation, sanctions of the international community, bombing, exile, refugees, internally displaced and stateless people. Multiethnic families were destroyed; family members were disappearing; young people were emigrating either with their families or on their own, enrolling into schools without any entrance exams. Feelings of isolation and rejection were conditioned with the inability to obtain the visa of the country where the entrance was sought. In this way the contact with other cultures, customs and other nationalities, was restricted. The most obvious thing was the strengthening of negative selection by peer groups resorting to aggressive behaviour, delinquency, abuse of the PAS, masked form of prostitution locally called ‘sponsoring’ and the increase of peer violence, abuse and neglect of young people. Adolescents in 2013 have to fight the feeling of meaninglessness, the lack of economic perspective, the feeling of isolation in Europe and the whole world and a huge unemployment rate, predominantly amongst young people. Feelings of loneliness is often and they have difficulties in realization of stable emotional relationships. They are fanatic fans of sportsmen because they are the only positive idols.

There are, however, some progressive streams that support the study of other cultures and people. They increase tolerance for all forms of diversity. A good number of young people study at universities that enable them to find jobs abroad, but majority of them sink into depression and the feeling of unworthiness and loss of perspective.

Keywords: Adolescence, traumatic environment, aggression, depression.

M4-03-05

Fortunately too young? The impact of parental cancer on emotional and behavioural regulation in early childhood

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Introduction: Parents with an oncological illness are, due to the seriousness of the diagnosis and its physical and mental consequences, under formidable strain. Parents of children of all ages, but especially parents of children under the age of five, have concerns regarding their illness and the cognitive and socio-emotional development of their children. They question as to what degree their child can be aware of their parent’s illness, hoping that their child is “*fortunately too young*” to be affected by the fears, sadness or anger that accompanies the diagnosis of an oncological illness. This study addresses the question of whether parental strain does have an effect upon the mental health of those children in their early stages of development and the parent–child interaction in the context of a cancer diagnosis.

Method: Within this multi-site research project 22 children, mean age $M = 3.3$ years, and a parent that has been diagnosed with cancer were involved in the study. Mothers were preceded, otherwise fathers ($n = 2$). The sample consisted of 11 healthy partners and 11 ill partners. Parental mental strain caused by anxiety and depression was measured utilizing the Hamilton Anxiety and Depression Scales (HADS). Parental physical and mental quality of life (QoL) was measured utilising the SF-8. Family functioning was assessed by the Family ‘Assessment Devise (FAD). Children’s mental health was assessed by CBCL/1½-5. The parent–child-interaction was observed in a standardized situation (Lausanne Triadic Play) rated by the Coding interactive Behaviour system (CIB).

Results: The group comparison between healthy and ill parents showed significant differences between physical QoL, but did not show significant differences in mental strain or in the quality of parental interaction. Interaction quality was nearly unrestrained throughout the sample. Regression analysis for both healthy and ill parents together showed an influence of parental anxiety on children's somatic and internalised symptoms. Moreover, a limited open family-communication was correlated with children's withdrawal. Neither physical QoL nor the quality of parental interaction showed to have an affect on the children's psychological symptoms. The results suggest that children under the age of five are not "*too young*" to be aware of the levels of parental strain and in addition to that they seem to react to family-environmental conditions.

Keywords: Early childhood, parental cancer, mental health care.

M4-04-01

Neuropsychological and polysomnographical diagnostics in duet: sleep disorder as differential diagnosis in child and adolescent psychiatry

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In the last years various studies describe the impact of sleep parameters for different psychiatric syndromes and disorders even in childhood and adolescence, especially ADHD; a relationship well known in adult psychiatry. Children with ADHD show significantly more movement in sleep than children without this diagnose (Konofal et al. 2001; Cortese et al. 2006). Picchietti et al. (1998) discuss the connection between periodic limb movement disorder (PLMS) and inattention and motoric hyperactivity. Sleep management can sufficiently reduce the intensity of behaviour problems (Owens 2005; Jan et al. 2011). Paavonen et al. (2003) report a higher risk of internalisation disorders for children with sleep disturbances. To characterise childhood depression or childhood bipolar disorder, Luckenbaugh et al. (2009) suggest to use sleep parameters like decreased total sleeptime or behavioural problems during sleep. In psychiatric differential diagnostics there seems to be a lack of allowance for sleep disorders to be a possible source of deficits in attention, cognitive efficiency, emotional or behavioural regulation. It is yet unclear, if and how sleep disorders are caused by ADHD or if disorganisation of circadiane rhythm triggers the begin of psychiatric disorders (Kissling et al. 2008). In a sample of children with major depression Robert et al. (2006) found age-related differences in macroachitecture of sleep, e.g. percentage of stage 1 and stage 2, slow-wave sleep or REM-latency. Based on current literature atypical polysomnographical and neuropsychological results of selected cases are presented and discussed in detail. The interaction between sleep architecture and both emotional and cognitive deficits will be described. Up to now the relevant literature is based predominantly on adult patients. Knowing the different phenotype of childhood disorders there is a need to focus on the topic of sleep in child and adolescent psychiatry. These complex cases underline that empirically based studies to are needed examine the link between neuropsychological, polysomnographical and genetic parameters.

Keywords: Sleep, PLMS, RLS, ADHS, Neuropsychology.

M4-04-02

Chronobiology, sleep and depression in adolescents

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Introduction: Depressed adolescents often suffer from sleep problems resulting in daytime sleepiness or reduced daytime activity. However, available data on these sleep problems are inconsistent: Some studies report objective abnormalities of night sleep, while others observed no or only few objective abnormalities despite of high subjective impairment of sleep quality. Finally, the impact of biological predispositions on sleeping difficulties in depression remains elusive.

Chronobiology offers a new perspective to approach these questions: The circadian clock synchronises with the external 24 h light/dark cycle and orchestrates human physiology and behaviour. The individual phase of synchronisation, or 'chronotype', has a genetic background and shows near normal distribution with a range of up to 12 h.

Late chronotypes accumulate a sleep deficit on school or work days, since school/work days begin largely before their circadian clock would have woken them. This discrepancy between internal and external time, the so-called 'social jetlag', is associated with decreased psychological well-being. This is in particular relevant to adolescents, being on average especially late chronotypes, since school times start relatively early (even compared to work times).

In this pilot study we aimed at investigating subjective and objective sleep and activity parameters in depressed and healthy adolescents.

Methods: 21 adolescents with acute and (partially) remitted depression and 19 age-matched healthy controls participated in the study. We assessed depressive symptoms, sleep quality, and chronotype. In addition, actimetry was continuously performed over a four-week period, allowing for the extraction of objective sleep timing, behaviour, daytime activity, and light exposure. These parameters were correlated with severity of symptoms.

Results/Discussion: Analyses revealed that patients tend to be subjectively later chronotypes, and concurrently suffer from more social jetlag than healthy controls. Depressed adolescents report significantly reduced sleep quality, more sleep problems, and increased daytime sleepiness. Actimetry data showed that patients sleep significantly longer on free days, but not on work days. Moreover, the severity of depressive symptoms and reduced sleep quality correlate with subjective chronotype, social jetlag, and actimetry parameters such as the activity amplitude. Taken together, these results underscore the relevance of the circadian clock in depression and prompt further investigations.

Keywords: Depression, sleep, chronobiology, actimetry.

M4-04-03

Sleep disturbances in children with autism spectrum disorder: impairment of the homeostatic drive for sleep?

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Study objectives: Sleep and circadian rhythm disturbances are highly prevalent in the Autism Spectrum Disorders (ASD). These disorders may be explained by alterations of sleep regulatory processes, among which circadian rhythm disturbances (process C deficits) have previously been described. However, few studies have assessed the possible contribution of another sleep regulatory component, the homeostatic drive (process S). Alterations of sleep homeostatic processes might be of particular importance in children with ASD, as sleep homeostasis has previously been linked to learning and brain plasticity. In this study, we aimed to analyze the homeostatic drive for sleep in children with ASD compared to a group of typically developing children.
Methods: 10 children with ASD (mean age 8.3 years ± 1.6) and 10 sex-matched typically developing children (mean age 10.6 years ± 1.43) underwent full overnight polysomnography recording. Temporal kinetics of deep slow wave sleep and rapid eye movement sleep (REM sleep) across the night were compared between the two groups.
Results: Children with ASD spent significant less time in deep slow wave sleep during the first third of the night ($p < 0.05$), and underwent a slower decline across the night. Conversely, REM sleep increased at a slower rate across the night, with significant less time spent in REM sleep during the second third of the night ($p < 0.05$).
Conclusions: Detailed analysis of overnight sleep EEG suggests that, in addition to circadian rhythm disturbances, alterations of the homeostatic drive for sleep may contribute to the very common sleep disturbances in children with ASD. If confirmed, these findings might be of additional interest as deficits of deep slow wave sleep and the homeostatic drive for sleep have previously been linked to homeostasis of the synapse, learning and brain plasticity.
Keywords: Autism spectrum disorders, sleep, circadian, homeostatic drive.

M4-04-04

Subclinical psychotic symptoms and sleep problems are associated in children of the general population at age 11–12 years

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Background: Sub-clinical psychotic symptoms may be important risk markers for co-occurring psychiatric problems and disorders and later development of psychosis. The aim of the present study is to describe (1) the prevalence of psychotic symptoms in absence of psychotic disorder and (2) the associations with affective symptoms and sleep problems in children aged 11–12 years.
Methods: A total of 1,620 children (48 % boys) were investigated as part of the 11–12-year follow-up of a birth cohort of 6,090 children of the Copenhagen Child Cohort (CCC2000). Assessments: Semi-structured interview and ratings of selected items of psychotic and affective symptoms from the K-SADS-PL. Each psychotic symptom (PS) was scored "probably" or "definitely" present (score 2–3) or not present (score 0–1), throughout life. Depressed mood (DM) was measured with the core symptom "depressed mood" (score 2–3) throughout life. Sleep was measured by child self-report of current sleep duration and sleeping problems. Sleep $\leq$8.5 h/night was defined a priori as cut off for reduced sleep (RS), based on the literature on normal length of sleep in children of age 11–12 years. All associations were examined by Chi square tests (χ^2).
Results: A total of 169 (10.4 %) had experienced at least one PS (11.1 % girls vs. 9.7 % boys) in life, 206 (12.7 %) had experienced DM (14.2 % girls vs. 11.2 % boys), and 235 (14.5 %) slept $\leq$8.5 h/night [(RS) 16.2 % girls vs. 12.7 % boys]. RS was associated with a number of sleep problems including difficulties falling asleep. PS was highly correlated with DM (26.1 % of children with PS vs. 8.3 % of children with no PS, χ^2 (df = 1) = 60.2, $p < 0.0001$) and with RS (20.0 % of children with PS vs. 8.8 % of children with no PS, χ^2 (df = 1) = 26.9, $p < 0.0001$). DM and RS also correlated (χ^2 (df = 1) = 5.4, $p = 0.021$), and all three factors varied by gender. After Stratifying by gender and by DM, the positive correlation between PS and RS remained statistically significant in all groups, except boys with DM, who showed a non-significant association. More than twice as many children with PS slept $\leq$ 8.5 h/night compared to children without PS.
Conclusion: Reduced sleep and related sleep problems were significantly associated with a history of psychotic symptoms, also when controlled for gender and depressed mood. Longitudinal analyses in the CCC2000 will examine the interactions between psychotic symptoms and sleep problems in the developmental pathways of psychotic disorders.
Keywords: Psychotic symptoms, population-based, risk factor, sleep problems, depressed mood.

M4-05-01

Childhood trauma and child and adolescent psychiatric diagnoses

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Studies on the associations between different child and adolescent diagnoses and experiences of traumatic events are scares. In this presentation two different studies focus on the association between traumatic events and social anxiety disorders (SAD) and non-suicidal self-injury (NSSI) respectively.

In the first study exploring the association between PTSS and SAD among 5,960 high-school students participated. Socially anxious adolescents reported significantly higher levels of PTSS than adolescents not reporting SAD and this difference was seen in victimized as well as non-victimized subjects and significant odds ratios were found for a condition of SAD and elevated PTSS (OR = 4.88, 95 % CI = 3.53–6.73) but not for SAD only. Screening of PTSS in adolescents with SAD is recommended.

In the second study the purpose was to examine overlapping and distinguishable features in groups with different types of self-injurious behaviors, using a large community sample of 2,964 (50.6 %

female) adolescents aged 15–17 years. Of the total sample, 1,651 (55.7 %) adolescents reported no self-injurious behavior, 630 (21.2 %) reported NSSI 1–4 times, 177 (6.0 %) reported NSSI 5–10 times, 311 (10.5 %) reported NSSI C 11 times, 26 (0.9 %) reported lifetime prevalence of suicide attempt and 169 (5.7 %) adolescents reported both NSSI and suicide attempt. Pairwise comparisons showed that adolescents with both NSSI and suicide attempt reported significantly more adverse life events and trauma symptoms than adolescents with only NSSI, regardless of NSSI frequency. Adolescents with frequent NSSI reported more adversities and trauma symptoms than those with less frequent NSSI. These findings draw attention to the importance of considering the cumulative exposure of different types of adversities and trauma symptoms when describing self-injurious behaviors, with and without suicidal intent.

Keywords: Social anxiety disorders, SAD, non-suicidal self-injury, NSSI, trauma.

M4-05-02

Bullying in adolescents with Asperger Syndrome: how to prevent and manage it by social skills training groups?

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Background: A large number of children and adolescents with Asperger Syndrome are affected by bullying. This phenomenon leads to serious consequences: anxiety, behaviour disorders, school phobias or depressive episodes. Social Skills Training Groups are often used for this population and can represent an effective way to prevent or manage this specific problem.

Objectives: To describe specific strategies carried out in Social Skills Training Groups for helping adolescents to prevent or cope with bullying.

Methods: Forty eight adolescents participated in Social Skills Training Groups based on cognitive behaviour therapies during 28 sessions lasting 1 h. One of our main goals was to prevent bullying or to cope with it. By learning social skills, we hypothesised that these adolescents would be able to make friends, thus reducing the risk of occurrence of harassment. We developed an approach in which we included specific strategies for preventing and managing bullying:
Creating an environment conducive to speaking.

Using a therapeutic game we designed with specific cards concerning bullying.

Identification of peers' intentions.

Coping strategies using cognitive restructuring and training in solving problems.

Learning of appropriate behaviors by role playing.

Partnership with parents and teachers.

To assess the global impact of Social Skills

Training Groups,

We used the Social Responsiveness Scale,

The Faux pas recognition test,

The Friendship questionnaire and the Revised Child Anxiety Depression Scale.

To assess bullying, we designed a specific checklist. It was completed using parents' and teachers' interviews.

Results: There is significant improvement in all the psychometric scales we used. This reflects a better ability in social reciprocity, theory of mind, friendship and anxiety management. Meanwhile, the results of the bullying questionnaires completed indicated that in more than two-thirds of these cases, this phenomenon was removed or significantly reduced. The prospects for improving the methodology (specific assessment of the bullying) and limitations of strategies implemented are described and discussed.

Conclusion: It is very important to integrate the management of bullying in Social Skills Training Groups for children and adolescents with Asperger Syndrome because many of them are victims of this phenomenon.

Keywords: Adolescents, Asperger syndrome, Cognitive behaviour therapies, Social skills, training.

M4-05-03

Understanding bullying to assist in effective education strategies for young people in schools

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The present study examined the development of moral reasoning and the prevalence of aggression in adolescence. The terms of aggression was embedded into the subset that makes up bullying behaviour in schools. Aggression was investigated in terms of direct, indirect and verbal aggression. Further hypothesis were in response to prior research and proposed that males would display higher levels of direct aggression and females more indirect aggression. The former part was significant, however, the latter prediction of female aggression was not supported These results support much prior research and opens the possibility of positive interventions for our attempts in reducing school bullying and improving the mental health of our students.

Educating our young people in social skills and nurturing empathy and morality will decrease the rising rates of bullying and bullying related suicide in Ireland today.

The research suggests that with increased social moral development comes decreased aggression, of all types, namely those aggressive behaviours most seen in our schools. Bullying in our schools therefore requires restorative interventions, not the traditional and customary discipline. This is especially true for those in primary education and those who have been emotionally vulnerable at times through their childhood, whose empathic development requires nurture and support not punishment and authoritarian approaches.

Students that are bullied may be too fearful to report because the students who are reprimanded then harbour revengeful feelings, a key factor in the manifestation of cyber bullying. Instead we need to adopt a restorative practice, which can remove the fear of the opposers punishment, can promote empathy, enable coping skills and empower our young people.

Keywords: Bullying, schools, intervention, prevention, policy, restorative, moral development.

M4-05-04

Bullying victimisation and mental health among adolescents in Ireland-going deeper with a mixed methods approach

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Objective: The objective of this on-going study was to investigate bullying victimisation and adolescent mental health outcomes. The quantitative aspect of the study used a mediation analysis to explore the relationship between protective factors, bullying and mental health outcomes. Namey et al. (2007) state that mixed-methods research into bullying can lead to a deeper understanding of the subject, thus content analysis of the explanations of bullying which participants provided was carried out in order to contextualise the quantitative findings.

Method: Data were collected as part of the My World Survey (MWS), a large survey-based study of youth mental health in Ireland. Participants were 6,085 second level students aged 12–19 years old (M = 14.93, SD = 1.62). The MWS collected data on positive (e.g., life satisfaction, self-esteem) and negative (e.g., depression, anxiety) domains of psychological health.

Results: Of the sample, 44 % reported to have been bullied at some point. Females (49 %) were more likely to report being bullied than males (40 %). The majority of those who had been bullied had been verbally bullied (31 %). Adolescents who reported being bullied were significantly more likely to report higher levels of distress, and lower levels of life satisfaction, peer and school connectedness and self-esteem. A mediation analysis using Preacher and Hayes' (2008) method investigated personal and social factors which buffer for mental health outcomes those who were bullied. Participants were asked to provide a definition of bullying so as to obtain an in-depth understanding of adolescents' conceptualization of bullying. Over 3,500 definitions of bullying were provided. Data were handled using (NVivo, 2012) which isolated the most frequently occurring words in the students' definitions. Occurrences of frequent words were analysed using content analysis (Guerin and Hennessy, 2002). Interesting age differences emerged. Junior cycle students most frequently described bullies and bullying behaviour as 'mean'. Junior cycle students believed that there was no acceptable reason to behave in a mean way. Senior cycle students most frequently referred to feelings when describing bullying, and emphasized how bullies would benefit emotionally through feeling more powerful than the victim. Conversely, senior cycle students frequently referred to negative feelings of worthlessness, isolation and insecurity associated with bullying. Senior students had almost twice as many references to the emotional effects of bullying than junior students.

Conclusions: There are clear links between adolescents' perceptions of having been bullied and their mental health distress. This research adds a more in-depth understanding of adolescents' bullying experiences by qualitatively exploring their understanding of bullying. Older students are more likely to see emotional distress as a pervading factor of bullying victimisation.

Keywords: Bullying; Youth Mental Health.

M5-01

Evidence-based diagnosis and treatment of obsessive compulsive disorder in children: standards in three European countries

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Obsessive compulsive disorder (OCD) in children and adolescents is a severe disorder characterized by ritualized behaviour (compulsions), recurrent anxiety provoking intrusions (obsessions) and in many cases avoidance behaviour. OCD often disrupts family, academic and social functioning and leads to substantial impairment in children's psychosocial development (e.g., (Piacentini, Bergman, Keller, and McCracken, 2003; Valderhaug and Ivarsson, 2005). A substantial number of children and adolescents suffer from this disorder, with prevalence estimates varying between 1 to 4 % (e.g., O'Kearney et al., 2010; Geller et al., 2012).

The evidence based treatment is cognitive behaviour therapy (CBT) or a combination of CBT with medication (SSRI). Improvement rates varying between 40 and 65 % are mentioned (e.g., (Barrett, Healy-Farrell, and March, 2004; Bolton and Perrin, 2008; De Haan, Hoogduin, Buitelaar, and Keijsers, 1998; Freeman et al., 2008; March et al., 2004). However there are large individual differences in treatment effect. Some children benefit substantially from treatment, whereas others do not. At posttreatment 50–60 % of the patients still have OC symptoms on a clinical level (CY-BOCS > 10 or 11) (POTS, 2004; Piacentini et al., 2011; Farrel et al., 2012).

This workshop will center on a case presentation of a child with OCD. Each presenter, an expert in OCD diagnosis and treatment, will discuss the current approach to evaluation and treatment in his or her country, reflecting guidelines, standards and/or state of the art practices in the countries represented.

Subjects to be discussed are:

Process of evaluation and diagnosis in the Netherlands, Sweden and Norway

Course of symptoms

Role of stress in onset of symptoms

Cultural risk factors

Role of comorbidity, especially tics, GTS and PDD symptoms in treatment

Guideline for the treatment of (partially) nonresponse after first-line treatment

Treatment of severe OCD

Involvement of parents/family

New developments in diagnosis and treatment.

Similarities and differences in guidelines and state of the art approach will be highlighted, with ample time for discussion from attendees.

Keywords: Obsessive compulsive disorder, guidelines,
evidence-based diagnosis and treatment, severe OCD,
involvement of parents.

M5-02-01

Interaction in problem-based learning tutorials: getting it right

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World Psychiatry Association, Child and Adolescent Psychiatry Section Workshop: Progressive Educational Initiatives in Child and Adolescent Psychiatry around the Globe.

With the changes introduced to medical and allied health curricula and the use of problem-based learning (PBL) as a core component in the teaching, students are prepared to take active roles in PBL tutorials. However, PBL is not a problem solving exercise. The main aim of introducing a PBL program is to enhance integration of knowledge and the use of cases to drive learning of basic sciences in a clinical format. The tutorials also aim at enhancing a number of cognitive skills including: identifying problems in the trigger, generating hypotheses, constructing mechanisms, developing an enquiry plan, ranking hypotheses on the basis of available evidence, interpreting clinical and laboratory findings, identifying learning needs, and dealing with uncertainty. Students also need to communicate effectively, and take active roles in the tutorials. Therefore, effective interaction in PBL tutorials is vital for ensuring deep learning and achieving these outcomes. The aims of this lecture are to explore the key principles for successful interactions in PBL tutorials and to highlight the major symptoms and signs in tutorials that reflect superficial learning and poor interactions. These symptoms and signs also reflect the group function and could be of great help to tutors to detect problems in the group at an earlier stage, maximize their facilitation roles, and navigate interaction to the right direction.

Keywords: PBL.

M5-02-02

Assessment of educational outcomes in PBL for advanced child and adolescent psychiatry residents

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Introduction/objective: The effectiveness of PBL as an educational strategy for advanced post-graduate learners is still largely speculative. There is some evidence from undergraduate medical student literature that PBL enhances, teamwork, social emotional understanding of the medical problems, legal and ethical issues, attitudes toward personal health, and communication and inter-professional skills[1]. There is also evidence that PBL can improve students' ability to cope with uncertainty, improve use of information technology, and lead to greater understanding evidence based medicine. New skills are required of the PBL teaching faculty to develop improved strategies to assess the educational outcomes of their PBL sessions.
Method: The presenter will discuss faculty strategies to improve the assessment students in PBL. A review of the undergraduate and post-graduate medical education literature will introduce the participants to the challenges of assessment. Models that have been utilized at the Brown CAP fellowship will be introduced. These will include Pre-post MCQ exams, written formulation of case material, concept mapping, faculty ratings of students, rating of mock consultation for specific case, and review of graduates self assessment of efficacy of PBL 1–3 years post graduation from fellowship. Challenges for faculty will be discussed, particularly time investment.
Results: PBL in post-graduate training is gaining momentum in the US and Europe. It is critical that this method of teaching be examined closely to ensure that the educational outcomes are worth the expenditure in faculty and student time and effort.
Discussion/conclusion: Assessment of educational outcomes of PBL for advanced CAP learners is critical for further advancing this pedagogical approach to learning. Models of assessment will be proposed and discussed and faculty challenges will be explored.

Keywords: PBL.

M5-02-03

World Psychiatry Association, child and adolescent psychiatry section workshop: Progressive educational initiatives in child and adolescent psychiatry around the globe

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Presentation title: Post-graduate training in child and adolescent psychiatry in Japan.

Background: Problem Based Learning (PBL) represents a major development and change in educational practice that continues to have a large impact across subjects and disciplines worldwide.
Teaching and learning about Child and Adolescent Psychiatry (CAP) within an undergraduate curriculum poses a number of challenges: What learning objectives, from what is essentially a postgraduate specialism, should be considered appropriate for an under-grad curriculum? When and within which modules should the objectives be met? What should CAP deliver that no other module delivers? What could CAP deliver that can be covered elsewhere? What are the practical challenges and obstacles to meeting CAP knowledge, skills and attitudes based learning objectives within limited time and clinical resources? It would seem that CAP because of its inherently integrative, bio-psycho-social nature and emphasis on teamwork and collaboration, would be a specialty learned optimally through PBL.
Main objectives: Explore PBL as engaging learning activity, explain the principles of PBL and provide participants with hands-on experience with PBL in CAP;
Explain how to use PBL in CAP effectively and contrast the principles of teaching in a PBL curriculum and traditional curriculum;

Discuss unique strengths and challenges of using PBL in CAP.

Present the evidence supporting PBL;

Discuss strategies and share experiences with implementing PBL in CAP in Europe, North America, Asia and Middle East.

Teaching Methodologies: In this workshop, we will use interactive mini-lectures, PBL case presentations, small and large groups interactive discussion, and it will end with feedbacks, comments and questions. This workshop will be interactive and provide opportunity for sharing of ideas and experiences.
Results: By the end of the workshop (Workshop Learning Outcomes), participants will be able:
To compare pros and cons of using PBL in CAP;

Critically appraise PBL scenarios;

Put into action acquired PBL techniques and skills.

Keywords: Progressive Educational Initiatives, PBL.

M5-02-04

Future development of child and adolescent psychiatry training in Singapore

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Postgraduate psychiatry training in Singapore has historically modeled after the British medical school system and comprises a 3-year Basic Specialty Training (BST) and another 3 years of Advanced Specialty Training (AST). This is followed by up to a year's subspecialty training overseas, typically in one of the teaching hospitals of North America, United Kingdom and Australia. With the recognition that formative training for residents varies in quality depending on the specialty, institution and supervisor, Ministry of Health and Specialist Accreditation Board (SAB), together with psychiatry teaching centers in Singapore like Institute of Mental Health (IMH), have adopted the core training guidelines and principles of the US Accreditation Council for Graduate Medical Education-International (ACGME-I) in 2010. This aims to clarify role of sponsoring institutions and help residents achieve their professional, ethical and personal development. Identification and training of key personnel such as program directors, core faculty and teaching faculty members has been critical for a successful post-graduate program. Besides adequate financial support and protected time to carry out educational and administrative responsibilities, teaching modules and curriculum have to be relevant, current and evidence-based. Introduction of formal psychotherapy training and supervision, continuity clinics and mandatory regulation of resident working hours are but some of many changes to the postgraduate training curriculum. As there is no formal child psychiatry training program in Singapore, plans are drafted for child psychiatric residents to have at least a 1-year attachment in the field at a local child guidance clinic as part of their structured learning programme and competency training, followed by a 6-month exposure in developmental paediatric medicine and paediatric neurology to hone their skills in consultation liaison psychiatry. A further 3- to 6-month attachment in an overseas accredited child psychiatric centre is also planned which serves as an added attraction for residents. This new curriculum is hoped to offer a more balanced and all-rounded training for child psychiatric residents.

Keywords: Postgraduate psychiatry training.

M5-02-05

Post-graduate training in child and adolescent psychiatry in Japan

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In Japan, child and adolescent psychiatry (CAP) is not an individual specialty; instead, it is considered a psychiatric subspecialty. There exists no uniform training program in CAP, and each teaching hospital determines its own curriculum. As a result, CAP training content and clinical experience varies greatly among hospitals. Instead of a standardized residency program in CAP, the Japanese Society for Child and Adolescent Psychiatry (JSCAP), the biggest academic society in the field, has its own certification system. The training program by JSCAP requires: (1) over 5 years of clinical experience in medicine including over 2 years in general psychiatry and over 3 years in CAP, (2) being a member of this society for more than 5 years, (3) an application form with CV, 4) a list of 30 CAP cases seen in the preceding 3 years, and 5) three case reports (at least one of them must be a case with developmental disorders). The clinician certified by the JSCAP is regarded as a specialist in CAP in Japan. However, its website reports that only 188 clinicians are certified as specialists by JSCAP. Based on the latest data by the Japanese Ministry of Health, Labor and Welfare, the total number of psychiatrists is 14,201 accounting for 5.1 % of all medical doctors (295,049 in total). These data demonstrate that Japan is facing a serious shortfall in its CAP workforce despite increasing social demands and a need to increase the number of clinicians who deal with children's mental health problems. To solve this situation, not only JSCAP, but also the Japanese Society of Psychiatry and Neurology (JSPN) organized a task force and has been providing various opportunities for general psychiatrists to learn about CAP and to enhance their CAP clinical skills by publishing guidelines, making visual teaching materials and organizing training courses.

Keywords: Child and adolescent psychiatry, post-graduate training, clinical education, residency program.

M5-03-01

Validation process of the Spanish AIDA version and psychometric properties in a Spanish school sample

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This presentation is oriented to explain the validation process of the Spanish AIDA version in Spain. The sample obtained in the Pilot test was composed by 28 adolescents aged 12–19 (mean 15.5, SD 2.1), 57.1 % male, with 15 non clinic sample and 13 inpatients. Only one item ($r_{it} = -0.01$) had to be changed after the Pilot test, as we obtained high reliability data not only in discontinuity scale ($\alpha = 0.90$) but also in the Incoherence scale (0.93). Subscales reliabilities were in between 0.75 and 0.87. Five more items had been slightly changed in formulation to improve comprehensibility and/or probability of symptomatic answers based on the statistical coefficients extracted in the item analysis. Once the pilot test was done, and the items required reformulated, we started by obtaining a representative sample. The further validation process is organized in two samples: School sample and Clinical Sample. The School sample is carried out in public and semi-public schools around Barcelona, inviting 690 adolescents and their parents to participate. In addition to the AIDA Spanish version, they also answered to IA-TP (based on describing adjective to asses one's personality) and YSR (Achenbach) to detect psychopathology. In the Clinical Sample we included adolescents attending in-patients Day Hospital and out-patients clinics with a higher than 75 limit tendency on MACI (Millon Personality Test). Results from School sample and first pilot clinical sample are exposed to discuss in deep in the cultural differences. The discussion also permits to deep in adolescent's identity development as well as identity diffusion, walking into DSM-V diagnose criteria.

Keywords: AIDA, identity, validation, questionnaire, Spanish.

M5-03-02

Identity formation and personality disorders in a Mexican sample: a comparative study between adolescents from school, and a juvenile justice system sample

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Background: According to Kernberg, identity diffusion is one of the relevant underlying structures in terms of personality organization for developing psychopathology, especially borderline personality disorder. Therefore, it would be of great importance to differentiate healthy from pathological development already in adolescence. With the questionnaire *AIDA* (Assessment of Identity Development in Adolescence), a reliable and valid self-rating inventory was presented by Goth, Foelsch, Schlueter-Mueller and

Schmeck (2012) to assess pathology-related identity development in healthy and disturbed adolescents. To evaluate the cultural generalizability of theconcept and its applicability in Mexico, in order to make it usable for investigations to understand how identity development is related with social problems, diagnosis and psychotherapy outcome, we contributed to the development of a Spanish culture-specific translation of AIDA and tested its reliability and validity in a Mexican sample.

Methods: A cultural adapted Spanish translation of *AIDA* was developed by an expert panel from Chile, Mexico and Spain in cooperation with the original authors, focusing on content equivalence and comprehensibility by considering specific idioms, life circumstances and "mentality". Participants were 265 students from a public (N = 110) and a private school (N = 155) from 12 to 19 years (Mean 14.15) including 44.9 % boys and 55.1 % girls. Reliability was analyzed by Cronbach's Alpha, construct validity by EFA on item level. We assessed a further privet school (N = 100) and juvenile justice system sample of N = 120 adolescent boys in conflict with law, with *AIDA, MACI (Millon Personality Test), Youth Otcome Questionaire Y–OQ-SR 2.0, and the Diagnostic Interview for Borderlines Revised (Ab-DIB) for adolescent*, displaying different types of behavior problems, and compared their scores to the school sample by *T* tests.

Results: The Spanish version of *AIDA* showed very good psychometric properties in the Mexican sample. The reliability coefficients were excellent for the total scale "Identity Diffusion" with $\alpha = 0.94$, very good for the two primary scales "Discontinuity" and "Incoherence" with $\alpha = 0.85$ and 0.92, and good for the subscales ranging from $\alpha = 0.70$ to 0.83. EFA showed nearly the identical factorial structure as in the German construction sample with one joint factor explaining 25.4 % variance of the items. In line with theory, the AIDA scores differed significantly and remarkable between the students and the conflict sample with mostly high effect sizes for Discontinuity and small to medium effect sizes for Incoherence, displaying higher scores (speaking for pathology) for the "delinquent" boys. The *MACI, Y-O-Q-SR2.0, Ab-Dib*, scores showed significant differences between the samples with high effect sizes.

Conclusion: The AIDA concept of describing "identity integration vs. diffusion" can be assessed in Mexico and is useful to make diagnosis of personality disorders in adolescence.

Keywords: Identity, Questionnaire, Psychometrics, Adolescence, Personality Disorders, Law conflict.

M5-03-03
The psychometric properties of AIDA in Chile and relations between identity and personality development in a Chilean school sample

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The psychometric properties of AIDA in Chile and relations between identity and personality development in a Chilenian school sample.

In the revision of DSM, disorders of identity as an indicator of impaired self-related personality functioning are discussed to be integrated as a central diagnostic criterion for personality disorders. Goth, Foelsch, Schlueter-Mueller and Schmeck (2012) have developed the self-rating questionnaire AIDA (Assessment of Identity Development in Adolescents) for the use in adolescents aged 12–18 years to assess Identity, a highly complex construct that is difficult to define. The aim is to differentiate normal identity from identity crisis and pathology in adolescents.

This presentation is oriented to explain the validation process of the Spanish AIDA version in Chile, University of los Andes and Instituto Medico Schilkrut in Santiago Chile is part of an international group working to cross-culturally validate the AIDA The AIDA will also be compared with the Junior Temperament and Character Inventory (12–18 JTCI R; Goth, Cloninger and Schmeck, 2005), a measure of personality.

The Pilot test with a subsample of N = 204 adolescents provided sufficient scale reliabilities with $\alpha = 0.94$ for the total scale Diffusion, 0.88 for the scale Discontinuity and 0.90 for the scale Incoherence, the subscales lied between 0.63 and 0.83.

The main study phase will be the validation sample for the instruments with a selected, stratified sample of n = 720, male and female students from 7 th and 8th level (equivalent to elementary school) and from 1st through 4th (equivalent to high school) and from three socio-economic levels (High, Medium and Low) in any district of Santiago. The second stage expands the stratified sample to 1,080 students.

Keywords: Aida identity.

M5-03-04
Identity development and psychopathology Part 2

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In the revision of the Diagnostic and Statistical Manual DSM-5 the construct "identity" has been integrated as a central diagnostic criterion for personality disorders. Identity is described as the experience of oneself as unique, with clear boundaries between self and others, a stability of self-esteem and an accuracy of self-appraisal as well as the ability to regulate a range of emotional experiences. The consolidation of identity is one of the most relevant developmental tasks of adolescence, so that the emergence of normal ego identity, identity crises or identity diffusion is seen as the crucial characteristic of normal and pathological personality development. Disturbance of identity results in decreased flexibility and adaptability of functioning in the areas of self-regulation, interpersonal relations, and meaningful productive actions. Another central consequence of identity diffusion is the incapacity, under the influence of a peak affective state, to assess that affective state from the perspective of an integrated sense of self. This goes in line with decreased mentalizing capacities. A great variety of symptoms is associated with disturbances in identity development that can best be summarized under the diagnosis of personality disorder.

Base on a developmental psychopathology approach we will demonstrate the relevance of identity problems in assessing and understanding personality pathology in the new classification system of DSM-5 with a case example of an adolescent with severe personality disorder. This talk will lay the theoretical foundation for the rational of identity assessment in adolescents that is demonstrated in the symposium from different cultural backgrounds.

Keywords: Developmental psychopathology, identity, personality disorders, DSM-5, assessment.

M5-03-05

Identity diffusion in Brazilian adolescent victims of violence and offenders: diagnostic considerations and bases for intervention

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This study presents the validation process of the Portuguese AIDA version in Brazil. The sample obtained in the Pilot test was composed by 95 adolescents, being male 42 (44.7 %), female N = 52 (55.3 %), age 11–17 (Mean 13.22, SD 1.6), controls N = 73 (77.7 %) from the school population and victims of intrafamily violence N = 21 (22.3 %). The results of pilot study showed that except one subscale, all reliabilities are satisfying with scale reliabilities $\alpha = .93$ for the total Diffusion scale, 0.76 for Discontinuity scale and .93 for the Incoherence scale. As a result, 16 out of 58 items had to be changed and reformulated in order to capture the equivalent content with different wording in the Brazilian culture. In the main test, we invited 500 adolescents and their parents from school population (from private and public schools) to participate. Additionally two clinical samples were obtained: 100 adolescent victims of domestic violence, attended in specialized institutions and 100 offenders attended in a NOG. All adolescents also responded to the inventories: *Defense Style Questionaire* (DSQ-40) and *Strengths and Difficulties Questionnaire* (SDQ), both adapted and validated for the Brazilian population to compare with the results and verify defense mechanisms and the strengths and weaknesses of adolescents, that are related to development of Identity. The results of school population, the pilot sample and clinical groups are presented and cultural differences are discussed in depth. At the same time, the results prove the validity of AIDA. The victims of violence need to develop more positive defenses, and strong models of identification. They feel a lack of affect and they reveal more Identity Diffusion than other groups. Additional considerations are made about the offenders group. This study bring contributions to the intervention in adolescent clinical samples.

Keywords: Adolescents. Identity, intrafamily violence, offenders.

M5-04-01

Sex chromosome anomalies: 2 cases which suggest that sex chromosomes may carry risk genes for ADHD and for autism

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A case of autism in a girl who was found to have the karotype 47, XXX is described. A family pedigree shows that a half brother has Asperger's syndrome. It is possible that this family has an X chromosome with risk genes for autism, with more symptoms in the girl with triploidy of the X chromosome than in the boy with one X chromosome. The possibility of an association between triploidy of the X chromosome and autism is proposed. A case of a boy with ADHD who has a major de-novo Y chromosome abnormality consisting of a deletion of the long arm and duplication of the short arm is presented. The possibility that the Y chromosomal abnormality is causing the ADHD syndrome in this boy is discussed. Evidence to support the theory that the sex chromosomes may contain risk genes for ADHD are that (a) ADHD is more common in boys than in girls, (b) the transmission of some genes associated with ADHD may occur preferentially from fathers rather than from mothers, and (c) ADHD is more common in children with XYY syndrome and Turner's syndrome than in other children.

Keywords: Attention Deficit Hyperactivity Disorder, Autism, sex chromosomes.

M5-04-02

A clinical case of Pervasive Refusal Syndrome

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Aims of Presentation: 1. To highlight the diagnostic and management challenges posed by this young girl and also the ethical dilemmas experienced by professionals. 2. To give a parent's perspective on the disorder and its management.

Method: 1. The author will describe the case history of a young girl from a rural background who initially presented with somatic symptoms and eating difficulties which rapidly evolved into PRS with severe weight loss, requiring nasogastric feeding for 4 months. Establishing a therapeutic relationship with the patient and her family has been challenging in the light of their previous experience of illness and healthcare. A flexible, multi disciplinary management plan aimed at preventing deterioration of the patient's physical well being and ultimately, promoting recovery needed to be devised, while still maintaining her trust and engagement. An overview of the current thinking on treatment of PRS will be provided along with our experience thereof.

2. A recorded interview with parents will be shown, during which they describe their experience dealing with this disorder.

Results: Life threatening psychological disorders are relatively rare and pose particular challenges to professionals and parents, particularly regarding the issue of consent. Persuading and sometimes coercing a young person to co operate or simply comply with certain procedures runs counter to many of professionals' core values, particularly when symptoms are considered "all in the mind" Navigating these waters requires much time and discussion, scarce resources on a busy paediatric ward. Working effectively requires the psychiatric liaison team to address the whole system in this situation. As noted previously with other children with PRS, our patient engaged more readily with less "medical" members of staff e.g. teachers and play therapist and we used this to advantage. Many different treatment approaches have been tried by us with varying degrees of success and though significantly improved, our patient has not fully recovered as yet. Identifying motivational factors has had a crucial role in facilitating change. Focussing on positive aims, such as keeping up with schoolwork and learning anxiety-management strategies e.g. relaxation, mindfulness and verbalizing were useful.

Conclusions: Pervasive Refusal Syndrome is difficult to categorize but tends to be placed alongside eating disorders. In this case considerable progress has been made to date using a multi-modal, systemic approach, borrowing heavily from The Maudsley Family based treatment of Anorexia Nervosa, but tailored to suit this particular young person's needs.

Keywords: Pervasive Refusal Syndrome, diagnostic and management challenges.

M5-04-03
Intriguing Clinical Cases

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and University College Dublin, Department for Child and Adolescent
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This symposium hosts a collection of clinical cases with various diagnostic and management challenges. It hopes to allow participants to refresh their critical diagnostic and therapeutic skills by an in-depth presentation of 4 complex clinical cases, each presenting different diagnostic, and therapeutic approaches. The discussant will bring an American over view to the presentations thus allowing the participants to consider how their own conceptualisation and treatment plan reflects those of the presenters and discussants from different countries.

Presenters:

1. Dr. Therese Thornton, Dublin will introduce the concept of the diagnosis of Pervasive Refusal Syndrome and present a clinical case of an 11 year old girl with severe and protracted symptoms spanning a number of domains. She will give a parent's perspective on the disorder and its management.
2. Dr. Aisling Mulligan, will present two separate cases, each with sex chromosome anomalies and review the evidence to support the theory that the sex chromosomes may contain risk genes for ADHD and autism.
3. Dr. Yulia Zyranova, will present a case study of a 14-year old boy with challenging behaviour in the context of Conduct Disorder and a diagnosis of Early-onset psychosis. She will consider the effectiveness of an individualised, neuro-behavioural approach in a specialised residential setting.
4. Dr. Vincent Guinchat, will present on causes for severe challenging behaviours among hospitalized adolescents with autism.
5. Dr. Elaine Purcell, will provide an overview to the sleep disorders common in all paediatric populations including psychiatric patients; with particular focus on Obstructive Sleep Apnoea, Narcolepsy, Body-Clock Issues and behavioral problems.
6. Dr. David McNamara will present.

1. Discussant. Dr. Dhirk Dhosce, US.

Keywords: Clinical cases, autism, pervasive refusal syndrome, ADHD, sleep, psychosis.

M5-04-04
A brief overview of paediatric sleep disorders

Elaine Purcell

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Objective: A brief introduction to the sleep disorders common in all paediatric populations including psychiatric patients; with particular focus on Obstructive Sleep Apnoea, Narcolepsy, Body-Clock Issues and behavioral problems. Clinical symptoms to look out for and pitfalls to miss…..

Abstract: Sleep disorders in children are relatively widespread but under-recognized and can contribute significantly to the burden of psychiatric illness. Sleep disorders can cause weight gain, altered mood, attention deficit, poor school performance, and in teenagers in where sleep deprivation is rife, impaired driving safety. In will review some of the pertinent symptoms to screen for, when taking a sleep history; as well as a brief introduction to the different sleep disorders themselves. Paediatric Obstructive Sleep Apnoea (OSA):

OSA affects 4–5 % of all children. Intermittent airway collapse leads to cessation of breathing (apnoeas), disturbing sleep and contributing to daytime sleepiness or conversely hyperactivity and attention-deficit (often misdiagnosed as ADHD). Consequences of untreated OSA in children include stunted growth, mood impairment, reduced academic performance and ultimately cardiovascular disease.

Narcolepsy: Recently; there has been a surge in cases of Narcolepsy as a consequence of H1N1 Pandemerix Vaccination (13-fold increased risk of developing Narcolepsy in children and adolescents in Ireland). Symptoms include sleepiness, cataplexy, hallucinations, sleep paralysis, irritability, weight gain, depression. These patients are often mistakenly referred to psychiatry for work-up of a presumed mood disorder.

Delayed Sleep Phase Syndrome: This is a form of circadian rhythm disturbance, extremely prevalent in adolescents and young adults; particularly in patients with Autistic Spectrum Disorder. They have great difficulty falling asleep until the early hours of the morning with resultant extreme difficulty getting up for school. Treatment involves behavioral modification and melatonin supplementation.

Insomnia: There are many different types of insomnia; with treatment depending on the underlying cause. In young children insomnia is largely characterized by "Limit Setting Behavioral Insomnia of Childhood" (bedtime resistance) and "Sleep-Onset Association type" where the child needs a certain toy/parent to be able to fall asleep. Behavioral programmes of gradual extinction are very successful but require motivation and discipline on the parent's and patient's part.

Keywords: Sleep, Obstructive Sleep Apnoea, Narcolepsy, Circadian Rhythm Disorders, Insomnia.

M5-04-05
Causes for severe challenging behaviours among hospitalized adolescents with autism

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Causes for severe challenging behaviors among hospitalized adolescents with autism.

Background: During adolescence, some individuals with autism engage in severe disruptive behaviors such as aggression toward self or others, tantrums, hyperactivity or severe repetitive behaviors.

Objectives: We aimed to assess risks factors associated with these very acute states and regression in adolescents with autism hospitalized for severe disruptive behaviors in a psychiatric intensive care unit.

Methods: We systematically collected data describing socio-demographic characteristics, clinical variable, associated organic conditions, etiologic diagnosis of the episode and treatments.

Results: Results concerning 60 adolescents are presented. Among the patients, almost all of them exhibited severe autistic symptoms and intellectual disability, and two-third had no functional verbal language. Suspected risk factors associated with disruptive behaviour disorder included adjustment disorder, lack of adequate therapeutic or

educational management, various psychiatric disorders (anxious disorders, depression, catatonia…), uncontrolled seizures and painful comorbid conditions.

Conclusion: Disruptive behaviors among adolescents with autism may stem from diverse risk factors. A great attention should be given to psychiatric or somatic diseases which require specific treatment. The management of the behavioural changer requires a multidisciplinary functional approach.

Keywords: Autism, aggression, disruptive behaviours, hospitalized adolescents.

M5-04-06
A Movement Disorder of Sorts?

David McNamara

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Objectives:

1. Presentation of a 16 year old girl, who presented with a complex movement disorder, admitted to an inpatient setting from CAMHS, having first presented to a general hospital and underwent physical investigations.
2. The unveiling of a diagnostic formulation and the pathway to same.
3. Conversion disorder as a diagnostic formulation.
4. Questions for the future and psychological wellbeing for the individual.

Method:

1 Case presentation by Dr. David McNamara, Consultant.

Presentation, Investigations, Course in hospital, Diagnosis.

Format: PowerPoint, integrating video clips, demonstrating salient features.

Duration 30 min.

The Following gives a very brief overview of the case.

The case involves a 16 year girl, 2nd in a family of four, SEG 4, who presented to her local hospital complaining of generalised pain and constipation. She was "extensively investigated", deemed medically well and referred to the Liaison Psychiatric service and conceptualised as having a conversion disorder. A referral was made to the local CAMHS, and an antidepressant and psychotherapy were instituted. During this time, she developed an acute febrile illness which lasted 2 weeks, which was presumed viral in origin.

Her overall condition deteriorated and admission to an acute inpatient setting was sought.

Her overall presentation was striking, in terms of a presentation of an unusual movement disorder, which was painful, exhausting, and present for 22 h per day for the first 2 weeks of admission.

Two avenues of approach were pursued simultaneously, an organic road for consideration and a psychotherapeutic approach.

She deteriorated in hospital, in terms of overall level of functioning and initially her diagnostic formulation was still evolving. Laboratory results were confounding and a Neurology opinion suggested transfer under their care.

Psychotherapeutically, she presented with an air of La Belle Indifference, and alluded to stressors in her world and conveyed indirect communications of a sexual theme in her history; she eventually made a disclosure of having engaged in sexual acts and now felt coerced and unable to negotiate a cessation of these acts.

Her recovery and the script for same were devised by the patient, outlining in time frames, her predicted recovery, to which she adhered.

Her diagnosis was conceptualised as a Conversion Disorder with inexplicable abnormal laboratory results. The possibility of a Conversion Disorder coexisting with an infectious insult was considered.

Keywords: Conversion disorder; complex movement disorder.

M5-05
Frustrated by endless team discussions? Try a different sort of talk

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Context: Opportunities for multi-disciplinary Team (MDT) members to meet and share resources around cases are vital but resource intensive and use of time needs to be carefully managed. In the room, in the moment, engaged in assessment, liaison or therapeutic work we are engaging in practice which is heavily dependent on use of our intuitive knowledge. Yet, in team discussions there is seldom opportunity to for focused practice and the focus on intellectual rather than intuitive knowledge.

Objectives: Engaging in this workshop will involve experiential learning in structured approaches to enable bringing forward intuitive clinical wisdom of team members. The focus of these processes is on enhancing team resources in moving intuitive and theoretical knowledge into practice to enhance quality of clinical work.

Method: This is an active workshop where participants will be invited to engage in a series of structured group conversations. A brief theoretical rationale for each will be given. Listed from the least to the most complex, the structured activities include: a round where each person speaks in turn, creating a physical continuum in the room, recounting of a personal experience with resonance for another clinician's experience, and structured role play where the clinician takes up the role of the person they are struggling to work with and the members of the group are invited to contribute potential responses in a 'stuck' therapeutic, assessment or liaison conversation. This last activity, in particular, focuses on moving out of 'thinking about' to 'doing' and engaging in a 'less than perfect' exploratory orientation to showing practice. It enacts the reality that there are many possibilities in engaging in clinical work and team members can build on each other's ideas. Workshop participants are invited to bring de-identified clinical scenarios to use.

Conclusion: Workshop participants will leave with options for focusing discussion in clinical teams to draw on MDT skills and knowledge to open possibilities for enriching clinical practice.

Keywords: Multidisciplinary team, reflective practice, supervision.

M5-06-01
Feasibility and outcome of public education campaign on early intervention in psychosis: The DETECT experience

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Background: Psychotic disorders are leading cause of morbidity in young people, typically occurring in adolescence and early adulthood with eighty per cent of first episodes of psychosis occur between the ages of 16 and 30 years. Young people with psychotic disorders experience lengthy delays in receipt of effective treatment. Prolonged duration of untreated psychosis (DUP) is associated with poorer outcome. It was suggested that lack of knowledge and skills operate as determinant barriers in help-seeking for individuals with psychosis, their families and the community in general. Public education could constitute effective early intervention (EI) strategy to reduce these delays.

The DETECT Early Intervention Service was set in 2006 to as the first early intervention in psychosis service in Ireland. It covers a catchment area with a population of 375,000. The service resulted in a reduction of DUP from 19 months in 2006 to 9 months in 2011. The service runs a number of educational programmes both to health professionals, non-health professionals and general public.

Aims: The purpose of this project was to design, implement and validate a curriculum on early intervention in psychosis for Youth Workers (YW).

Method: A curriculum on EI in psychosis was designed and delivered through 1 day workshops. Youth workers participated at all phases of curriculum design and course delivery.

A vignette-based assessment tool was developed and validated to measure symptoms recognition, problems identification and help seeking behaviour and included a mixture of depression, anxiety and psychosis scenarios. Each vignette is followed by open questions on diagnosis, symptoms and on how to help the young person. Confidence levels in symptom identification, case management skills and social distancing were measured using a Likert scale questionnaire.

Participant YW who attended the training underwent assessments at baseline, immediately after training and 3 months after training. Data was analyzed using SPSS V 17.

Results: Compared with baseline, training programme resulted in statistically significant improvement in symptoms recognition skills and problem identification for vignettes on psychosis, desirable changes in help seeking behaviours and increased in participants' levels of confidence and reduction in social distancing. These desired outcomes were found to be sustained over 3 months period, mostly to statistical significance levels ($p < 0.05$).

Conclusion: The training course improved case recognition skills and help-seeking behaviour and resulted in reduction in social distancing as an indicator of stigma.

Keywords: Youth workers; early intervention; psychosis.

M5-06-02

The impact of a specialized inpatient and daypatient group program on clinical outcome in older adolescents and young adults

Patrick McCrossan, Alan Ryan, Mary Connellan, Paddy Power

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Introduction: Adolescence and early adulthood is a critical time for personal development. It is also the age when three quarters of mental illnesses develop. The Young Adult Programme (YAP) based at St. Patricks University Hospital Dublin, is a group based day programme especially designed to meet the needs of younger people aged 18–25. YAP sessions are provided by a multidisciplinary team as part of the Young Adult Service. The programme aims to help one develop a better understanding of ones mental health problems, ways of resolving them, and receiving support from others with similar experiences.

Objective: To examine the effectiveness of participation in YAP for young adults with mental illness. To determine whether participation in particular aspects of the programme prove more beneficial and what factors might be associated with outcome.

Method: All patients enrolled in YAP between 01/09/11–31/08/12 were included in the study. Each patient was assessed using the HONOS and GAF rating scale before beginning the programme and after discharge in order to evaluate improvement. The frequency of attendance at individual group sessions was recorded. Patient and illness variables were also recorded e.g. demographics, diagnosis.

Results: A total of 101 service users were in enrolled in YAP during this 12 month period. 26 service users could not be used for analysis, as they did not have a complete data set, mostly due to failure to attend for discharge HONOS/GAF ratings.

Using a paired sample t-test, there is a significant reduction in HONOS: Mean diff = 1.2, (95 % CI = 0.95–1.4), $p < 0.001$. Using a paired sample t-test, there is a significant increase in GAF: Mean diff = 9.7, (95 % CI = 8.0–11.5), $p < 0.001$. Improvements in HONOS and GAF scores is significantly correlated with better attendance at the programme ($Rs = + 0.25$, $p = 0.03$ and $Rs = + 0.37$, $p = 0.01$ respectively).

Conclusion: More attendance at YAP sessions correlates with better improvement in both HONOS and GAF rating scores. Attending YAP is of benefit to young adults with mental health illness.

Keywords: Youth mental health, youth programs, service evaluation.

M5-06-03

Is sexual orientation associated with increased risk of psychiatric ill-health? An analysis from an Irish cohort study from adolescence to young adulthood

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Background: It is reported that individuals identifying as LGB (lesbian, gay or bisexual) may be more at risk of suicidal thoughts and behaviours, deliberate self-harm, illicit drug use, alcohol misuse and mental health disorders. We aimed to analyse these issues in a North Dublin based cohort study.

Method: Our study population was a sample of 169 young people aged 19–23 (mean age = 20.8 years) from North Dublin. They had previously been interviewed at age 13/14 years and 80 % had been traced and re-interviewed. All participants were interviewed using the SCID interview schedule, the Stressful Life Events Schedule and the McMaster Family Assessment Device General Functioning Score at

CT2. At CT1 the K-SADS-PL schedule was used instead of the SCID, the Stressful Life Events Schedule was not used, the Scale of Suicide Intent was used, and the Scale of Suicidal Ideation was used. We used logistic regression analysis and controlled for sex, age and socio-economic status.

Results: 6 % of the sample identified themselves as bisexual or homosexual orientation during the Stressful Life Events Schedule interview. Our results show the following significant associations between sexual orientation and psychiatric disorders: Deliberate Self Harm (OR = 19.58***, CI = 3.5–109.63); suicidal ideation (OR = 9.44**, CI = 1.66–53.63 P < 0.01), and lifetime contact with psychiatric services (OR = 7.41*, CI = 1.36–40.41). Significant odds in disparities in mental health outcomes between the heterosexual and non-heterosexual groups also emerged at Challenging Times 1 when the participants were in early adolescence.

Conclusion: These findings indicate a significant excess of psychiatric disorder among young adult of bisexual or homosexual orientation. We find that disparities develop young in the teenage years and this in particular should be area of future research focus. The findings for suicidal thoughts and self-harm are also very concerning. More research in this area, as well as clinical, policy research and intervention development needs to be carried out.

Keywords: Youth Mental Health, sexuality, psychiatric epidemiology.

M5-06-04

12 Year clinical and functional outcome of early-onset psychosis

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Introduction: The early onset of psychosis has long been considered a poor prognostic indicator, with many studies reporting worse outcome for those patients who develop psychosis in childhood. A recent study from a first episode psychosis unit reported fewer symptoms and improved functioning in early- vs. late-onset schizophrenia at 7 year follow-up. These results called into question the accepted wisdom regarding early-onset schizophrenia. The aim of this study was to compare the outcome between patients with early- and adult-onset psychosis longitudinally across several time points.

Methods: We examined the outcome of 166 patients with first-episode psychosis at 4 years, 8 years, and 12 years. We compared outcome measures between patients with early- (defined as the onset of symptoms before the 18th birthday) and adult-onset psychosis. Outcomes included clinical measures (positive and negative symptom scale-PANSS) and measures of functioning (quality of life scale-QLS and global assessment of functioning-GAF). Between-group comparisons over time were made using split-plot ANOVA (SPANOVA). Additionally, as a number of recent studies have identified 22 years as a potentially meaningful cut-off age for early-onset psychosis, we repeated the above comparisons using this cut-off point. We also examined the correlation between age-at-onset as a continuous variable and outcome at the 3 time points.

Results: Using 18 years as the cut-off age, 17 (10 %) of the sample were categorised as having early-onset psychosis. The early-onset group had a significantly longer DUP (26 months vs. 12 months; p = 0.02). Analysis of the follow-up data, controlling for DUP, revealed that there were significant interaction effects between time and early- vs. adult-onset in terms of GAF and total PANSS score. Using 22 years as the cut-off age, 72 (43 %) of the sample were categorised as having early-onset psychosis. The early-onset group scored significantly higher on the premorbid adjustment scale at baseline (12 vs. 10; p = 0.02). The results of the analysis of the outcome data were similar, with a significant interaction effect between time and group membership in terms of QLS, and a significant between-group effect in terms of GAF and total PANSS score. Age-at-onset as a continuous variable correlated significantly with outcomes measures at 4 year and 8 year, but not at 12 year follow-up.

Conclusions: This study confirms past findings of higher symptom burden at follow-up among patients who initially presented with early-onset psychosis. Examination of SPANOVA plots confirms that early- and adult-onset group outcome is divergent through 4 and 8 year follow-up with the early-onset group experiencing poorer quality of life, functioning, and symptom burden. This between-group difference is not evident at 12 year follow-up, at which the outcome converges between the 2 groups. These findings suggest that the poorer prognosis conferred by earlier onset of psychotic illness may not persist throughout an individual's lifetime.

Keywords: Schizophrenia; Early-onset; Childhood-onset; Outcome.

M5-06-05

Evaluation of a young adult (group) programme in terms of clinical outcome and patient satisfaction

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Objective: Despite notable advances to date, young adulthood still presents one of the greatest mental health challenges to services, in terms of unmet clinical need and developmental issues. The current study sought to carry out a pilot evaluation of a youth-tailored group based day programme.

Method: A sample of inpatients and day patients (N = 31, 18–25 years, 17:14 males: females) enrolled within a youth-tailored group recovery program (lasting several weeks) were assessed in terms of clinical health, mental health literacy and internalized stigma before and after attending the intervention. Secondly, a qualitative exploration, in relation to group environment and overall satisfaction, was conducted.

Results: Significant levels of symptom remission were achieved for clinical health (as assessed by Health of Nation Outcome Scale, Global Assessment of Functioning Scale, Rosenberg Self-esteem Scale and Duke Health Profile) and partial improvements for internalized stigma (Internalized Stigma of Mental Illness Scale). Furthermore significant mental health literacy gains were identified. On the whole, no significant group differences were found in terms of gender, diagnosis or perceived group environment. Thematic analysis provided further support for clinical improvement and for the use of peer groups within a youth-tailored treatment approach.

Conclusion: Results supported previous research, which identified significant improvements in clinical outcome and stigma, within group based recovery programmes tailored to the needs of young adults with mental illness. Further research is required to identify the components of the programme which impacted most. This may help to refine and promote the development of youth specific interventions.

Keywords: Youth Mental Health.

M5-06-06
'A way forward, young people and parent's perspectives of Irish youth mental health services'

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Prior to commencing this study the evidence suggested that young Irish service users had not been adequately consulted about their experiences of youth mental health services in Ireland to date. Furthermore there appeared to be a lack of consultation with young people in general about their views/attitudes/experiences of Irish youth mental health services. 'The Way Forward' is a nationwide qualitative research study carried out in Ireland between 2009 and 2012. It looked at exploring young people's views of Irish Mental Health Services. The study involved a series of focus groups which consisted of different cohorts of stakeholders in Irish Mental Health Services. The groups consisted of adolescents and young adults service users who were current consumers or graduates of Irish mental health services, also parents of service users who had direct experience of the service and a finally a selection of young people in transition year who had no direct involvement with mental health services. The focus groups explored themes such as the service user and parent's perspectives of their personal experiences of accessing mental health care in Irish services. It also asked what young people need from mental health services and explored what are their experiences of possible barriers that inhibit accessing services. It also examined if there were various enablers that existed which facilitated successful engagement with Irish mental health services. The data that was collected in the focus groups was subject to a thematic analysis and the results were compiled using the N-Vivo software. The findings revealed that issues of stigma in mental health remain an obstacle and discourage help seeking in Irish Mental Health services. The findings also indicated that the voice of young people needs to be developed in the context of further service development. It is the goal of the research team that these findings will be used to develop recommendations to be incorporated in the model of mental health service provision to young people.

Keywords: Stigma youth mental health.

M5-06-07
An adolescent drug and alcohol treatment programme: who attends and what are their outcomes?

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Background: Substance use disorders typically commence in adolescence, and often present with comorbid mental health problems. Specialist adolescent substance use services are under-developed in Europe. We sought to examine outcome in a group of adolescents who attended a child psychiatry led, specialist outpatient drug and alcohol treatment service.

Methods: We measured substance use at baseline and follow-up with the ASSIST. The SOCRATES questionnaire was use to measure baseline motivation. The Becks Youth Inventory (BYI) was utilised to examine mental health symptoms at baseline and at follow-up. The treatment intervention involved motivational interviewing, cognitive therapy and family therapy. Follow-up occurred 3 months after treatment entry.

Results: We assessed 108 adolescents and interviewed 87 (81 %) at follow-up. The group was 78 % male and their mean age was 16.4 years. 67 % were still in education. Polysubstance use was the norm with only 12 % of clients reporting use of a single substance in the past month, and 43 % reporting use of at least three substances. The most common primary substances were cannabis (51 %), alcohol (25 %) and benzodiazepines (8 %). Motivation among problematic cannabis users was poor at treatment entry, with 86 % having low or very low "problem recognition". The BYI indicated problems of at least moderate severity in Self Concept, Depression, Anxiety, Anger and Disruptive Behaviour in 47, 33, 32, 29 and 52 % respectively. Among those with a baseline cannabis use disorder, there was significant fall in mean days of use in the past month at 3 month follow-up, from 22 day to 16 days (T Test, $p < 0.001$). However, only 11 % were cannabis abstinent. A further 36 % were reliably improved. There were statistically significant improvements in comorbid depressive ($p < 0.05$), anxiety ($p < 0.01$) and anger symptoms ($p < 0.01$), and self concept also improved ($p < 0.05$).

Conclusion: Adolescents with substance use disorders typically abuse multiple substances and are often poorly motivated upon treatment entry. This outpatient treatment program achieved modest improvements in substance use, which are similar to those reported in international studies. Comorbid mental health symptoms were common, and these improved following this multidisciplinary treatment intervention.

Keywords: Substance use disorders, treatment outcome, cannabis, depression, motivation.

M5-06-08
Youth mental health: what are the needs of older adolescents and young adults and do they benefit from specific youth mental health services?

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The period of older adolescence and young adulthood presents a particular challenge for mental health services. It's the age by which most forms of mental illness present and it's when the opportunity for early intervention is greatest. Yet the needs of these young adults are still poorly understood and traditional adult services are not well adapted to provide specifically for their care. Youth mental health services may be one way of addressing these difficulties. Yet there are few studies of the effectiveness of these services.

This symposium will highlight some of the important mental health needs of older adolescents and young adults. It will also include evaluations of services specially designed for young people.

Youth mental health services are being hailed as a solution to the difficulties young people face with traditional services. But without an evidence base it is difficult to support their introduction. We hope to add to the growing evidence in their favour with four studies identifying the young people's specific mental health needs and four studies evaluating specialised youth mental health services in Ireland.

The first four studies cover areas such as: the experiences and expectations of young people and parents of mental health services in Ireland; the prevalence of mental health conditions among young people with bisexual or homosexual orientation; the additional difficulties faced by psychosis patients with a younger age of onset; the needs of young people and parents for online mental health resources.

The last four studies evaluate different youth mental health services. These include the impact of a training programme for youth workers in early intervention in psychosis; an evaluation of a specialised addictions service for young people in Dublin; a study of the impact of an inpatient and daypatient youth mental health group program on clinical outcomes; and finally, an analysis of the factors associated with outcomes in a specialised youth mental health program.

Keywords: Youth mental health, needs, models and heath service evaluation.

M5-07

Music 101: from emos to juggalos: examining the role of music in the lives of children and adolescents

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Objective: To examine and describe the ways that music can be used in the assessment and treatment of children and adolescents. To familiarize practitioners with how music can be used as an effective form of play—helping their patients address difficult problems through displacement. To provide practitioners with an up to date look at today's current music genres, trends, and popular artists in order to help them improve their ability to build rapport with their clients and gain some insight into the role that music plays in their lives as well as how their clients musical choices can impact their moods and help them manage their mood states.

Background: Children and adolescents spend a considerable amount of their daily lives listening to music and it has long played an important role in their identity development—establishing autonomy, forming peer relationships, finding new role models, and establishing one's identity by trying on these new roles. Studies have shown the various ways that music can affect the lives of adolescents during these stages, at times negative (aggression, suicide), at times positive (finding a sense of self). Music can also be seen as a form of play allowing children and adolescents to work through their problems and feelings through displacement. And because of music's substantial presence in the world of children and adolescents it is important to know about the artists, genres, and trends that attract and influence them.

Methods: Through the presentation of music clips and videos, practitioners will be able to gain a clearer understanding of how music is experienced and used by children and adolescents. This experience is reinforced by the viewing of snapshots of popular artists of today, as well as the trends they set so that practitioners can become familiar with the different cultures seen in music today and their influence in the world of their clients with regards to identity development and mood management.

Results: Participants will leave this workshop with first hand knowledge of the latest trends and trendsetters in the music industry today and apply this knowledge in their practice, building rapport and using music therapeutically in treatment.

Conclusions: Understanding the world of our child and adolescent clients is crucial to their treatment and development and using music which is an integral part of their every day lives is a great way of doing so. It is a fun and interesting way to engage young people, opening up the doors of communication for practitioners to help them.

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Keywords: Music, Therapy.

M5-08-01

Family violence and trauma during periods of psychosocial crisis

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The present financial crisis in Greece has caused a reduction in income, high unemployment and a generalized uncertainty concerning the future. On a psychological level it results in a crisis of values and increased risk of anxiety and depressive disorders. Adults depending on their personality traits and their psychological vulnerability have serious difficulties responding to their parental role. The main areas in which these difficulties became prominent are their inability to limit their child's behavior and the occurrence of domestic violence. Limits are indispensable not only for a secure family life but also for the structuring of child's psyche which requires strong and reliable parents. The disobedient child's behavior and their lack of respect for limits lead the parents to despair. Parents with low self-esteem and low frustration tolerance face difficulties in earning their children's respect and acceptance. The problem grows in adolescence, the critical period of challenging parental power. In times of crisis violence occurs more easily on both a social and family level. Children are the easiest and most direct victims of physical and psychological abuse. It is well documented that strict penalties and corporal punishment have exactly the opposite effect from what is expected. Children who have been punished severely in the long term show behavioral disorders and more aggressive behavior than children who have received more indulgent treatment. Furthermore the violence that erupts between parents also affects children. Phobic or post-traumatic stress disorders may occur in young children who were witnesses to scenes of domestic violence. The intergenerational transmission of violence is discussed with psychodynamic formulations but also with the molecular and cellular mechanisms through which the effect of environmental stress is imprinted on the brain. In conclusion, the present financial crisis may have repercussions in both the parental functioning and the mental health of children.

Keywords: Trauma, crisis.

M5-08-02

The impact of financial crisis on mental health of adolescents in contemporary Greece

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The European socio-economic crisis beginning in 2008 has a significant impact on citizens' physical and mental health. Although the impact of the crisis is by no means uniform across the European Union (EU), evidence suggests that children, adolescents and families are being disproportionally affected. Before the economic crisis, 20 % of children and adolescents within the EU lived at of risk of poverty. Greece has been deeply affected by this crisis. In adults unemployment has risen from 6.6 %, in 2008 to 22 %, in 2011, while youth unemployment rose from 18.6 % to 40.1 %. To finance its debts Greece had to borrow from the International Monetary Fund and Eurozone partners, under strict conditions that included drastic curtailing of government spending. As a result, there were cuts in social, health, and mental health care spending. The global economic and financial crisis has a severe impact on the daily lives of children and adolescents. Consequences are multiple: absolute poverty levels are on the rise, adolescents and young adults lack job prospects while economic strain affects family relationships and parents' physical and mental health. According to recent data there has been an increase in suicide and attempted suicide rates, in violence and homicide, in HIV infected people and heroin users in adult population. Adolescent's overall emotional well-being and mental health is also being affected by the crisis. In our service – Athens Adolescent Unit of the Hellenic Center for Mental Health and Research– we are increasingly faced with phenomena leading to psychosocial dysfunction and manifestations of psychopathology in adolescents such as: an increase of suicidal, aggressive and delinquent behaviour, an increased use of legal and illegal addictive substances, school refusal, bullying and remarkable lack of parental capacity to support their children during this critical developmental transition from adolescence to adulthood. Under the current circumstances adolescents represent a particularly vulnerable population group. For every country in the midst of recession protecting high risk groups is a priority. In this context some important challenges have to be faced: including child and adolescent mental health among the priorities in health policies, prevent fragmentation and weakening of mental health system, respond to the new mental health problems, revising national mental health plans to strengthen early intervention and prevention services for families and adolescents focusing on main priorities (suicide, depression, bullying) to protect and promote adolescent mental health and well-being.

Keywords: Financial Crisis, Adolescent Mental Health.

M5-08-03

Intersectorial cooperation in facing child abuse and maltreatment in Serbia: challenges and possible solutions

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Civil society initiatives have successfully advocated the national government to set up a national body for coordinating and overseeing the implementation of the National Strategy for the Protection of Children against Violence and its respect Action Plan in Serbia. However, there is no coordination mechanism at the national level in Serbia, the one that would coordinate and monitor activities undertaken on prevention of violence against children. The civil society is identified as an actor capable of influencing the Government to produce required results. The first step would be to identify what the national coordination is needed for. The Government should be assembling such a body and deal with it from that level. Representatives from all relevant sectors should be encompassed and all their respective roles need to be clearly assigned. The assigned body should only be dealing with this topic and nothing else and it should report to the Government on its activities and achievements (e.g. three people who would be in close cooperation with the ministry and focused only on cases of violence against children). A good model of the coordination body is the one on social inclusion protection, though this model is not necessary representative for this topic, as the body should not be dealing with individual cases. It has been recognised that a national body on children should exist. To begin with, it would be good if all ministries would assign their coordinators. However, in practice things do not function like this. The current staff members should not be additionally burdened with yet another task, but should be able to deal with this full time. Because of that General and Special Protocols for the Protection of Children from Abuse and Neglect and the accompanying Handbooks applied in four main cities by social welfare, education and health systems. It has been planned to develop an intersectoral cooperation in these 4 cities. Primarily, there should be working groups assembled in all four cities, which will, subsequently establish the intersectoral cooperation. The working groups themselves need to define the mechanisms to be used/functional. One period of time should be designated for the supervision of work of the working groups. There should be a centre that coordinates the intersectoral work.

Keywords: Child abuse, intersectorial cooperation.

M5-08-04

Psychosocial crises and mental health in South East Europe

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The South- East Europe countries since 90 are under constant major psychosocial changes. In all cases a need for rapid and abrupt adaptation to the new situation is imperative and in many cases this goes in parallel with various forms of violence. Aggressiveness shapes this period of transition and a better understanding of its impact to mental health of the individuals and more specific to psycho-development of the children and adolescents is necessary for the implementation of preventive, diagnostic and therapeutic interventions.

The aim of this symposium is to present data from Serbia, Bulgaria and Greece concerning major psychosocial crises and their impact on children's and adolescents' mental health. During periods of crisis, when violence prevails on both a social and family level, children are more possible to be exposed to somatic and psychological maltreatment. Evidences concerning child abuse and maltreatment in Serbia and Bulgaria will be presented and will be related to social and family violence which occurs during major socio-economic changes. Also evidences from domestic and family violence from Greece will be explored in relation to the current financial crisis and a focus will be given in adolescents' psychopathology.

Additionally will be reported changes in the provision of mental health services which happened in every different country and they will be compared on their similarities and differences.

Finally similar evidences from the different countries will be discussed in order to be explored effective ways of intervention in all levels of prevention.

Keywords: Crisis, psychosocial, children's maltreatment.

M5-08-05

Child abuse and neglect in school-aged children in Bulgaria. Results from BECAN project

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In the recent years child abuse and neglect becomes a serious problem of the public health.

Social economic crisis impact deeply the mental health of children and adolescents, and deteriorated parent–child interaction. The project "Balkan epidemiological study on child abuse and neglect" (BECAN) combines the efforts of researchers from 9 Balkan countries, coordinated by the Institute of Child Health, Athens, Greece. One of the aim of the project is to study prevalence and incidence of child abuse and neglect in school-aged children (11, 13, and 16 year-olds children, attended school), followed the same procedure in all involved countries. This allows to compare the results at national (different regions) and Balkan levels. The aim of the paper is to present the results of the implementation of BECAN study in Bulgaria. The valid sample includes 2,040 children (11 year-olds: 662, 13 year-olds:665, 16 year-olds: 693), from three stratified regions. The study was held in the period. The ICAST-CH questionnaires were used (for self-completion by children, and structured interviews with some children) for collection of the data. The results show that most reported form of violence was psychological (68.97 %), followed by physical one (61.72 %), and neglect (23.8 %). The results from the binary logistic regression analyses' show significant relationships between: gender and prevalence of psychological and physical violence ($p < 0.05$), gender and incidence of psychological, physical violence and sexual violence ($p < 0.001$); gender and age group and prevalence and incidence of psychological and physical violence ($p < 001$). Physical and sexual violence were more frequent in children living in rural areas. The perpetrator of psychological and physical violence more often was an adult, while the perpetrator of sexual abuse more often was familiar (adolescence) to the child, or unknown adult. The discussion is stress on the more common behaviors in the frame of psychological, physical and sexual violence, that children were exposed and possible psychosocial influences in a broader context. The impact of existed preventive programs at primary, secondary and tertiary levels are discussed. The directions for future research and prevention for child abuse and neglect in school-aged children are presented, based on the results of the study and the literature reviews on the particular topics.

Keywords: Prevalence, incidence, child, violence, ICAST-CH, prevention.

T1-01

Phenotypic conundrums in the diagnostic appraisal of autism spectrum disorders

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The landscape of social communication disorders has changed radically with the introduction of DSM-5 diagnostic criteria. Why should this matter? Simplifying the rubric by which we define ASD is laudable. Yet many symptomatic conundrums, concerning the nature of 'real autism', remain unresolved. Cognitive, neuroimaging, and genetic evidence of ASD heterogeneity will be reviewed, in an attempt at resolution.

Keywords: *DSM 5, symptomatic conundrums*

T1-02

Understanding neurodevelopment—challenges and aspirations in child and adolescent mental health

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The route through childhood is shaped by many different forces'. 'Forces' or factors that may postively or negatively affect developmental trajectories and ultimately influence life course. One of the greatest challenges to understanding mental health will be to understand the unique interplay and timing of risk factors ranging from biological to environmental and how they operate in tandem to confer either positive or negative outcomes for children, adolescents and into adulthood. Studying aetiology in mental health disorders is obviously complex, due to heterogeneity in the clinical presentation, complex genetic risk factors and limited availability of model systems to study mental disorders. Historically efforts have focused on understanding genetic underpinnings of highly heritable disorders such as autism or the study of brain structure or function using imaging technologies. Some progress has been achieved within these fields and now the post-genome era is focused on gaining better understanding of the neurobiology of common neurodevelopmental disorders to inform therapeutics. Major international collaborative efforts will be required to move closer to the goal of improved therapies and this will require major investment and commitment. However ultimate understanding of normal and deviant neurodevelopment is likely to more broadly inform our understanding of the causes and evolution of mental health disorders and the translation of this understanding into better treatments and outcomes.

Keywords: *Forces, neurodevelopmental, challenges, aspirations*

T2-01-01

Clinical trials in anxiety and affective disorders, lessons learned and new directions

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Objective: Anxiety disorders encompass a variety of symptoms and frequently present in childhood affecting up to 20 % of children. Affective disorders have a high prevalence as well with up to 25 % of youth having a depressive episode by the end of adolescence and 2 % having bipolar disorder over the same time period. Despite the high rates psychiatric research has only recently addressed these two areas of psychopathology. With the advent of the PIPP in the EU pediatric trials for anxiety and affective disorders have begun in Europe.

Methods: They symposium will review two of the major multisite trials studying the treatment of anxiety disorder and affective disorders funded by the National Institutes of Health in the United States. The anxiety trial examined treatment of youth with both medication and cognitive behavioural therapy CAMS (Child/Adolescent Anxiety Multimodal Study). This pediatric study focused on three major types of anxiety seen alone and in combination in children, generalized anxiety disorder, separation anxiety disorder, and social phobia. The study compared sertraline, pill placebo, cognitive behavioural therapy, and combination treatment with sertraline plus cognitive behavioural therapy. The affective disorder study was a comparative trial of lithium versus risperidone, versus valproic acid in pediatric bipolar disorder TEAM (Treatment of Early Age Mania). Both trials have been completed and results have been published. The symposium will describe the methods and results from these trials. Many other trials in these areas have failed due to the elevated placebo response rates, especially in pediatric anxiety and affective disorders. Using the knowledge gained from these and other trials, researchers have incorporated new methodology into pediatric studies in the EU for anxiety and affective disorders.
Results: They key outcomes from CAMS and TEAM will be presented by investigators on those trials in the US. In the CAMS trial combination treatment was the optimal treatment but drug and CBT were also effective. In the TEAM study risperidone was superior to lithium which was superior to valproic acid. A leading researcher from the EU will discuss the issue of high placebo response rates, factors that contribute to high placebo response rates, and steps to minimize placebo response. The final presentation will be by another EU psychiatrist who has submitted the first successful paediatric investigation plan (PIP) for a program using a new antidepressant.
Conclusions: Anxiety and affective remain common disorders affecting children and teenagers throughout the world. Evidence based studies have provided information about efficacy and safety of both medication and psychotherapy but show that treatments are still not effective for all individuals and trials are plagued by high placebo response rates. New approaches to both medications and study design will lead to more informative studies and better health for youth with anxiety and affective disorders.
Keywords: *Anxiety mood*

T2-01-02
The placebo response: models and implications for child and adolescent internalized disorders

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Placebo effect is a neglected area with biological basis. e.g. Placebo administration has been found to activate both dopamine and endogenous opioid peptides in the nucleus accumbens, thus suggesting an involvement of reward mechanisms in some types of placebo effects. In children and adolescents, it appears to be particularly large. In two related studies, we investigated predictors of placebo response in short-term, placebo-controlled trials of psychotropic drugs for children and adolescents internalizing disorders (23 trials, 2,533 patients in placebo arms), that is major depressive disorder (MDD), obsessive compulsive disorder (OCD) and other anxiety disorders (AD-non-OCD) [1,2]. We found that for all internalizing disorders combined, predictors of placebo response were the percentage of white patients included in the study and the duration of the disorder, all of which were negatively correlated. The placebo response rate was also significantly higher in studies on MDD, than in those examining OCD and AD-non-OCD. Children showed a higher stable placebo response within all three diagnoses than adolescents, though this difference was not significant. Finally, no significant effects were found with respect to the year of publication. For the subset of MDD studies, the only predictor was baseline illness severity, which was negatively correlated with placebo response. Finally, trial "success" was significantly associated with lower placebo response rate. We will discuss the implications of these findings regarding both future research in psychopharmacology and psychopathology of internalizing disorders in children and adolescents.
Keywords: *Placebo*, *depression*, *anxiety disorder*

T2-01-03
Results and treatment implications from the TEAM (Treatment of Early Age Mania) study

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This session will review recent results from the TEAM (Treatment of Early Age Mania) study, which examined efficacy and tolerability of medications for pediatric bipolar disorder. The TEAM study is a large federally funded, multisite, controlled medication trial comparing lithium, divalproex sodium, and risperidone. Medications were selected as representative of individual classes of treatment, traditional mood stabilizer (divalproex sodium), antipsychotic (risperidone), and lithium. A total of 279 medication-naïve patients aged 6–15 were enrolled and randomized to one of the three medications. Titration according to a predetermined schedule was implemented; dosages were increased based upon tolerability and symptom resolution. Primary outcome measures were the Clinical Global Impressions for Bipolar Illness Improvement-Mania and the Modified Side Effects Rating Form for Children and Adolescents. Raters at baseline and at study endpoint were blinded to treatment assignment. The TEAM study demonstrated that risperidone was superior to lithium and divalproex sodium in treatment naïve patients with bipolar disorder. All three medications were found to be effective in improving symptoms and overall treatment of bipolar disorder. Response to lithium compared to divalproex sodium was similar. The dropout rate was higher for lithium than for risperidone. Additionally, side effects of increased weight gain, body mass index, and prolactin level occurred with risperidone more than lithium. The session will review detailed findings from the TEAM study and discuss treatment implications for pediatric bipolar disorder.
Keywords: *Bipolar*, *pediatric*, *clinical trial*, *medication*

T2-01-04
Developing EU paediatric research in psychopharmacology: the role of the EU paediatric regulation

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With the exception of ADHD drugs, only a few psychotropic agents used for psychiatric conditions in children and adolescents have in EU a paediatric indication, for instance to date only fluoxetine is approved in EU for children and adolescents with major depressive disorder (MDD); however selective serotonin reuptake inhibitors (SSRIs), remain quite commonly prescribed in EU for children and adolescents with MDD, despite few positive efficacy results. To date, the development of antidepressants in paediatric MDD has mainly been conducted in the US, triggered by the US Paediatric Regulation, with a vast majority of studies solely performed in the US. Compared to the US, the EU experience in paediatric psychopharmacological research is less extensive. Several years after the implementation of the European Paediatric Regulation, a few Paediatric Investigation Plans (PIPs) for child psychiatric conditions have been agreed upon, including two for antidepressants. The EU regulation is changing drug development in EU: the concern of protecting children against clinical research fading away, a new paradigm is now emerging i.e. protecting children through clinical research. Paediatric development is no longer an optional add-on strategy to adult development and starts to be truly integrated in clinical development plans. However for pharmaceutical companies, designing clinical trials in children requires taking into account specific ethical, clinical and practical including feasibility considerations. Ultimately, it is through well-conducted research that children will gain access to new medications and receive safe and optimal drug therapy.

Keywords: *Paediatric development*, *clinical research*, *paediatric psychophamacology*, *EU paediatric regulation*

T2-01-05

The child/adolescent anxiety multimodal trial

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Objective: The overall purpose of this presentation is to present a full review of the data from the Child/Adolescent Anxiety Multimodal Study (CAMS) including a brief review primary outcomes and remission rates; and a greater focus on the secondary efficacy outcomes, moderators and mediators, extended safety evaluation of sertraline, study of potential genetic markers of outcome and long-term follow-up.

Background: Anxiety disorders are among the most common conditions affecting children and adolescents with point prevalence of 12–20 %. The three most common childhood-onset anxiety disorders, separation anxiety disorder (SAD), generalized anxiety disorder (GAD) and social phobia (SP), routinely co-occur and cause clinically significant impairment. Left untreated, childhood anxiety disorders presage persistent anxiety, major depression and substance abuse into adulthood.

Methods: CAMS is a 2 phase, 6-site randomized controlled trial. Phase I is a 12-week unbalanced, randomized (2:2:2:1) controlled efficacy study comparing sertraline (SRT), cognitive behavioral therapy (CBT), combination of SRT and CBT (COMB), pill placebo (PBO) in 488 children ages 7–17 years with primary DSM-IV diagnoses of SAD, SP, and GAD. Phase II involves a 6-month treatment maintenance period for Phase 1 responders. All subjects were evaluated at all scheduled assessment points (Screening, Baseline, and weeks 4, 8, 12, 24, 36).

Results: The mean (SD) age of participants was 10.7 (2.8) years, with 74.2 % <13 years of age. There were nearly equal numbers of males and females, most of whom were white (78.9 %), with other racial and ethnic groups represented. Most participants were diagnosed with two or more primary anxiety disorders (78 %) and one or more secondary disorders (55.3 %). Using the intent-to-treat sample, the percentage of children rated as 1 ("very much improved") or 2 ("much improved") on the week-12 Clinical Global Impression-Improvement score were combination = 80.7 % (95 % CI 73–86 %), cognitive behavioral therapy = 59.7 % (95 % CI 51–6 %), sertraline = 54.9 % (95 % CI 46–63 %), and placebo = 23.7 % (95 % CI 15–34 %) There was no main effects for site (P = 0.6926). Unpublished data on secondary efficacy outcomes, moderators and mediators, extended safety data, long term outcomes and genetic findings will be presented.

Conclusion: A full analysis of acute phase and long term outcomes of CAMS will provide substantial information to guide the clinical treatment of children and adolescents with anxiety disorders.

Keywords: *Anxiety disorders*, *children*, *adolescents*, *CBT*, *SSRIs genetics*

T2-02-01

The at-risk mental state for psychosis in adolescents: Clinical presentation, transition and remission

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Despite increased efforts over the last decade to prospectively identify individuals at ultra-high risk of developing a psychotic illness, limited attention has been specifically directed towards younger, adolescent populations (<18 years). The accurate identification of these "at risk" individuals may represent an opportunity to prevent serious mental illness. In order to evaluate how those under 18 fulfilling the operationalised criteria for an At-Risk Mental State (ARMS) present to Child and Adolescent Mental Health Services and fare over the short-term, we conducted an observational study. Thirty participants (meeting the Melbourne Ultra High Risk criteria), aged 12–18 years were recruited and followed up at 6 and 12 months to assess for conversion to a psychotic illness and symptom remission. Participants generally reported a hight degree of functional disability and frequent and distressing perceptual disturbance, mainly in the form of auditory hallucinations. Seventy percent (21/30) were found to fulfil the criteria for an ICD-10 listed mental health disorder with several individuals reaching the threshold for mood (affective; 13/30), anxiety (6/30) or pervasive developmental disorders (5/30). Six month transition rates were low with only one participant becoming psychotic (additional data from the 12 month follow up will also be presented). Overall a significant reduction in visual disturbances and disorganised speech were reported by participants. The findings suggest that adolescents fulfilling the ARMS experience distressing psychotic-like symptoms and high rates of depression and anxiety upon presentation to mental health services. These symptoms however do not appear to persist over the short-term. The generalisation of these findings may be limited due to the small sample size.

Keywords: *Psychosis*, *risk*

T2-02-02

Child and adolescent psychosis: developmental perspectives and service provision

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This symposium focuses on some developmental and service perspectives in child & adolescent psychosis. Studies of psychosis have become more dynamic, in terms of developmental perspectives regarding a range of early risks, factors associated with transition to psychosis, and variable pathways to care. This symposium illustrates these themes with four studies carried out in the UK and Ireland. Psychotic symptoms are widely prevalent occurring in 5 % or more of the population. Investigation of risk factors for psychosis and psychotic symptoms has considered early stresses factors. The large study (Fisher et al.) using the ALSPAC birth cohort has confirmed that bullying and domestic violence are associated with psychosis like symptoms. The study goes on to show how the mediators between the adversities and psychotic symptoms include anxiety and low mood. This is consistent with the second presentation (Kelleher et al.) which shows that amongst children who attend CAMHS with psychotic symptoms, most have non-psychotic disorders such as affective and anxiety disorders, and this group are also at increased risk of DSH, and many have functional impairment. Many individuals with psychotic symptoms and functional impairment seek help, and attention has turned to risk of transition to psychosis. The third presentation (Welsh and Tiffin) describes the clinical features and transition rates amongst adolescents who present with "At-Risk Mental States". The final study (Dominguez et al.) reports the pathways to care for adolescents with first episode of psychosis using a large data set from the Early Intervention in Psychosis service in London. The study describes the differences in pathways comparing adolescents and adults, and the reasons for these differences.

Keywords: *Psychotic symptoms*, *psychosis*, *at-risk mental state*, *transition*, *pathways to care*

T2-02-03

Psychotic symptoms in a general adolescent mental health clinic sample: implications for suicidality, multimorbidity and functioning

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Background: Research has shown that psychotic symptoms are relatively common in adolescents in the community and that these symptoms are associated with psychopathology and suicidal behaviour. There has been a lack of clinic-based studies, however, on the prevalence and clinical significance of psychotic symptoms.

Aims: To investigate, in a clinical sample of adolescents referred to a state-funded child and adolescent mental health service (CAMHS), the prevalence of psychotic symptoms and the relationship with (1) affective, anxiety and behavioural disorders (2) multimorbid psychopathology (i.e., more than one disorder), (3) global functioning and (4) suicidal behaviour.

Method: Clinical case—clinical control study using semi-structured research diagnostic psychiatric assessments in 115 newly-referred patients.

Results: Psychotic symptoms were prevalent in a wide range of (non-psychotic) disorders. Psychotic symptoms were strong markers of risk for multimorbidity ($Z = 2.44$, $p < 0.05$): the majority of young people with psychotic symptoms had at least three non-psychotic Axis-1 disorders. Young people with psychopathology who reported psychotic symptoms demonstrated significantly poorer socio-occupational functioning than young people with psychopathology who did not report psychotic symptoms, even after adjusting for multimorbidity ($OR = 0.41$, $CI95 = 0.20–0.83$). Twenty-seven percent of the patients sample presented with suicide attempts and a large majority (67 %) of these individuals reported psychotic symptoms when assessed. Stratified analyses showed that patients with major depressive disorder (MDD) or an anxiety disorder who also had psychotic symptoms had a greatly increased risk of suicide attempts (respectively: $OR = 7.9$, $CI95 = 2.8–21.9$; $OR = 3.1$, $CI95 = 1.2–8.1$). Patients with MDD or anxiety disorder who did not have psychotic symptoms did not have an increased risk of suicide attempt.

Conclusions: Psychotic symptoms are an important but under-recognized marker of risk for severe psychopathology, functional impairment and suicidal behaviour in non-psychotic CAMHS patients.

T2-02-04

Pathways between childhood victimization and psychosis-like symptoms in the ALSPAC birth cohort

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Background: Several large population-based studies have demonstrated associations between adverse childhood experiences and later development of psychotic symptoms. However, little attention has been paid to the mechanisms involved in this pathway and the few existing studies have relied on cross-sectional assessments.

Method: Prospective data on 6,692 children from the UK Avon Longitudinal Study of Parents and Children (ALSPAC) were used to address this issue. Mothers reported on children's exposure to harsh parenting and domestic violence in early childhood, and children self-reported on bullying victimization prior to 8.5 years. Presence of children's anxiety at 10 years and their depressive symptoms at 9 and 11 years were ascertained from mothers, and children completed assessments of self-esteem and locus of control at 8.5 years. Children were interviewed regarding psychotic symptoms at a mean age of 12.9 years. Multiple mediation analysis was performed to examine direct and indirect effects of each childhood adversity on psychotic symptoms.

Results: The association between harsh parenting and psychotic symptoms was fully mediated by anxiety, depressive symptoms, external locus of control, and low self-esteem. Bullying victimization and exposure to domestic violence had their associations with psychotic symptoms partially mediated by anxiety, depression, locus of control, and self-esteem. Similar results were obtained following adjustment for a range of confounders and when analyses were conducted for boys and girls separately.

Conclusions: These findings tentatively suggest that specific cognitive and affective difficulties in childhood could be targeted to minimize the likelihood of adolescents exposed to early trauma from developing psychotic symptoms.

Keywords: *Childhood*, *bullying*, *longitudinal*, *psychosis*, *trauma*

T2-02-05
Differential pathways to care in first episode psychosis: adolescents versus adults

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Introduction: Adequate pathways to care are a prerequisite for early detection and intervention in First Episode Psychosis (FEP). Care pathways are a sequence of contacts with individuals and organizations prompted by the distressed person or their significant others to seek help. It is a dynamic process shaped by individual, social, cultural and health service factors. Two recent systematic reviews examined the influence of ethnicity, social and clinical factors on care pathways for FEP. Accessibility to health services differs for under 18s, yet differences in pathways to care between age groups have not been investigated. This study aimed to compare the specific path in which youth with FEP access mental health services versus adults, and the influence of family factors in help seeking pathways.

Method: Cohort study of 1,351 FEP (14–35 years) referred to Early Intervention Psychosis teams in London (2003–2009). Pathways to care were systematically collected through interviews with patients and families, including accounts on initial contact points [general practitioners (GP), emergency services, education, social and refugee services, police and court/prison] and the person who initiated the help-seeking process.

Results: The first and second contact points for the largest proportion of adolescents (n = 118) and adults (n = 1,232) were GP (30 vs 42 %) and emergency services (18 vs 23 %), respectively. However, these two services accounted for less than half of the adolescents' referral routes to the Psychosis Team. Compared to adults, adolescents made a significantly higher use of education, probationary and refugee services. Findings regarding the influence of family factors (living arrangements, social support and history of mental health) and whoever initiated the help-seeking process shaped care pathways will be provided.

Conclusions: The emphasis on early detection and treatment of FEP has led to an interest in the routes by which patients access help. Adolescents differ from adults in their contact points when seeking help. Integrated care pathways for adolescents need to take into account developmental perspectives and social networks to ensure effective service delivery. Problem recognition is a complicated process which involves identifying and legitimizing mental health concerns amongst various players, not the least young people themselves. Parental awareness and perception of problems might be a key step in seeking help. For those adolescents who lack familial support, service provision needs to reinforce alternative routes.

Keywords: *Pathways to care*, *First Episode Psychosis*, *adolescents*, *early detection*, *health services*

T2-03-01
ESCAP: teaching and training in eating disorders- the evidence?

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Background: Eating difficulties can present in a range of settings, for example in primary care (e.g. by the GP), in other medical services or in multidisciplinary psychiatric services. It is important that professionals trained to do the initial assessment of whether or not a person has an eating disorder and/or what kind of difficulties these might be, should use evidence based strategies and have appropriate skills in terms of communicating with other disciplines, in keeping with the evidence base in the area. What, therefore, is the best way to educate current clinicians in various disciplines? Are Interprofessional education (IPE) strategies employed in this setting? Is there an extant evidence base with respect to Child mental health professionals?

Methods/Results:

- Literature review of the current evidence base with respect to Eating Disorders.
- Information regarding Adult learning styles and problem based learning approaches will be provided. There has been a clear transition from didactic teaching models to methods such as workplace based assessment at 360° assessments.
- Current evidence with respect to Eating Disorder training will be reviewed.

Conclusion:

- Eating disorder care is provided by interdisciplinary professionals. For these complex disorders, good interprofessional communication and collaborative work are essential.
- Adult learners are "*in a continuing process of growth*, *they bring unique experiences and values… they come to education with intentions and expectations of the learning process… they have competing interests and… they have their own set patterns of learning*".(*1*(2,3,4,5,6).
- One approach to supporting this is educating these professionals together, to bolster interprofessional communication. This approach is known as 'Interprofessional Education'. The ultimate aim of such approaches is to improve patient care.
- Current studies and special interest groups furthering this will be discussed.

Keywords: *Eating disorders*, *IPE*, *education and training*

T2-03-02
Eating problems in children and adolescents EPICA

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Aim: To examine eating concerns in a cohort of non-referred Irish school-going adolescents, and to examine the impact of pubertal timing and media portrayal of body image on eating psychopathology.

Method: Students from a stratified random sample of post primary schools were screened using the EAT-26, the EDI-III and a study specific questionnaire including questions regarding the impact of media portrayal of body image and a self-report measure of pubertal status and pubertal timing.

Results: 3,031 students (mean age 14.74, range 12–19) enrolled in the study. The majority of respondents felt popular (91 %), happy (75.2 %) and perceived themselves to have a good quality of life (86.8 %). Despite this, 32 % of females dieted, 29.4 % were dissatisfied with their bodies, and 10.8 % scored above 20 on the EAT-26. Adolescents always on a diet reported a lower quality of life (QoL) χ^2

(16, N = 2,961) = 144.43, $p < 0.000$, perceived themselves to be less popular χ^2 (15, N = 2,963) = 53.26, $p < 0.000$ and less academically able χ^2 (16, N = 2,297) = 43.96, $p < 0.000$, than those who never dieted. Comparing EPICA values to published norms (Garner 1982), Irish females had higher levels of bulimic features and oral control. Girls in mixed schools had higher rates of body dissatisfaction F (1,2855) = 16.61, $p < 0.001$ and Drive for thinness F (1,2860) = 11.78, $p < 0.005$ than girls attending same sex schools. More than a quarter of adolescents (25.6 %, N = 759) felt that media portrayal of shape and weight was "far too thin" and the majority (71.4 %, N = 2,805) were adversely affected by it. A significant correlation between media impact and high EAT scores ($\chi^2 = 450.78$, df = 2, $p < 0.05$) or EDI-III scores ($\chi^2 = 387.51$, df = 4, $p < 0.05$) was demonstrated. Regarding pubertal status, greater maturity was associated with increased eating concerns, higher drive for thinness and higher levels of body dissatisfaction in girls and with lower drive for thinness and lower body dissatisfaction in boys. Regarding pubertal timing, early-maturing girls showed the most eating concerns, the highest drive for thinness, scored highest on bulimic symptoms, and were the most dissatisfied with their bodies. In contrast, late-maturing boys had more eating concerns, more bulimic symptoms, and more dissatisfaction with their bodies than on-time peers.

Conclusions: Weight and body image concerns were high amongst Irish adolescents, especially females, with higher than expected levels of Bulimia and oral control scores on the EAT but lower scores on the dieting subscale. Females attending mixed sex schools appear most at risk of eating pathology. Media portrayal of body shape and weight correlated with risk of eating pathology. Puberty itself may be a risk factor for disordered eating for girls but not boys, however pubertal timing is a risk factor for both. School psycho-educational programmes and media policies providing corrective information and information on appropriate help could be beneficial.

Conflict of interest: Prof McNicholas is on the Advisory Board of Shire. In the past, she has received travel support to academic meetings, and has given invited talks.

Keywords: *Eating disorders*, *eating problems*, *media impact*, *puberty*, *prevalence*

T2-03-03

Online support groups for young people with eating disorders: benefits and challenges

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The stigma that surrounds eating disorders can act as a barrier to receiving effective support and treatment. Research suggests that individuals with eating disorders tend to be viewed by the public as more responsible for their illness and more likely to be attention-seeking than other patient groups. Failing to seek treatment shortly after onset of an eating disorder can result in the disorder becoming a chronic condition with significant personal, social, and economic consequences. Many young people with eating disorders may feel quite isolated and unable to approach family members or professionals for help with their illness due to a fear of being judged. It is important that services develop in creative ways to meet the needs of these young people. With this in mind attention has increasingly focused on the potential of online support groups to effectively reach out to young people in distress. Online support groups are a medium through which participants can reveal their personal struggles and avail of the support which they may sometimes feel is lacking in their public lives while still maintaining a degree of anonymity. This paper discusses the potential usefulness of online support groups as a self-care tool for young people and outlines two significant challenges facing those providing and evaluating such services: (1) providing a sound theoretical foundation for research and (2) including the voices of the young people who use online services in efficacy studies. It is vital that research is conducted on the online support services that young people are accessing to ensure that these are effective and safe services, especially for those who feel that they have no other supports available to them.

Keywords: *Online support*, *social identity*, *service evaluation*

T2-03-04

Eating disorders in Ireland, presentation, management and barriers to care

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Eating disorders (ED) pose a considerable threat to the health and wellbeing of children and adults in the Western world. They constitute a range of illnesses characterised by abnormal eating and specific psychopathology. The frequency with which they occur in appears to have increased over recent years, with estimates of approximately 0.5–1 % for anorexia nervosa (AN), 2 % for bulimia nervosa (BN) and 4–5 % for partial presentations of these syndromes in adolescent females. Eating Disorders Not Otherwise Specified is more common again, such that total prevalence can be as high as 8–10 % among at risk populations. Dieting behaviours in children and adolescents are widespread and impact on the prevalence of eating disorders, and coupled with the increase in obesity, are also on the rise. Early recognition of abnormal eating and dieting behaviours are essential to help reduce transition to more sever psychopathology. The academic literature provides strong support to the concept of early intervention in EDs, mediated through a stepped care model of service delivery from primary care through to tertiary specialist care when indicated. Service users, family and carers should be regarded as integral members of the treatment team and should be offered education and information and access to supported self-help, peer support and other support groups. This function in Ireland is currently provided Bodywhys. This workshop presents data on the prevalence of abnormal eating behaviours in a cohort of 3,031 Irish secondary school students and considers the impact of both puberty and the media as mediating factors. An overview of existing and proposed services for ED is presented with particular reference to difficult to treat patients. The role of Support organisation is considered, along with method to evaluate the efficacy of such support. The workshop conclude by considering what steps should be taken when devising training in the treatment of ED for professionals and how to evaluate its effectiveness.

Educational learning objectives:

- Become aware of the nature and frequency of Eating problems in an Irish community sample

- Understanding existing services for eating disorders (ED) in Ireland, and issues around difficult to treat patients
- Role of support services in identification, management and prevention of EDs.
- How to evaluate the efficacy of support services
- How to develop and evaluate specific professional training in the treatment of EDs.

Keywords: *Eating disorder*, *mental health*, *online support groups*

T2-03-05

The role of a support organisation in the treatment and recovery process for eating disorders

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The treatment and recovery process from an eating disorder can be extremely varied, complicated and difficult, both from the perspective of the person who is recovering from an eating disorder as well as their families and clinicians. Bodywhys, The Eating Disorders Association of Ireland supports a process of recovery, allowing the individual to develop their own resilience to live a fulfilling life beyond the challenges of an eating disorder. Easy access to a range of support services is central to this approach. Outlining the background to the establishment and development of Bodywhys in 1995, this paper discusses the value that the role of a support organisation can bring to the recovery process. The support ethos that guides all of the work of Bodywhys, has developed from what we have heard from people who are experiencing an eating disorder. As such it is their experience that has shaped and influenced the development of our support services (helpline, support groups, email support and online support groups). This paper will briefly outline the development of Bodywhys within the Irish context, and the development of our services, in particular our online services, which at the time of development were innovative and are now central to the provision of support, tackling stigma, and providing people with a safe place in which they can explore what is happening to them. This paper will also reflect upon the picture of what is happening in Ireland in relation to those seeking support for eating disorders. A key development in relation to services in Ireland, is to place timely and appropriate treatment and support, to adolescents affected by eating disorders. This paper will discuss the role that Bodywhys has to play in this development, and the benefit that this involvement can create for all involved.

Keywords: *Eating disorders*, *support*, *treatment*, *recovery*

T2-04-01

04 Early adult outcomes for Irish children with behavioural difficulties

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Early behaviour difficulties are strongly associated with later psychological problems, poor educational attainment and involvement in crime and therefore have important implications for clinical and service delivery. Yet, there are few longitudinal studies of Irish children and, to date, no studies reporting long-term outcome for those with behavioural disorder in childhood. This paper describes psychological and educational outcomes for a group of Irish children initially assessed at age 11 years and re-examined 10 years later. The period during which the research was conducted coincided with a time of increasing wealth in Ireland and the consequent development of psychological and educational services. The aim of the study was to follow-up and assess psychological and educational outcomes for a group of young people aged 21 years, half of whom had high levels of behavioural problems at age eleven. Data was gathered at two time points for 97 children and their families. Childhood measures included psychological and behavioural functioning, IQ, family background and economic circumstances. Outcome measures assessed in young adulthood included psychological functioning, educational attainment and contact with the law. Behavioural deviance at age eleven was found to be highly predictive of negative outcomes in early adulthood including a greater likelihood of involvement in criminal activity and less educational success. The likelihood of educational failure increased with the accumulation of risk factors including economic disadvantage and low IQ. These findings, supported in other international studies, underline the importance of behavioural difficulties in childhood for adult outcome, even in an environment of greater service and educational opportunities and access.

Keywords: *Behaviour disorder*, *childhood disorder*, *adult outcome*, *follow-up study*, *risk factors*

T2-04-02

Using large-scale longitudinal cohorts to unravel etiologic mechanisms

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Environmental factors, often in complex interplay with genetic factors, play an important role in the emergence of psychopathology. It is widely accepted that even prenatal and other early life experiences may be important determinants of later psychopathology. Many birth cohorts focused on early life as a source of child and adult psychopathology. The Generation R (R for Rotterdam) study is a recent longitudinal population based cohort in which children are followed-up from fetal life forward. Child psychiatric research in Generation R has utilized ultrasound to investigate early development. We found that several maternal exposures had substantial consequences as measured by fetal head or body growth. These factors could potentially be relevant as intervention targets to improve birth outcomes on a population-based level. Intrauterine exposures including those by maternal depression, anxiety, smoking, SSRI, nutrition, and cannabis were studied in relation to fetal growth and later child problems. Also influences such as family functioning, breast feeding, paternal psychopathology, harsh parenting, socioeconomic differences, and TV viewing on child development were studied. We found that several maternal exposures had substantial consequences as measured by fetal head or body growth. The prevalence of these exposures differs but Generation R data indicate that they could potentially be relevant as intervention targets to improve birth outcomes on a population-based level. In contrast, maternal prenatal exposures and fetal growth patterns had a less clear association with child problem behavior and

cognition. Some prenatal exposures (e.g. reduced fetal growth) had no substantial effect on child behavior, several prenatal exposures (e.g. maternal obesity) had effects best explained by confounding, other prenatal exposures (maternal depression) had little direct intrauterine effects, whereas some prenatal exposures (e.g. maternal subclinical thyroid problems) had consistent effects on child emotional and cognitive development. Alternatively, our findings may show that children are sufficiently resilient to compensate many proposed neurodevelopmental risks. Several studies in Generation R have taken a multifactorial approach. A variety of risk factors contributed to our understanding of the increased level of psychopathology, for example, in the case of non-Dutch children. Numerous specific immigration characteristics and different family risk factors were taken into account. Individual differences in any common child problem, e.g. psychopathology or language delay, arise from a large number of causal factors, with each factor contributing a relatively small effect. This cumulative risk model suggests that as genetic, perinatal, and environmental risk factors accumulate, the child is at progressively greater risk, despite the small impact any single factor is likely to have.

Keywords: *Epidemiology*, *prenatal influences*, *developmental psychopathology*

T2-04-03

Mental health problems of children and adolescents in Germany. Findings from the BELLA longitudinal study

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Question: High prevalence rates of mental health problems in childhood and adolescence are considered one of the biggest global health challenges of the 21st century. The present research reports data on mental health problems and mental health service utilization in Germany.

Methods: The sample of the BELLA cohort study is representative for Germany and consists of n = 4,000 families with children and adolescents aged 3–17 years. Baseline data was collected from 2003 to 2006 and three follow-up waves were carried out 1, 2 and 4 years after baseline. The data were collected by computer-assisted telephone interview and subsequent questionnaires through parent reporting and, for subjects above the age of 11 years, by additional self-reporting. In order to identify mental health problems the extended version of the Strengths and Difficulties Questionnaire (SDQ) was applied. Further symptoms of anxiety (SCARED), depression (CES-DC), conduct disorder (CBCL), and ADHD (Conners' Scale) were assessed together with other data on child health and wellbeing. A clinical interview (DIPS) was administered to derive DSM-IV diagnoses (e.g., depressive disorder, anxiety disorders, ADHD, eating disorders, substance disorders).

Results: Of all children 21.9 % indicated mental health problems and stability was 50 % at follow-up. Regarding specific mental health problems, anxiety was observed in 10 %, conduct disorder in 7.6 %, depression in 5.4 %, and ADHD in 2.2 % of the 7–17 year-olds. 48.5 % of children with reported diagnosed mental health problems received specific treatment. Further results on mental disorders (prevalence, onset, persistence, co-morbidity) are presented.

Conclusions: Implications for prevention and child mental health services in Germany are discussed.

Keywords: *Mental health problems*, *depression*, *anxiety*, *ADHD*, *service utilization*, *health survey*

T2-05-01

Explaining reoffending and psychiatric relapse in youth forensic psychiatry from a good lives model perspective

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Background: One of the assumptions of the Good Lives Model (GLM; Ward and Stewart 2003) is that internal conditions, such as psychiatric disorders or self-perception, are related to change in behaviour after treatment. The Good Lives Model assumes that this relation between internal conditions and behavioural change is mediated by quality of life (QoL; Barendregt et al. 2012). Prior studies have shown that negative affect and depressive symptoms have a detrimental effect on the daily living activities which are related to QoL (e.g. Wiesner et al. 2005).

Methods: In this study, 172 youngsters admitted to youth detention centres or youth forensic psychiatric hospitals were studied. Primary human needs, based on the Good Lives Model, were measured with the Lancashire Quality of Life Profile (LQoLP; Van Nieuwenhuizen et al. 2002). Moreover, the WODC Youth Delinquency Survey (Van der Laan et al. 2009) was administered in order to assess antisocial behavior and psychiatric diagnoses were assessed through file study. The relationship between primary human needs and psychiatric disorders/antisocial behavior was investigated using regression analyses.

Results: The regression analyses revealed that fulfilling specific basic human needs was related to antisocial behaviour and psychiatric disorders, even when was accounted for risk factors. For instance, when needs related to health were fulfilled, the chance of being classified with a psychiatric disorder was lower.

Conclusion: Psychiatric disorders and antisocial behavior are related to primary human needs. This is an important first step in testing the Good Lives Model in youth forensic psychiatry. Further research is needed on whether QoL may change during imprisonment and whether QoL is related to recidivism/psychiatric relapse after detention.

Keywords: *Juvenile delinquents*, *good lives model*, *quality of life*, *psychiatric disorders*

T2-05-02

The copycat phenomenon after two Finnish school shootings

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Background: Two school shootings took place in Finland in November 2007 and September 2008. After the shootings, threats to carry out a school massacre increased rapidly. The aim of the present study project was to characterize adolescent copycats. The other aim was to determine whether the adolescents who had expressed a school massacre threat online differed from those who had expressed one offline.

Methods: The nation-wide study evaluated altogether 77 13- to 18-year-old adolescents who were sent for adolescent psychiatric evaluations between 8.11.2007 and 30.6.2009 by their general practitioners because they had threatened to carry out a school massacre. According to the referrals and medical files, 17 adolescents had expressed the threat online and 60 did so offline. Data on the adolescents' psychiatric symptoms were collected from the referral and the medical charts written during the assessment and treatment initiated after the threat was expressed.

Results: The copycats with school massacre threats were characterized with a high prevalence of mental disorders. The adolescents who expressed their threats online were more likely to be bullied and depressed, had more often pronounced the threat with clear intention and had more often made preparations to carry out the act. The results will be presented in details.

Conclusion: Adolescents expressing threats to carry out a school massacre appear to be severely disturbed and, referral to adolescent psychiatric services in these situations is justified. The adolescents who express their massacre threats online seem to be considered a riskier group then the group who express the threats offline. Further studies with bigger sample sizes are needed to elucidate this important topic.

Keywords: *Copycats*, *school massacre*, *psychiatric disorders*, *threat*

T2-05-03
Delinquent adolescents in Switzerland—results of an epidemiological study

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Objective: International studies have revealed that the rate of psychiatric disorders in juvenile justice samples is very high, reaching up to 70–80 % of the adolescents living in residential forensic care. This goes in line with only modest effect sizes concerning the treatment effects of delinquent adolescents living in residential care.

Method: We studied a representative sample of 592 adolescents and young adults (402 boys, 190 girls; mean age 16.1 years, SD 3.1) from 64 Swiss institutions that offer residential care for delinquent adolescents. The diagnostic procedure included a goal attainment scale to assess treatment effects, diagnostic interviews for axis I and II psychopathology and self-rating questionnaires for the screening of traumatization, substance abuse, self-reported delinquency and personality traits like psychopathy.

Results: Individual as well as psychosocial risk factors were very prominent in this sample: 76 % of all adolescents showed CBCL-Total scores in the clinical range, 74.3 % had one or more psychiatric disorders, 80 % of the adolescents reported one or more traumatic life events in their history. Despite this enormous burden of risk factors the treatment effects after 1 year of intensive residential care were higher than in other international studies with ES from 0.18 to 0.40. Treatment was less effective in those adolescents with a high number of former residential care placements and with high levels of psychopathy.

Conclusion: Delinquent adolescents in residential care show an extensive burden of individual and psychosocial risk factors. To improve the long-term outcome of these adolescents highly intensive treatment approaches that address the special needs of this population are essential.

Keywords: *Forensic psychiatry*, *adolescence*

T2-05-04
Adolescent forensic research across Europe: an EFCAP Symposium

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Youth violence is an increasing concern across Western societies. Adolescent forensic research aims at understanding the psychiatric correlates of violent offending, and at creating evidence based treatments for children and adolescents with severe violent and otherwise delinquent behaviors, often presenting with disadvantaged backgrounds, severe developmental difficulties and treatment resistant mental disorders. Adolescent forensic research activities from different European countries are reported in a symposium organized by the EFCAP I EU (umbrella organization for European Forensic Child and Adolescent Psychiatry, Psychology and other involved Professions). Studies from the Netherland will discuss interventions, focusing on explaining reoffending and psychiatric relapse in adolescent forensic psychiatry from Good Lives Model perspective, and on 'academic youth forensic workplaces', collaborative initiatives where science and practice inspire each other in order to generate new intervention methods. A Swiss study will present data on psychopathology, personality and self-reported delinquency in a sample of 592 girls and boys in residential care. A Finnish study discusses young people brought to adolescent psychiatric assessment after threatening school massacre; after the two tragic incidents in the country in 2007 and 2008, the number of such threats multiplied. Another study from Finland explores characteristics of severely and persistently violent girls in secure care, drawing a picture of severely disturbed young people with background strikingly disadvantaged even among adolescent forensic patients.

Keywords: *Delinquency*, *violence*, *adolescent forensic psychiatry*, *epidemiology*, *treatment*

T2-05-05
Why do girls freak out? Exploring female rage among adolescents admitted to adolescent forensic psychiatric inpatient care

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Even if men and boys display greater amounts of aggressive behaviors at large, in an adolescent forensic ward opened in 2003 in Tampere, Finland, the clinical experience suggested that the most severe and treatment resistant violent behaviors in tertiary level secure care are displayed by girls. To advise treatment approaches, research focusing on girls' aggression is needed. This study aimed at exploring the characteristics of girls displaying frequent aggressive behaviors on an adolescent forensic psychiatric ward. In the study unit, demographics, family, treatment, crime and victimization histories, diagnoses and symptom measures used in a structured assessment of all adolescents are collected in a cumulative database. Regarding these, girls displaying excessive aggressive behaviors were compared with other girls, all the boys and boys displaying frequent aggressive behaviors. Their case histories were further qualitatively explored to find characteristics associated with female violence in the literature. The studied girls were the most severely ill among adolescents admitted, and had suffered most the unfortunate backgrounds with parental mental disorders, poor parental management, early caregiver disruption, community disorganization, lack of social support and being victims of sexual abuse. They displayed a wide range of psychiatric symptoms on different symptom dimensions. In order to help these girls, adolescent forensic treatment cannot focus solely on aggression management. Extensive psychiatric needs have to be met in order to successfully intervene to reduce aggressive behaviors of the most violent patients.

Keywords: *Violence*, *aggression management*, *adolescent forensic care*

T2-05-06

Forensic child and adolescent psychiatry and mental health in Europe

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The medical and educational interests of young people who find themselves in the police and justice systems are the main aims of the European Association for Forensic Child and Adolescent Psychiatry, Psychology and other involved professions, EFCAP-EU, which was officially founded in 1997. Two years earlier the first youth forensic symposium was held at the ESCAP Congress in Utrecht, containing eight papers from all over Europe. Other aims of EFCAP are:

- to improve forensic assessment and treatment of children and adolescents in the justice system, as well as of their families
- to improve facilities for these young people
- to facilitate joint international research, and
- to promote international training and education

EFCAP-EU is a federation of some officially founded national EFCAP's like in Finland, Switzerland and The Netherlands, and of working groups in other countries like Germany (Arbeitsgemeinschaft), United Kingdom (unit of the Royal College of Psychiatrists), Italy, Portugal, Spain, Hungary and Turkey. Belgium, Italy, Luxembourg and France are initializing a national EFCAP. Other countries sympathize with EFCAP without having yet formal organizations: Sweden, Norway, Austria, and Ukraine.

EFCAP's activities focus on:

- Since 1995 annual conferences organized in collaboration with EAPL, ESCAP, IALMH; since 2008 biannual EFCAP-congresses on its own: 2008 Amsterdam, 2010 Basel, 2012 Berlin, 2014 London, 2016 Belgium;
- Educational exchange: Finnish and British colleagues came to Holland, Dutch colleagues went to the United Kingdom, Italy and Germany;
- Student projects: Dutch student-trainees in Italy, Spain and UK, a German student in The Netherlands.
- Phd-projects: Dutch phd-student in Germany and UK; PhD-ceremonies in Belgium, Norway and Sweden; Finnish research in Belgium and Holland; Swiss PhD-project with Germany and The Netherlands;
- Practice experiences exchange: Russia, Ukraine.

In this presentation as an introduction to two EFCAP-symposiums, an update will be given of EFCAP's recent activities.

Keywords: *Forensic child and adolescent psychiatry*, *European*, *professional association*

T2-06-01

Efficacy of the treatment program for children with aggressive behaviour—a randomized controlled trial with an active control group

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Objectives: The German Treatment Program for Children with Aggressive Behaviour (Therapieprogramm für Kinder mit aggressivem Verhalten, THAV) aims at the therapy of children aged 6–12 years with peer-related aggressive behaviour, which results in a persistent impairment of the relationships to other children. Contrary to other treatment approaches, this intervention aims at the individual treatment of problem maintaining and moderating factors of aggressive behaviour. Depending on the individual problem maintaining factors the treatment aims to modify social cognitive information processing, impulse control, social problem solving, social skills and social interactions in specific situations.

Methods: The efficacy is evaluated in a randomized control group design with $n = 101$ children. $N = 60$ children are treated for about half a year with the modules of THAV in weekly individual sessions. The control group of $n = 41$ children receives alternative interventions with group play and techniques to activate resources of the child. These interventions give the children the opportunity to train pro-social interactions. Outcome parameters are aggressive behaviour und comorbid symptoms as well as problem maintaining factors, psychosocial functioning, family burden and treatment satisfaction. Moreover, variables of the treatment process are assessed. Questionnaires, tests and individual problem checklist were used to assess these outcome and process parameters.

Results: Reductions of aggressive behaviour, comorbid symptoms and problem maintaining factors could be found both in parent and teacher ratings. The effect sizes are ranging from small to large effects.

Keywords: *Aggressive behaviour*, *conduct disorder*, *cognitive behaviour therapy*, *randomized controlled trial*

T2-06-02

Efficacy and effectiveness of child behaviour therapy

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The efficacy of child behaviour therapy has been proven in randomized controlled trials usually by comparing the intervention with a no treatment condition. Thus many behavioural treatments can be qualified as probably efficacious according to the criteria of the American Psychological Association. However, trials comparing the behavioural interventions with alternative treatment approaches are rare. Therefore in many disorders the general effects of behavioural treatments cannot be distinguished from the specific treatment effects. In this symposium two randomized controlled trials on the efficacy of a telephone assisted self-help intervention for parents of children with externalizing behaviour problems and a comprehensive treatment package for children with conduct/oppositional-defiant disorders will be presented and discussed. Despite the advantages of randomized controlled trials regarding their internal validity, the external or ecological validity of the results of these trials is limited. That is, the generalization of these results to the clinical routine treatment conditions is questionable. Therefore, effectiveness trials, testing the effects of routine behavioural treatment are needed. Two further studies will be therefore presented in this symposium dealing with the effectiveness of behavioural interventions in children and adolescents with a broad spectrum of mental health disorders and with the effectiveness of a telephone assisted self-help intervention for parents of children with externalizing behaviour problems—both in large clinical samples—will be presented. Implications for future research will be discussed.

Keywords: *Child behaviour therapy*, *efficacy*, *effectiveness*, *self-help interventions*, *externalizing behaviour problems*

T2-06-03

Efficacy of guided self-help for parents of children with externalizing behaviour problems—a randomized controlled trial with an active control group

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Introduction: For children with externalizing problem behaviour parent-centered interventions have been proven to be effective in many trials and are recommended. Over the last two decades there was major technical progress in devices for communication and e-learning; furthermore, innovations have become more and more available for the broader public. These advancements make new forms of psychotherapy possible and relevant including telepsychotherapy. If this approach is reasonable and effective in the context of parent-centered interventions for children with externalizing problem behaviour is not sufficiently investigated. Aim of the present study was to test a guided self-help program combining advice booklets for parents and telephone counselling.

Method: Target sample were 146 parents of children aged 4–11 years diagnosed with attention-deficit/hyperactivity disorder (ADHD) and/or oppositional defiant disorder (ODD). This was a randomized trial with an active control group. Families of the experimental group and the control group as well received 8 advice booklets and 10 telephone calls with a psychotherapist. For the experimental group written materials and counselling were based in cognitive behavioural theory and for active control group they were nondirective supportive. To assess treatment effects multiple informants were considered including ratings of clinical experts, parents and (kindergarten) teachers.

Results: Pre–post results of an interim analysis are reported. Findings will be related to treatment effects of conventional parent-centered interventions and to results from other guided self-help programs as well. Pros and cons of this approach and its possible importance in the future for the treatment of children with externalizing problem behaviour will be discussed.

Keywords: *Externalizing behaviour*, *guided self-help*, *telepsychotherapy*

T2-06-04

Guided self-help for parents of children with ADHD: concept and effectiveness

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Introduction: Behavioural parent training is an effective treatment for children with attention-deficit/hyperactivity disorder (ADHD). Because practical and psychological obstacles (e.g., travel time, stigma) often prevent families from accessing therapist-led face-to-face interventions, there is growing interest in the effects of interventions with minimal therapist contact. The aim of the present study was to evaluate feasibility and effectiveness of a telephone-assisted self-help programme for parents of children with ADHD.

Method: This study used a single group, pre-post design. Paediatricians and child psychiatrists informed parents of children with a diagnosis of ADHD about the study. A total of 274 families with children between 6 and 12 years participated. They received eight advice booklets by mail (one booklet every 2 weeks) and 14 weekly telephone consultations (approx. 20 min per contact). The content of the booklets closely follows a self-help book for parents of children with externalizing problem behavior, whose effectiveness as a telephone-assisted self-help intervention has been demonstrated in children with ADHD and/or Oppositional Defiant Behaviour (ODD) and in preschool children with externalizing problem behaviour. 176 families completed the programme (drop-out: $N = 101$).

Results and discussion: Children that participated in the study showed more symptoms of ADHD and had higher SES backgrounds compared with children in an outpatient sample. Children whose parents dropped out of the study differed from those whose parents completed the programme on a number of variables. For example, they were more likely to live in a single-parent household, to have difficulties with peers and to take medication. Intent-to-treat analyses demonstrated significant improvements in parent-reported ADHD-related child behaviours and significant decreases of behavioural problems (especially with peers). Treatment effects were not influenced by children's medication. These results suggest that telephone-assisted self-help intervention is an effective alternative to more intensive forms of behavioural parent training for children with ADHD.

Keywords: *ADHD*, *self-help*, *parent training*

T2-06-05

Is behavioural treatment of children and adolescents in an outpatient setting under routine care conditions effective?

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Background: The efficacy of child behavior therapy has been shown in randomized controlled trials for a large range of disorders. However, the generalization of these results to the clinical routine treatment conditions is questionable because the population referred for treatment and the interventions applied in routine care condition may differ from the study samples used as well as the interventions conducted in randomized controlled study. However, studies on the effectiveness on child behavior therapy in large clinical samples are lacking.

Method: This observational study analyses symptom change during individual child behavior therapy in a sample of more than 950 patients referred for treatment in an outpatient clinic of a school for child behavior therapy using the Child Behavior Checklist which is a parent rating scale covering a broad spectrum of behavioral and emotional problems of children and adolescents. In a subsample of adolescents the Youth Self Report Form (YSR) was used. The Teacher Report Form (TRF) was also used in another subsample. Ratings were obtained at the beginning and the end of the treatment. Moreover, satisfaction with the treatment was assessed after the termination of treatment.

Results: From pre- to post-assessment statistically significant symptom reductions were found on the total problems scales as well as on the Externalizing and Internalizing problems scales. Based on parent rating moderate effect sizes were found. Based on Youth self-report the effect sizes were smaller. Satisfaction with the treatment was high. Overall, routine treatment was found to be effective. The results will be compared to effect sizes found in randomized controlled trials.

Keywords: *Child behavior therapy*, *effectiveness study*

T2-07-01

Coordinated outpatient care for children and adolescents in Germany

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In Germany there is an extensive supply of outpatient care for children and adolescents with ADHD by child and adolescent psychiatrists and psychotherapists (CAPP). As, however, prevalence rates of the disorder amongst children and adolescents below the age of 18 range between 2 and 6 percent, supply is not sufficient for providing comprehensive care. The integrated care concept of the CAPP, incorporating somatic, psychosocial and emotional components of the disorder, should benefit as many ADHD patients as possible. Therefore, over the course of 3 years, CAPP have developed a contract with pediatricians and child and adolescent psychotherapists, which compulsively stipulates cooperation and networking of the three occupational groups. In 2009, this contract was implemented in the German region of Baden-Württemberg with single health insurance funds (BKK and DAK). During the symposium the contents of the contract and the cooperation of the different occupational groups will be introduced. Health care data including patient numbers, numbers of physicians and psychotherapists and data on medication will be presented and discussed against the background of the German health care system. Furthermore, we will present the results of an accompanying intervention study which evaluated the treatment of 224 patients (118 patients in coordinated treatment vs. 110 patients with treatment as usual) over the course of 1 year. Coordinated treatment of children and adolescents with AD(H)D in outpatient services.

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Interdisciplinary Cooperation in Decentralised Outpatient Care Structures.

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Impact of coordinated adhd treatment in Germany. Results of the accompanying study.

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Keywords: *Cooperation*, *networking*, *ADHD*, *evaluation*

T2-07-02

The impact of coordinated ADHD treatment in Germany. Results of an accompanying study

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Introduction: Children and adolescents with ADHD make up an increasingly large share of child and adolescent psychiatric patients in Germany. To improve and ensure quality of treatment, a contract for quality ensured care has been implemented in the region of Baden-Wuerttemberg (Germany). One of its goals is to ensure well coordinated, high quality standardized diagnostics and treatment. The aim of this study is to explore if and how the contract for quality ensured care improves outpatient child and adolescent ADHD care.

Methods: A naturalistic longitudinal non-randomized intervention study compared two groups (quality ensured care vs. treatment as usual). 25 outpatient clinicians (11 paediatricians, 9 child and adolescent psychiatrists, 5 child and adolescent psychotherapists) recruited 228 patients (118 quality ensured care, 110 treatment as usual). 3 measurements were conducted: Baseline, 3- and 12-months-

follow-up. Data were collected by telephone and questionnaire and included standardized measures of quality of life (ILC), strengths and difficulties (SDQ), ADHD symptoms (FBB-ADHD), treatment satisfaction (FBB). Interviews with clinicians about diagnosis and treatment as well as contract implementation and its impact on their practice supplemented patients' data. Summary scores were computed to analyze quality of process and results.
Results: The 228 participants (78 % male) were between 4 and 17 years of age (M = 8.7, Sd = 2.5). 98 % were diagnosed with a psychiatric disorder, for 87 % the ADHD diagnosis was confirmed. 92 % started psychiatric treatment/psychotherapy. There were 157 sets of complete longitudinal data. Patients' symptoms showed significant and clinically relevant improvement in both groups (e.g. SDQ Total Problem score $d_{\text{baseline-12-month as-follow-up}} = 0.57/0.56$). The summary scores for quality of process and results did not differ significantly between groups. However there were indicators of improved patient satisfaction and more multimodal treatment. Service providers stressed improvements with regards to diagnostics and treatment, multidisciplinary cooperation and financial compensation.
Discussion: While the contract for quality ensured care has improved clinicians' multidisciplinary cooperation and compensation, there is no statistical evidence for effects on quality of process and results. Qualitative data however indicated higher patient satisfaction under contract conditions. It is postulated that group differences were overcast by differences in contract implementation and clinicians' ethical aspiration of optimal treatment. Further analysis is required.
Keywords: *Coordinated treatment*, *ADHD*, *naturalistic intervention study*

T2-07-03
Interdisciplinary cooperation in decentralised outpatient care structures

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Since April 2009, the contract for quality ensured care for ADHD patients is being implemented with 78 health insurance funds in the region of Baden-Württemberg (Germany). Patients have got the opportunity to participate in this special care programme for a maximum of 3 years. Currently, 2,740 patients are registered for participation. A total number of 203 physicians and psychotherapists take part in the programme, amongst them 136 paediatricians, 35 child and adolescent psychiatrists and psychotherapists, 28 child and adolescent psychotherapists and 13 psychotherapists. The participating physicians and psychotherapists have formed 45 interdisciplinary ADHD teams.

In order to invigorate cooperation between different specialities participating physicians and psychotherapists join interdisciplinary ADHD teams. A team consists of at least one specialist physician for paediatrics and adolescent medicine, one specialist physician for child and adolescent psychiatry and psychotherapy and one child and adolescent psychotherapist. During the course of the treatment, 558 patients have been unsubscribed because their treatment was terminated or the 3 year period of the programme was completed. 69 patients have so far been unsubscribed due to a negative diagnosis. For the whole course of the care programme, routine data is being collected for purposes of quality insurance and accounting. The first care report was presented 2 years after the initiation of the programme in Mai 2011. It contains structural data as well as sample data on pharmacotherapy within the care programme. The care report showed that ADHD teams had formed in nearly all districts of Baden-Württemberg. Care quality was rated positively on the basis of the first analyses. The sample on pharmacotherapy showed that only 26 % (95 %-CI 20–32 %) of patients who had joined the contract received a medicinal therapy.
Keywords: *Coordinated treatment*, *ADHD*, *outpatient care structures*

T2-07-04
Child and adolescent psychiatric emergency care—opening of a new service and changes in referrals during the first year

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Object: This study examines patient population and flow in a new psychiatric emergency service especially designed for children and adolescents aged 10–17 years and living in an urban area.
Method: Data collection from consultations and admissions during 1 year (2012). Descriptive statistics and perspectivation to other studies.
Results: 1,400 children and adolescents were seen in the emergency department for children and adolescent in a psychiatric hospital. Of these 400 were admitted for short term evaluation and treatment in a short stay unit. Admission criteria were acute suicidality, aggression due to psychiatric disorders or severe distress due to psychosis, depression or other psychiatric illnesses. Mean age at admission was 16 years and admission was three times more frequent for girls than for boys. Average length of stay in the unit was 6.6 days. Parents were admitted together with younger patients. Most frequent diagnosis were affective disorders but all diagnostic categories were seen. Comorbidity was common. Of the admitted patients 12 % were discharged without further treatment, 60 % continued in some form of out patient service and 25 % were transferred to continued admission in specialised settings. Number of readmissions increased during the year and readmitted patients were often very sick adolescents living in social institutions. Geography made a difference for number of consultations but not for number of admissions.
Conclusion: Opening a new emergency service especially designed for children and adolescents led to an increase in number of consultations but not to number of acute admissions.
Keywords: *Child and adolescent psychiatric emergency service*, *emergency psychiatry*, *crisis management*

T2-08-01
Differential diagnosis and treatment of unipolar and bipolar depression in children and adolescents

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Depression is a major problem worldwide and associated with increased risk for suicide in youth. Similar to unipolar depression, bipolar disorder (BD) is mainly manifested by periods of depression [1]; however, depression is underdiagnosed in adults and commonly undiagnosed in youth with BD. Therefore, early identification and treatment of bipolar depression is of vital importance. Moreover, depressed youth with psychosis, pharmacologically induced mania/

hypomania, and family history of BD may be at high risk of developing BD compared to children with unipolar depression, children with bipolar depression were more likely to have severe depression with suicidality, anhedonia, and hopelessness, and had higher rates of comorbid conditions, lower Global Assessment of Functioning (GAF) scores, and higher rates of hospitalization and psychiatric disorders in first-degree relatives [2]. The evidence indicates that the majority of youth with BD have symptoms of depression interspersed with manic symptoms but it is important to consider that DSM-IV criteria for a mixed episode require that criteria for both a manic episode and a major depressive episode are met nearly every day during at least a 1-week period. Clinical presentation of bipolar and unipolar depression may be similar; however, some studies suggested increased atypical depressive symptoms in bipolar depression such as increased appetite and sleep. Given the high rates of morbidity and mortality and chronic course of the condition, early differential diagnosis and treatment of depression youth is a key factor to stabilize mood and prevent an unrecoverable loss in psychosocial development and education [1, 3]. Serotonin reuptake inhibitors are still treatment of choice for medication treatment of unipolar depression. However, in pediatric bipolar depression, there is a lack of controlled studies of pharmacotherapy and the risk for suicide and exacerbating or inducing mania with antidepressant treatment [2].

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Keywords: *Bipolar*, *depression*, *unipolar*, *child*

T2-08-02
Depression in different and difficult situations

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Depressive disorder in children and adolescents is a common condition that affects physical, emotional, and social development. Depression may have different clinical aspects and diagnosing difficulties in terms of comorbidity with the other psychiatric disorders. We aimed to present and discuss about possible a few different and difficult situations in the course of depression in this symposia. Unipolarity or bipolarity should be differentiated by clinicians during childhood and adolescence period so it could not be managed easily. Bipolar spectrum disorders in youths are characterized with subsyndromal and, less frequently, syndromal episodes with mainly depressive and mixed symptoms (Birmaher et al. 2009). In follow-up studies high rates of switching to mania were shown as an important consideration for treatment of prepubertal major depressive disorder because of concerns that antidepressants may worsen childhood mania (Geller et al. 2001). Since the Black Box warning for the use of antidepressants in children, the issue of the risk of suicide is a barrier for the prescription of antidepressants in children with depression. According to a literature review, There is evidence that most of SSRI antidepressants are safe and effective in children with depression. The potential benefits from the use of SSRI's are far bigger that the potential risks (Soutullo and Quintana 2012). Clinical presentation of bipolar and unipolar depression may be similar; however, some studies suggested increased atypical depressive symptoms in bipolar depression such as increased appetite and sleep. Given the high rates of morbidity and mortality and chronic course of the condition, early differential diagnosis and treatment of depression youth is a key factor to stabilize mood and prevent an unrecoverable loss in psychosocial development and education (Birmaher et al. 2006, Chang 2009). Prader-Willi Syndrome (PWS) is a genetically determined neurodevelopmental disorder, which occurs in approximately one in 22,000 births. Children with PWS had more severe somatic, social, and thought problems, and were more withdrawn-depressed in comparison to controls (Skokauskas et al. 2011). As a less known subject, Psychiatric aspects of PWS and comorbidity of depression will be presented in this symposia.

Keywords: *Depression*, *course*, *suicide*, *bipolarity*, *SSRI*, *Prader Willi Syndrome*

T2-08-03
Prader Willie syndrome comorbidity with depression and other psychiatric disorders

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Prader-Willi Syndrome (PWS) is a genetically determined neurodevelopmental disorder, which occurs in approximately one in 22,000 births. The results of our study will be presented in this symposia. We investigated psychiatric characteristics of children diagnosed with PWS compared with an age-, gender- and IQ-matched control group. The parents of children with PWS were assessed for psychological distress in comparison to the parents of the control group. Methodological limitations identified in previous studies were addressed in the present study. Psychiatric problems were evaluated in a sample of children with genetically confirmed PWS and an age- and IQ-matched control group using the Child Behaviour Checklist 6–18. Parental psychological distress for both groups was evaluated with the Brief Symptom Inventory. According to our results, children with PWS had more severe somatic, social, and thought problems, and were more withdrawn-depressed in comparison to controls. Borderline difficulties were detected for the affective, somatic, and attention deficit-hyperactivity CBCL DSM orientated subscales in the PWS group. While the internalizing problems score was higher in children with PWS than controls, the internalising problems score was smaller in the PWS subjects compared with externalising problems; this is in keeping with several previous studies. Parents of PWS children, in comparison to controls, had more somatization, phobic anxiety, obsessive–compulsive, and anxiety problems.

Epidemiological samples are required to further explore psychiatric problems in children with PWS and their parents, and future studies should employ a multimodal assessment approach, which includes multiple measures and multiple informants across settings.

Keywords: *Prader Willi syndrome*, *depression*, *psychiatric comorbidity*

T2-08-04
Antidepressants in children and risk of suicide: Safety results

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There has been substantial concern of late regarding the issue of antidepressant use in children and adolescents. Concern has focussed whether there is an increased risk of emergence of suicidal ideation associated with antidepressants in younger people. In follow-up studies high rates of switching to mania were shown as an important consideration for treatment of prepubertal major depressive disorder because of concerns that antidepressants may worsen childhood mania (Geller et al. 2001). Since the Black Box warning for the use of antidepressants in children, the issue of the risk of suicide is a barrier for the prescription of antidepressants in children with depression, the use of SSRI has decreased and suicide has increased. We performed a literature search on the use of antidepressants in children with depression, and the safety on suicidality. The results of this study will be presented in this symposia. Summary of our results: Suicide is the third cause of death between 10 and 24 years of age. Depression is the first cause of suicide. The treatment of depression prevents suicide. The best treatment for depression is a combination of an SSRI and Cognitive behavioral therapy (CBT). The number needed to treat (NNT) for depression and SSRI in children is 10, and the Number needed to harm for suicidality (ideas of suicide) is 112. Some children may experience suicidal ideation after the prescription on an SSRI, but is far more frequent that these ideas are reduced. Children with higher risk are those with: mania, agitation, of baseline suicidal ideation, they should be monitored closely, and their parents informed. There is evidence that SSRI antidepressants (fluoxetine, citalopram, escitalopram and sertraline) are safe and effective in children with depression. The potential benefits from the use of SSRI′s are far bigger that the potential risks.

Keywords: *SSRI*, *suicide*, *children*, *adolescents*

T2-08-05
Course of the depression in terms of switching to bipolar disorders

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Depression may have different clinical aspects and diagnosing difficulties in terms of comorbidity with the other psychiatric disorders. Unipolarity or bipolarity should be differentiated by clinicians during childhood and adolescence period but it could not be managed easily. Bipolar spectrum disorders in youths are characterized with subsyndromal and, less frequently, syndromal episodes with mainly depressive and mixed symptoms (Birmaher et al. 2009). In follow-up studies high rates of switching to mania were shown as an important consideration for treatment of prepubertal major depressive disorder because of concerns that antidepressants may worsen childhood mania (Geller et al. 2001). Since lack of remission was predicted by more severe depression and the persistence of depressive symptoms during the early phases of treatment, clinicians and researchers should focus their efforts on those patients who do not achieve clinically significant improvement in the first 6 weeks of treatment. Treatment strategies that accelerate response during the initial phase of treatment may hold promise for improving the long-term trajectory for adolescent depression. It was found more prevalent manic symptoms in severe and treatment resistance group and there is a debate for using mood stabilizers in this group. As a risk group of bipolar disorder, the index mood episode in bipolar offspring developing Bipolar disorders was almost always depressive. Depressive episodes tended to recur and preceded the activated episodes by several years. Some previous follow up and family studies confirm these results (Duffy et al. 2007; Blacker et al. 1993; Geller et al. 1994). Depression severity, lower level of functioning, longer duration of depression and presence of manic symptoms predicted membership in a class with less favorable outcome (Maalouf et al. 2012). It has not still known the relationship between treatment resistance depression and bipolar disorders in youth yet. In this presentation, the course of depression and the risks of switching bipolar disorders will be shown according to available follow-up data.

Keywords: *Depression*, *course*, *bipolar*, *unipolar*

T3-01
Social skills training in high-functioning autism spectrum disorder

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Autism spectrum disorders (ASD) are characterized by qualitative impairments in social interaction, reciprocal communication, and by stereotyped, repetitive behaviours. Recent epidemiological studies estimated a prevalence of >1 % for all ASD, with about 45 % showing IQ > 70. The treatment of choice in verbal school aged children and adolescents with ASD and intelligence in the average range (“high functioning ASD” = HFASD) is behaviourally based therapy to improve communication and social interaction with peers and adults. Group-based social skills training (SST) has been advocated as the most efficient treatment option. However, there is a scarcity of randomised controlled studies (RCT) implementing treatment manuals.

The following therapeutic goals should be achieved by SST with HFASD individuals: increase of social motivation and social initiations, improvement of appropriate social responding, reduction of interfering behaviours and promotion of skill generalisation. Effective interventions are predominantly based on social learning theory, framing complex social conventions as rules that can be learned by, e.g., modelling age-appropriate social interaction skills or teaching “social scripts” for common situations, and successively practising social interaction within the group by, e.g., role play, video-modelling and direct feedback as well as outside the group. In addition, operant methods as differential reinforcement of response attempts and positive behaviours are adopted. Some intervention methods also specifically aim at improving social understanding, emotion recognition, perspective taking (i.e. theory of mind abilities), and executive functions as these aspects are specifically impaired in ASD. As the aspect of “generalisation”, i.e. the transfer and appropriate use of an acquired skill in other situations, is crucial for any effective SST program for children and adolescents with HFASD, generalisation sessions are added in several interventions.

The talk will give an overview of previous and current randomised-controlled trials on SST in high-functioning ASD, the overlap and differences between studies, and will discuss further necessary improvements to group-based treatment in HFASD.

Keywords: *Social skills training*, *autism spectrum disorder*

T3-02

Meeting the mental health needs of children and young people with intellectual disability

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The mental health needs of children and young people with intellectual disability has been a long neglected field. More recently, increasing attention has been paid to this disadvantaged and often marginalised group, given our greater understanding of the biological, psychological and social contributors to their developmental, emotional and behavioural challenges, and hence corresponding advances in evidence-based treatments and supports. Degree of intellectual disability, and quality of psychosocial environment and upbringing, have long been recognised as critical determines of likelihood and severity of mental health challenges in this client group. To these, we must now add cause as a crucial variable in determining the natures of challenges faced. Aetiological diagnoses are increasingly possible to make in the fields of developmental medicine, psychology and psychiatry, largely relating to conditions known to have a *behavioural phenotype*. A behavioural phenotype describes aspects of an individual's psychiatric, psychological and behavioural functioning attributable to an underlying (usually biological) condition which has usually occurred early in development. Behavioural phenotypes often contain common challenging behaviours e.g. self-injury, aggression and sleep disturbance. They also manifest as neuropsychiatric syndromes e.g. autism, ADHD, dementia & schizophrenia. Usually they present as social and communicatory profiles or attentional deficits which characterise the underlying condition but which do not necessarily fulfil psychiatric diagnostic criteria. Note that behavioural phenotypes can also manifest as relative absence of developmental and/or behavioural difficulties.

In addition, there is a potentially confusing conceptual clash between traditional diagnostic *clinical* categories such as Autism and ADHD, and the characteristic signature profiles of social, communicatory, attentional cognitive and other psychological functions witnessed in individuals with specific underlying genetic variations. This is exemplified by the experiences and vulnerabilities developmentally of individuals with Down Syndrome, Fragile X Syndrome and Smith-Magenis Syndrome to name but a few. The talk aims to increase awareness of the prevalence, nature and presentation of *aetiologically-driven* conditions in children and young people with and without intellectual disability and why appreciation and knowledge of them is important diagnostically *and* therapeutically.

Keywords: *Child*, *adolescent*, *mental health*, *intellectual disability*, *autism*, *ADHD*, *behavioural phenotype*

T3-03

Accessing mental health services: trials and tribulations

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Mental health disorders occur in approximately 10 % of children aged 5–15 year with many persisting into adulthood. Early and effective interventions are associated with the best outcomes, but many barriers exist in terms of availability and access to MH services, perception of services by service user, and transition from one service to another. Certain groups of children are recognised to be at increased risk of mental health problems and engagement with MH services. Children with physical illness, those with learning disability, or members from various minority groups, such as the travelling community or refugees have higher rates of MH disorders, yet many do not access services. Children who are/were victims of abuse and those in the care of social services are also at increased risk yet access to services, and continuity of care as their placements change pose unique difficulties for this group. Given the enduring nature of some psychiatric illnesses, many young people require transfer of care from CAMHS to adult services. However, the lack of agreed procedures relating to transition can impede the transition process between services, thereby disrupting continuity of care.

This talk with review existing MH services in Ireland, it will present research data on the experiences of certain minority groups, along with a service user's satisfaction with services offered. The speaker will present data from the ITRACK study which outlines the experience of clinicians, patients and carers and identifies the barriers and enablers to effective transition between child to adult mental health services. The MILESTONE project, a proposed EU-wide study of transition from CAMHS to AMHS across eight different healthcare systems, will be presented. The speaker will end considering future direction in terms of increasing awareness of MH disorders in young people, and opportunities to train professionals working with children in the area of MH, so that they may assist in early and appropriate referrals to MH services.

Keywords: *Mental health*, *vulnerable groups*, *access to services*, *transition*

T3-04

Clinical paediatric psychopharmacology

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Problems of mental health and behaviour in children are a multidisciplinary problem and optimal treatment is multimodal. The growth in the use of psychotropic drugs in paediatric populations has given rise to multiple controversies, ranging from concerns over off-label use and long-term safety to debates about the societal value and cultural meaning of pharmacological treatment of childhood behavioural and emotional disorders. Clinical guidelines and data from clinical trials mainly focus on management of single disorders whilst most patients seen in clinic settings present with multiple disorders and are often chronic. Since evidence based practice is difficult due to lack of data, treatment can be individualized based on strengths, target symptoms and situations in which symptoms cause most impairment. Treatment-progress should be monitored through standardized target symptom and side-effect scales. Medication adherence and concordance is improved when parents and patients feel understood, accept that treatment is necessary, and when medication is prescribed using the principles of the minimum effective dosing strategy (MEDS). The MEDS is the minimum dose with which 'acceptable' improvement with minimal side effects is achieved—medication is initiated in small doses (usually in doses that are one-eighth to one-sixth of the final anticipated dose), increasing the dosage after about every five half-lives of the drug, which in practice is usually every 3–7 days, over a period of 4–6 weeks (Santosh 2008). Apart from the medication related neurochemical effect, it influences the inherent 'placebo response' and therapeutic alliance. Clinical trials require large multi-

centre consortiums to answer questions regarding personalised medicine, pharmacovigilance for rare side-effects, development of medication decision-making models etc. Web-based clinical medication-monitoring systems will assist this. This will be illustrated using the example of the HealthTracker^{TM} platform in the Suicidality: Treatment Occurring in Paediatrics (STOP study). Pharmacogenetics and individualized treatment approaches in child psychiatry remain at present a promise for the future. The issues of avoiding undue influence from funders and conflicts of interest remain a prominent concern that can be solved by declaring conflicts and publishing all results of studies extensively. Paediatric pharmacovigilance for psychotropic agents and true long-term studies on efficacy and side effects are essential. Evidence on treatment impact on co-morbid disorders, cost-effectiveness and impact on quality of life is sparse and urgently needs to be addressed. Until such detailed data become available, it is safe to assume that paediatric populations are at least as, or more, vulnerable to adverse effects as adults.
Keywords: *Medication*, *psychopharmacology*

T3-05
Early life modification of our stress systems and depression

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Collaborators: Dr. Kirsten Patrick, Dr. R Moore, Prof. Stafford Lightman, Dr Susan Pawlby, Dr A Papadopulolous.
Acknowledgements: I am indebted to the women who agreed to participate in these studies; to the Medical Research Council, UK for funding the studies.
There is accumulating evidence that our stress system homeostasis is partly determined by the programming of the fetal/baby hypothalamic–pituitary–adrenal (HPA) axis in utero. This influences the development in the emotional circuitry in the adjoining limbic system.[378]Animal studies over the last two decades have provided convincing evidence that baby/pup HPA axis homeostasis and function are programmed by maternal HPA axis during gestation via transplacental cortisol transmission.[3]In the fetus cortisol passes through the blood–brain barrier and, through highly expressed GC receptors [9], alters neuronal formation, myelination, cell survival and synaptic function[45]. Prof. Veronica O'Keane will present her work examining HPA axis function in normal and depressed pregnant women; and the effects of depression on the baby's stress systems. Possible mechanisms of transmission will be discussed.
Conclusions: There is much evidence to support the fetal programming hypothesis in relation to maternal depression and the effects of this on the developing fetal HPA axis stress system.
Conflict of interest: None.
Keywords: *HPA axis*, *pregnancy*, *depression*, *fetal programming*

T3-06
AACAP vision for child and adolescent psychiatry

Paramjit Joshi

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Today, a staggering number of families struggle with a spectrum of conditions that affect the minds and brains of children and, if untreated, limit their ability to live happy, healthy lives. We need to shift our dialogue about Children's Mental health and think differently. In medical school we were taught to think backwards, to diagnose things after they occur, to cure things after they happen. But what if we flipped the model? What if we could look forward, anticipate and intervene before disease begins? Ultimately, it's not just about keeping our children healthy, but about creating a society of healthy adults. As pediatricians and child and adolescent psychiatrists, we are already trained to think forward. We think developmentally: what happens at 2, 4, 8 months, 2 years, how can we prevent, screen, and anticipate. This type of thinking has the power to revolutionize medicine—not just for children, but for all people. We have the tools to anticipate the entire future of a person's health in childhood…. and intervene. Nowhere is that approach more needed than in ensuring the mental health of our children.

I propose beginning with the following steps:

- Accept that mental health is a children's health issue.
- Start screening early.
- Treat the child, not the diagnosis.
- Address genetics.
- Ensure access to care.

We have both a social and moral imperative to support the 1 in 5 children who will need access to care. But it also has a practical imperative… Physically and mentally healthy children are more likely to become physically and mentally healthy adults. These children will grow up and enter our armed forces, our intelligence communities, our workforces and governments. Strengthening early access to mental health strengthens communities and promotes stability and enables a free society.
Keywords: *Intervention*, *health issue*, *screening*, *genetics*

T4-04-01
School programme to promote children's social and emotional competences and well being

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'Together at School' is a programme based on the transactional ecological theory of child development (advanced by Bronfenbrenner, Rutter, Sameroff, Cicchetti, among others), based on the idea that development of a child occurs in transactions with her/his everyday biopsychosocial environment; family, school/daycare, peer relations and leisure time arenas. The aim of our programme is to promote children's social and emotional competences and well being in Finnish elementary schools. According to earlier research the characteristics of effective school interventions are teaching skills, focus on positive mental health, balance between universal and targeted approaches, a lengthy duration and the whole school approach. (Weare and Nind 2011) Our programme consists of several practical tools designed for teachers and head masters to be carried out in class, among the teacher body and in school–home collaboration. The programme is developed together with elementary school teachers in three schools. A pilot study on safety, feasibility and perceived impact was carried out in 4 other schools, informants being teachers' (n = 23), head masters (n = 4), children (n = 451) and their parents. A controlled trial concerning the effectiveness of the program is being designed and will commence in spring 2013 with 43 intervention and 43 control schools across the country. Results of the pilot study and challenges faced when developing and evaluating intervention at schools are discussed at the presentation. Based on our experiences a pilot study is recommended before a large scale trial is conducted in school system. Close collaboration with researchers and school stuff is required because unexpected changes happen at schools and many other events and interests than social and emotional programme compete with teachers' attention and time. Unexpectedly, schools' own registers and evaluation systems could not be used as part of scientific research.

Keywords: *Mental health promotion*, *mental health at school*

T4-01-02

Psychopathology in special education: a challenge for school safety

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Background: Many children with psychiatric problems in The Netherlands attend special education, as in many other European countries. A positive learning environment is important for these children, which can be characterized by school safety. School safety is currently a hot topic in Dutch primary and secondary education and is also part of current political debate. Most children attending special education in The Netherlands are diagnosed with ADHD, autism spectrum disorders, or anxiety disorders, and have additional behavioral problems that may contribute to unsafe school environments. We know little about what children, parents and teachers find important when it comes to school safety in special education.

Objective: This study provides an insight into feelings and experiences of school safety in special education among children, parents and teachers. The aim of this study was to identify specific topics related to school safety that could be regarded as priority topics for future interventions. Children's, parents' and teachers' views and experiences regarding school safety are compared.

Methods: A total of 914 students (response rate ≈ 90 %), 287 parents (response rate ≈ 25 %), and 68 school employees (response rate ≈ 20 %) from 17 primary and secondary special education schools completed an extensive questionnaire on several topics related to school safety, such as bullying, aggression, class management, parental involvement and communication.

Results: For children, bullying appears one of the most important safety topics: 25 % (at primary schools) and 15 % (at secondary schools) of the children reported being bullied very often. By way of comparison, 12 % of the parents reported that their child was bullied very often. Furthermore, parents find it important to get more involved with school. Results also provided information on the wellbeing of teachers in special education, with 37 % of the teachers experiencing frequent verbal aggression between children and 47 % experiencing too much work pressure.

Conclusion: The results emphasize the need to develop and implement specific interventions to improve school safety in special education, especially with regard to bullying and aggression.

Keywords: *School safety*, *special education*

T4-01-03

Special education schools as settings for families change: a collaboration between health, disability and education to improve outcomes for children with an intellectual disability

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Background: Children and adolescents (C and A) with an intellectual disability have a greater risk of developing mental health problems and disorders than the general population. The Children's Hospital at Westmead (CHW) School-Link Initiative has partnered with the NSW state government health, education and disability agencies to support the mental health needs of C and A with an intellectual disability. As schools are considered as community centres they are in a unique position to deliver parenting programs such as The Stepping Stones Triple P Parenting Program.

Objectives: The Group Stepping Stones Triple P Program (GSSTP) aimed to add to the evidence base of mental health promotion, prevention and early intervention programs (PPEI) available for students with an intellectual disability for delivery in a school environment.

Method: The GSSTP was implemented separately in 12 special education schools to parents or carers of approximately 80 children between the ages of 5–11 years with an intellectual disability. Two nominated staff co-facilitated each of the 13 groups: one staff member from the school and the other from the local disability government agency. The standard assessment forms recommended by Triple P were collected from the parents pre and post intervention and were formally evaluated. In addition to the parents/carers the classroom teacher was asked to complete The Developmental Behaviour Checklist (DBC) only for each child.

Results: The results show that after the intervention there was a significant reduction in clinical ranges of the parental Depression-Anxiety-Stress Scales, significant improvements in parental behavioural efficacy and parenting scales, and significant differences in child behaviours as reported by parents and teachers.

Conclusion: Our research suggests that school-based delivery of the GSSTP is an effective early intervention for children with an intellectual disability. Our research also highlights the benefits of working collaboratively across government agencies to deliver better mental health outcomes for children and their parents/carers. Additional by-products of the groups included increased peer support and improved parent/school relations. This is the first report of this mental health prevention and promotion intervention in this setting. Promoting evidence based PPEI for disadvantaged populations such as C and A with ID in schools should have greater priority in service provision.

Keywords: *Intellectual disability*, *group stepping stones triple P*, *parent training program*, *prevention and promotion of MH*, *collaboration*

T4-02-01
The place of food in family relationships among adolescents with and without anorexia nervosa—a qualitative study using photo-elicitation

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Anorexia nervosa is a severe eating disorder characterised by frequent chronic course, high mortality rate and physical and psychiatric complications. Family relationships have an important role in our understanding of the genesis of the condition, in its maintenance, and in caring process. Food, family relationships and anorexia nervosa appear to be the three corners of a same triangle since parents since parents create the eating and dietary environment of the child, and influence dietary behaviors and food choices. The aim of the study we will present is to investigate the place of food in family relationships among adolescents with anorexia nervosa and adolescents without any eating disorder. The parallel between these two populations aims to identify new lines of understanding of anorexia nervosa, and especially its treatment. The research method is qualitative, and uses photo-elicitation, visual narrative method already well-known in the social sciences. This tool consists in using one or several photographs taken by the participant as the basis of the interview. The transcribed data from these interviews was analysed using interpretative phenomenological analysis. 14 adolescents and 18 parents were included. The results can be categorised along three axes of experience:(1) the place of food in a parent–child relational mode, (2) the place of food in the family group, and (3) the individual relationship entertained by the adolescent with food, found solely among adolescents without any eating disorder. The comparison of these two populations enabled new understanding of the family relational deadlock among adolescents with anorexia, and new therapeutic implications to be drawn, such as integrating the *human agency* concept (i.e. the ability of an individual to recognise him/herself as the author of his/her acts) and the peer group dimension into care.

Keywords: *Qualitative research*, *food*, *adolescence*, *family*, *photo-elicitation*, *anorexia nervosa*, *human agency*

T4-02-02
Qualitative studies among obese children and adolescents: a metasynthesis

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Obesity is a major public health issue in which adolescence is a critical period. The prevalence is indeed substantial and obesity causes severe somatic and psychiatric impacts. Family relationships hold an important spot in understanding the genesis of these disorders and their maintaining. Moreover, Family is at the heart of the care. Nevertheless, the link between family relationships and food behaviours is not so clear on a theoretical point of view. Thus, there is a need for new models of understanding and caring, in view of ineffectiveness of long-term usual therapeutics, relying on food behaviour, food diet and exercise. The question of the role of food in family relationships is fundamental for understanding the weight pathologies, and the way to care these conditions. Qualitative research is the best to comprehend complex issues with multiple points of view: medical, cultural, social. We used a phenomenological inductive approach to review 47 qualitative studies. This metasynthesis is a third level of analysis (first, the participant, second, the researcher). It allows to reach an overall view of the phenomenon studied, and so to a greater level of generalisability. As results, the themes derived from the synthesis process fall under three main axes: 'Seeing others, seeing oneself', 'Understanding others, understanding oneself', and 'Treating others, treating oneself'. It emerges that participants in all three groups had equal difficulty in perceiving and labelling obesity, mainly because of their lack of any real common ground. The insufficiency of shared representations destabilizes the therapeutic relationship and its construction: an important issue in the doctor–child–parent relationship in this context is the need to exchange their viewpoints of obesity. Health workers may also expand their understanding of obesity by incorporating the personal experiences of obese children and their parents in order to match treatment plans to their needs and expectations.

Keywords: *Child*, *metasynthesis*, *obesity*, *qualitative research*

T4-02-03
Eating and autistic spectrum disorder

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Issues about eating and Autistic Spectrum Disorder often surface in day to day clinical practice within child and adolescent mental health. Parents frequently raise concerns about their children's faddy eating, as well as unhealthy patterns of eating and resulting obesity. There is also a great deal of controversy over the choice of treatment for ASD, with complementary and alternative treatments often being explored by parents. A range of dietary approaches have been recommended, with anecdotal evidence showing some positive gains. Given the frequency with which these issues occur within clinical CAMHS services, this seminar will provide a brief overview of ASD before focussing in more detail on faddy eating, obesity and dietary treatment and how these difficulties present in day to day practice.

Faddy eating in ASD: People with ASD may be extremely faddy eaters. They become very distressed when trying any new foods and have a strong preference for foods of a particular colour. They may also only accept processed foods with familiar packaging, and become distressed in some meal-time environments where it is too noisy or if they can smell other foods. These children only eat food that is presented in a consistent way and live on what seems like an unhealthily restricted diet.

ASD and obesity: A large number of young people with subtle neurodevelopmental difficulties are referred to child and adolescent mental health services each year due to concerns about emotional and behavioural problems. These young people present with substantial elements of ADHD, Autism, dyslexia, dyspraxia, OCD and Tics. The difficulties which these young people experience relate predominantly to the way in which they process complex sequences of internal and external information. This includes their processing of somatic sensations including taste and satiation. Young people with subtle processing problems therefore often struggle with impulsive eating, unhealthy eating and obesity.

Dietary treatment and ASD: Although diets are a popular treatment for ASD, there is a lack of consistent and good quality scientific evidence. However, a minority of individuals with ASD do seem to find that their specific behaviour or bowel problems improve with dietary changes. Some of the most common dietary treatments include exclusion or avoidance of gluten and casein, exclusion of food additives, exclusion of phenolic compounds and foods high in salicylates, a yeas-free diet, high doses of Vitamin B6 and magnesium, and fish oil and other fat supplements rich in Omega 3 fats.

Keywords: *ASD eating*

T4-02-04

Getting the measure of males

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Adolescence is a developmental period with the greatest risk of developing eating disorders (EDs) (Ackard, Fulkerson and Neumark-Sztainer 2007). However, research has paid little attention to EDs in adolescent males. Furthermore, adult measures are typically used to assess adolescent eating disorders (Micali and House 2011). Instruments such as the Eating Disorder Inventory-3 (EDI-3; Garner 2004) and the Eating Attitudes Test-26 (EAT-26; Garner, Olmsted, Bohr and Garfinkel 1982) are used worldwide however data regarding their application with men in clinical and nonclinical populations is lacking (Cumella 2006). Lack of validity regarding the factor structure of the EDI-3 and EAT-26 may generate substantial biases in results obtained. For example, measures fail to tap the desire to gain weight and muscle mass which are important constructs to explore in male populations (Darcy et al. 2012). Furthermore, another important gender difference widely known is that women diet to lose weight while men usually exercise to lose weight. Thus, given the dearth of research in this area, the present study aimed to examine the factor structure of the EAT-26 and the EDI-3 among male adolescents. Data consisted of participants selected from the previously published large-scale EPICA study (N = 3,031) (McNicholas et al. 2010). The current study included a non-clinical male adolescent sample (N = 1,119), aged 13–18 years, from 52 Irish randomly-selected schools. Exploratory factor analyses (EFA) of the EDI-3 showed differences between the extracted factors for Irish males and Garner's published subscales (2004). Results included the replication of the three factor structure of the EDI-3 Eating Disorder Risk Scales (EDRS) explaining 54.5 % of the variance. However, two new modified factors; 'Body Image Disturbance and Dieting Preoccupation' and 'Body Satisfaction' were identified. Recommendations are made pertaining to necessary future research and clinical practice with adolescent males.

Keywords: *Eating disorders*, *males*, *adolescence*, *measures*, *eating disorder inventory-3*, *eating attitudes test-26*, *assessment*

T4-03-01

Ethnic variation in antisocial behaviour among adolescents: risk and protective factors

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Background: Aims: (1) to examine ethnic variation in self-reported antisocial behaviour among adolescents, (2) to determine if variation can be explained by differences in the young person's bonds to society, and (3) to explore the risk and protective factors for delinquency among the different ethnic groups.

Methods: We did a cross-sectional survey. Participants were 327 adolescents recruited from a London secondary school and divided into six ethnic groups namely, White British, White others, Middle East/Arabs, Bangladeshi/Pakistani and Mixed. Self-report questionnaires addressing juvenile antisocial behaviour, family cohesion, family obligation, religious affiliation and worship (Religiosity), and the Strengths and Difficulties Questionnaire were completed.

Results: Three measures of substance use showed significant ethnic variation: alcohol use, public drunkenness and use of cannabis, with the White British group the most likely to have exhibited such behaviour and the Bangladeshi/Pakistani and Middle East/Arab the least likely. A similar, but non-significant, trend was also observed for use of other drugs (cocaine, heroin and LSD). The White British group also displayed the greatest versatility in their antisocial behaviour. ANCOVA results showed that gender, family obligation, religiosity and pro-social attitudes significantly predicted antisocial behaviour versatility and total score of antisocial behaviour, explaining 19 and 19.6 % of the variance respectively.

Conclusion: Ethnic differences in relation to family factors including parental marital stability, attitudes to traditional family life, and religiosity may help explain the lower levels of some types of antisocial behaviour through the mechanism of stronger ties to family and pro-social activities.

Keywords: *Ethnicity*, *antisocial behaviour*, *adolescence*

T4-03-02

Influence of empathy on the development of proactive aggressive behavior in early school-aged children.

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Objective: Aggressive behavior in children has been associated with empathy. However, inconsistent results have been reported, possibly due to the lack of further refinement in subtyping of both empathy and aggressive behavior. Besides, studies on the predictive value of empathy on the course of aggression are lacking. In the present study, the role of empathy in response to sadness and distress of others was

examined on the development of proactive aggressive behavior over time in 6–7 year old children with ADHD with or without disruptive behavior disorders and healthy control children.

Methods: In a longitudinal study, proactive aggressive behavior was determined by parent and teacher questionnaires in a sample of early school age children with ADHD with or without disruptive behavior disorders and healthy control children (total $n = 163$). A first assessment was made in a sample of 6–7 years olds, a second at follow up 12 months later. At baseline, a selection of sadness and distress related questions from the Griffith Empathy Measure were scored by parents and teachers.

Results: At the first measurement wave, high parent-reported proactive aggressive behavior was associated with low levels of parent reported empathy ($r = -0.30$, $p < 0.001$). High teacher-reported proactive aggressive behavior was associated with low levels of teacher-reported empathy ($r = -0.46$, $p < 0.001$). At follow-up, both parent- and teacher-reported proactive aggression were significantly predicted by proactive aggression at T1. Parent-reported proactive aggression was further predicted by parent-reported empathy at T1 (beta -0.28, $p < 0.001$).

Conclusion: The present study found associations between proactive aggressive behavior and empathy in response to sadness and distress of others as reported by both parents and teachers. The development in proactive aggression over time was significantly predicted by parent-reported empathy. This suggests assessment of empathy might be of value in the assessment and treatment of young children with proactive aggressive behavior.

Keywords: *Empathy*, *aggressive behaviour*, *children*

T4-03-03

Measuring anger expression in young patients with Tourette's syndrome

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Aims: Tourette syndrome (TS) is a neurodevelopmental disorder characterized by multiple tics and co-morbid behavioural problems. It has been observed that young TS patients can exhibit a peculiar personality organization, with increased indicators of poor emotional control and aggression compared to healthy controls (Balottin et al. 2009). Anger could play a central role in the expression of behavioural problems in TS. We set out to evaluate this aspect using the State-Trait Anger Expression Inventory (STAXI).

Methods: Twenty-five patients diagnosed with TS (age 15.4 ± 2.6 years) and 41 matched-healthy controls (age 16.3 ± 2.9 years) participated in this study. All recruited participants completed the STAXI. Participants' parents completed the Child Behaviour Checklist (CBCL) and Conners' Parent Rating Scales-Revised (CPRS-R), teachers completed the Conners' Teacher Rating Scales-Revised (CTRS-R). Results were compared with similar data obtained from controls.

Results: Sixteen patients (64 %) fulfilled DSM-IV-TR criteria for at least one co-morbidities: obsessive–compulsive disorder (OCD, $n = 9$; 36 %): attention deficit-hyperactivity disorder (ADHD, $n = 3$; 12 %); OCD + ADHD ($n = 4$; 16 %). Scores on STAXI failed to show any significant differences between TS and controls, as well as between TS + ADHD and TS-ADHD subgroups. However, most subscores of the CBCL, CPRS-R and CTRS-R were significantly higher for the TS group than controls (CPRS-R-Oppositional, CBCL-Externalizing, Rule-Breaking and Aggressive Behaviour subscales).

Conclusions: Specific self-report measures of anger such as the STAXI appear to have limited usefulness in measuring anger expression of young TS patients. However, proxy-rated instruments differentiate this patients from healthy subjects on measures of oppositional and aggressive behaviours and should always be included in the multidimensional assessment of TS.

Keywords: *Tourette syndrome*, *anger*, *STAXI*

T4-03-04

Intercorrelations of anxiety/depression with anger, hyperactivity, conduct, self-esteem, hopelessness and suicidality at one clinical adolescent sample

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Introduction: In our clinical work is not rare that we encounter the presence of some abnormal levels in more than one psychological dimension; especially among adolescents.

Objectives: Measure the presence of anxiety and depression, having in mind possible correlation with psychological difficulties (emotionality, hyperactivity, conduct, peer problems), anger, self-esteem, hopelessness and suicidality of adolescents in one clinical sample.

Methods: The sample of adolescents consists of cases referred/treated at Mental Health Unit. Cases fill out Depression Self-Rating Scale For Children, The Revised Children's Manifest Anxiety Scale, Children's Inventory of Anger, Hopelessness Scale For Children, Rosenberg self-esteem scale, SDQ questionnaire and one item from DSRSC about suicidal tendencies. All data has been analyzed by SPSS 14.0.

Results: Sample size $N = 64$ adolescents; 56.3 % male vs 43.8 % female; urban 67.2 % vs rural 32.8 %; mean age 13.73. Regarding clinical diagnoses: 17.2 % of them were in the assessment phase or had no diagnosis; 18.8 % anx. disorder; 7.8 % had anxious-depresiva disorder; 10.9 % depression and Conduct disorder; etc. A clinical level of self-reported anxiety had 29.7 %, depression 18.8 % of the sample. Anxiety has resulted in significant positive correlation only with the component of Emotionality and Suicidal tendencies. Depression has resulted in significant positive correlation with Hopelessness, Self-esteem and Suicidal tendencies. Anxiety and depression have significant positive correlation between. We have found no significant difference based on gender and place of residence. The depressed group has significant difference from the no-depression group because there is more difficulty in total SDQ, emotional, hyperactivity, peers and have higher self-esteem and higher anxiety. Anxious group has significant difference from the no-anxious group because there is more difficulty in total SDQ, emotional, peers and have higher self-esteem and depresivity. Kruskal–Wallis test also found significant group difference where cases with abnormality level of Emotionality, Hyperactivity, SDQ total, higher hopelessness and suicidal tendencies had higher levels of depression, but in the case of anxiety difference was in cases of group with abnormality level of Emotionality, Hyperactivity, SDQ total, and group with suicidal tendencies were significantly more anxious.

Conclusions: We have found significant correlation between anxiety and depression. Correlations of anxiety and depression are different with other variables (except with suicidal tendencies). Abnormal levels of emotionality, hyperactivity and SDQ in total resulted with significantly higher levels of depression and anxiety. Normal self-esteem and higher hopelessness resulted with significantly higher levels of depression but not anxiety.

Keywords: *Anxiety*, *depression*, *adolescents*, *correlations*

T4-04-01

Characteristics of NSSI in an in-patient sample

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Introduction: In adolescence, non-suicidal self injury (NSSI) can occur without any psychiatric disorders, but is often associated with a number of diagnoses (e.g. depression or anxiety disorders). Community studies show an onset age between 12 and 14 years and a higher risk for girls than boys to engage in NSSI.

Objective: To investigate characteristics of psychiatric adolescent patients with and without NSSI.

Method: In-patients (N = 93) from 3 departments of child and adolescent psychiatry in Germany (Ulm, Heidelberg, and Berlin), aged 13–18 years (M = 14.9), were interviewed using the German version of the Self-Injurious-Thoughts-And-Behaviors-Interview (SITBI-G) and completed a questionnaire concerning NSSI (SHBQ). Data about their diagnoses and overall psychosocial functioning, as well as general demographics, were obtained.

Results: Adolescents engaging in NSSI were more often diagnosed with a depressive or an anxiety disorder, as well as a combined disorder of conduct and emotions. Average age of onset was M = 12.2 years (SD = 2.5). More girls than boys engaged in NSSI. No association with levels of intelligence or overall psychosocial functioning was found.

Conclusion: Results of this clinical German sample are in line with previous international findings. In an in-patient sample of adolescents, NSSI seems to be most often associated with depressive or anxiety disorders. Also, it seems to be more prevalent in girls than boys. Age of onset was at the younger end of the average onset age in international community samples (12 years), which could either be due to the sample being psychiatric inpatients or could be following the trend of NSSI being reported to start earlier in life in recent studies. In this study, NSSI was not associated with levels of intelligence or overall psychosocial functioning, which is discussed controversially in literature.

Keywords: *NSSI*, *clinical sample*, *SITBI*

T4-04-02

A randomised controlled trial of a programme for parents and full-time carers of young people with self-harm or suicidal behaviour.

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Background: The SPACE Programme is an eight-session group programme for parents and carers of young people with deliberate self-harm (DSH) or suicidal behaviour, which aims to improve parental well-being and participants' satisfaction with parenting. Initial evaluation in an uncontrolled study showed it to be effective, leading to evaluation by a randomised controlled trial (RCT) in the present study.

Method: Participants were 147 parents and full-time carers of young people with suicidal behaviour or DSH. Having completed a socio-demographic questionnaire, general health questionnaire (GHQ-12), Kansas parenting satisfaction scale (KPS), strengths and difficulties questionnaire (SDQ), multimodal scale of perceived social support (MSPSS), and the General Functioning Scale of the McMaster Family Assessment Device (FAD), they were randomly allocated to the next space programme (SP), or to a waiting-list control group (WLC). Measures were repeated at comparable time points for both groups after completion of the SPACE programme and at 3 month follow-up. The primary outcome was improvement in parental mental well-being as measured by the GHQ-12.

Results: Over 80 % of participants across both groups scored within the 'caseness' range on the GHQ-12 at baseline. A mixed between-within subjects ANOVA for those who completed all three assessment blocks ($n = 65$) showed significant improvement in parental well-being across both groups over time, with gains maintained at 3-month follow-up, $F\ (2, 126) = 24.11$, $p = 0.00$, $\eta^2 = 0.277$. The interaction effect of intervention X time was significant, $F\ (2, 126) = 4.75$, $p = 0.01$, $\eta^2 = 0.07$, as was the main effect of intervention, $F\ (1, 63) = 8.66$, $p = 0.005$, $\eta^2 = 0.121$, which indicated a significantly greater improvement in well-being for the SP group. Although significant improvement occurred over time across both groups for parenting satisfaction and for participants' rating of their young person's difficulties, there was no significant difference between SP and WLC groups for either factor. There was no significant change in perceived social support or family communication over time for either group.

Conclusions: Parents and carers of young people with self-harm or suicidal behaviour who completed the SPACE Programme had significantly greater improvement in well-being than controls, which was maintained at three-month follow-up, indicating that the programme may be a beneficial means of support to such individuals. Further studies are necessary to clarify the specific factors which contribute to this improvement.

Keywords: *Suicidal behaviour. DSH*, *RCT*, *parent support*

T4-04-03

Effect of comorbid attention deficit hyperactive disorder on the onset of first depressive episode and suicide behavior in Hungarian youths with major depressive disorder

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Background and aims: It is documented, that the comorbid condition of major depressive disorder (MDD) with attention deficit hyperactive disorder (ADHD) leads to more serious impairments and poorer prognosis of MDD. We aimed to explore the effect of ADHD on some specific features (onset, suicidal behavior) of MDD in a sample of depressed Hungarian children. We also investigated the prevalence rates of the different ADHD subtypes in this sample.

Subjects and methods: The study sample (N = 593) was selected from a larger Hungarian sample of children with MDD in order to evaluate depressed children without ADHD and other externalizing disorder (n = 472; 219 boys) and children with comorbid MDD and ADHD (n = 121; 101 boys). The mean age of the sample at the assessment was: 11.75 years (sd: 2.02). For the diagnoses, the age of onset of MDD and the suicidal behavior, subjects were assessed by a comprehensive, DSM-IV based semistructured interview (Interview Schedule for Children and Adolescent P, L) as it was administered to the parent and separately to the youth. To measure the severity of the suicide behavior we created a DSM-IV symptom based suicidal scale (range 0–5).

Results: Children in the comorbid group were significantly younger at the first MDD episode (9.61 ± 2.25 years) than MDD children (10.78 ± 2.25 years; $p < 0.000$). Both girls and boys were also significantly younger in the comorbid group comparing to the girls and boys in the MDD group respectively. The majority of the kids in comorbid group were diagnosed with combined subtype of ADHD (n = 90). However, there were only 6 patients in the hyperactive/impulsive type (4.95 %), they were the youngest on average at their first depressive episode (8.15 ± 3.03 years). Both girls (2.35 ± 1.69) and boys (2.02 ± 1.78) showed higher score on the suicidal scale in the comorbid group comparing to the girls (2.14 ± 1.92) and boys (1.65 ± 1.79) in the MDD group. Still, there was no significant difference between the comorbid and MDD group (2.07 ± 1.76 and 1.91 ± 1.87 respectively) on the suicidal scale.

Conclusions: ADHD not elevated significantly the severity of suicide symptoms in our considerably large depressed sample of Hungarian children. Nevertheless, our results contribute to the literature that is reported the negative effect of ADHD on the onset of major depression in children and adolescent. Moreover, children diagnosed with hyperactive/impulsive subtype of ADHD were the most vulnerable to earlier MDD onset in our sample.

Keywords: *Major depression*, *ADHD*, *comorbidity*

T4-05-01

Attention network dysfunction in patients with bulimia nervosa—an fMRI study

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Introduction: Patients with bulimia nervosa (BN) have an increased comorbidity with ADHD and share key symptoms such as impulsiveness and maybe inattention. The underlying neural network for executive control (impulse inhibition) has previously been shown to be hypoactive compared to healthy controls (HC) (Marsh et al. 2009, 2011). The neural correlates of more basic attentional networks, however, have not been studied before in patients with BN, albeit their potential importance for a better understanding the underlying pathophysiology.

Methods: We conducted an fMRI study with 20 BN and 20 matched HC (aged 15–23) using a modified version of the Attention Network Task (mANT, Fan et al. 2002). Participants also completed interviews and questionnaires regarding the degree of impaired eating (EDI-II, SIAB), comorbidities (BDI-II, SCL-90, SKID) and especially ADHD-like symptoms (ADHD-SBB, WRI, WURS-K).

Results: As shown before, our patients with BN had increased impulsivity- and inattention-scores compared to HC. Surprisingly, we could show hyperactivity in BN for the more basic alerting network, while the more complex reorienting and inhibition networks showed hypoactivation. Also, primary visual and basic motor areas were found to be hyperactive, while "higher order" fronto-striatal and parietal areas showed hypoactivity.

Conclusion: Patients with BN appear to be more fundamentally impaired on a neuronal level than previously thought. We discuss the hypothesis, that these patients potentially need more neuronal resources for basic tasks. This might leave less capacity for more complex inhibition tasks, possibly responsible for the increased impulsivity found in these patients.

Keywords: *Eating disorder*, *Bulimia nervosa*, *fMRI*, *attention*, *impulsivity*

T4-05-02

Outcome of early-onset anorexia nervosa

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Introduction: Recent studies found evidence for increasing incidence rates especially in early-onset AN (age of onset ≤ 13) (Favaro et al. 2009; Nicholls et al. 2011). This finding is alarming as onset of AN during childhood often has detrimental and even irreversible effects by interrupting physical and psychological development such as alterations in linear growth, impaired bone mineral accretion, and structural and functional brain changes (Katzman 2005). However, there is a lack of knowledge on prognostic relevance of age of onset on long-term outcome and also on the parameters influencing outcome of early-onset AN.

Methods: In a multisite follow-up study on the early-onset form of anorexia nervosa, we reexamined 75 % of 69 former patients who had developed anorexia nervosa at the age of 13 years or younger. We made a standardized assessment of eating disorder symptomatology and psychiatric comorbidities with structured interviews based on the criteria of DSM-IV and self-report questionnaires.

Results: According to the general outcome classification (Morgan-Russell scales) about 40 % had a good, one-third an intermediate and about one-fourth a poor outcome. More than 20 % of the former patients met the diagnostic criteria for a current psychiatric disorder according to DSM-IV. Univariate analyses revealed BMI at admission and at discharge as relevant prognostic factors for BMI at follow-up.

Conclusion: The results of our follow-up study are comparable to those of prior investigations on long-term outcome in childhood and adolescent AN. However, future research is needed to investigate the factors that might improve long-term prognosis in these patients.

Keywords: *Early onset anorexia nervosa*, *outcome*

T4-05-03
Diagnostic issues for anorexia nervosa

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Our conceptualization and perception of anorexia nervosa (AN) is determined by the diagnostic criteria. We discuss current diagnostic issues concerning the classification of AN by reference to the proposed criteria of the fifth version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). We strongly welcome the changes in the latest revision of DSM-5 (update April 2012), which in our opinion partially solve the previously delineated classification problems. However, the DSM-5 criteria do not include (a) a reference to an easy to use standard or reference(s) for the weight criterion (the main text will potentially allude to such a reference), (b) a reference to starvation related (mental and physical) symptoms would in our opinion offer a better solution to the vague and general reference to health and (c) a better operationalisation of observable behaviors including symptoms of disordered eating, readily accessible cognitions and a better allowance for cross-cultural aspects. Furthermore, the term '*restriction of energy intake relative to requirements*' appears unwarranted as diagnosticians usually have no means to reliably assess energy intake and requirements; they are merely able to infer this behavior via the observation of e.g. restrictive eating, hyperactivity and/or underweight. The term '*seriousness of the current low body weight*' is vague in that even physicians have no clear cut method for a standardized staging. We would support further changes in light of the fact that DSM-V will apply for the upcoming 15–20 years. We deem this discussion very worthwhile to achieve higher diagnostic sensitivity, specificity and reliability.

Keywords: *Anorexia nervosa*, *diagnostic criteria*, *DSM-5*, *classification*

T4-05-04
Food addiction-fact or fiction?

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Currently, the concept of "food addiction" is subject to a highly controversial scientific debate. From a neurobiological perspective, experimental image and animal studies give rise to the assumption that the reward system might be involved in disordered forms of overeating. Medically established forms of addiction so far pertain to substance use disorders only. But the preliminary Diagnostic and Statistical Manual for Mental Disorders V (DSM V) suggests replacing the previous category 'Substance-Related Disorders' with 'Addiction and Related Disorders', thus for the first time allowing the diagnosis of behavioral addictions. In the past psychiatrists and psychologists have been reluctant to systematically delineate and classify the term behavioral addiction. However, there is a broad overlap between chemical and behavioral addiction including phenomenological, therapeutic, genetic, and neurobiological aspects. From a clinical point of view, the diagnostic criteria for substance use disorder fail to fully meet the clinical picture of "food addiction". Subtypes of obesity that are associated with binge-eating disorder can be considered with the context of "food addiction". It is of interest to point out that the hormone leptin in itself has a pronounced effect on the reward system, thus suggesting an indirect link between overeating and 'chemical' addiction. Thus, leptin-deficient individuals could be classified as fulfilling criteria for "food addiction". We will review psychological and neurobiological findings in chemical (substance based) and subsequently in behavioral addiction to analyze the overlap between chemical and behavioral addiction. Further, we will discuss the diagnostic validity of "food addiction", which in theory can be chemically and/or behaviorally based (Albayrak et al. (2012) Obesity Facts 5:165–179).

Keywords: *Sugar*, *high-fat diet*, *substance use disorder*, *food*, *obesity*

T4-05-05
State and trait marker in anorexia nervosa

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With regard to state and trait marker research in anorexia nervosa multiple hormones and peptides have been analyzed (e.g. leptin, ghrelin, IGF-1, estrogen, LH, FSH, TSH). The serum concentrations of these parameters in patients with anorexia nervosa were compared with those in healthy controls at different states during the illness course (acute state of starvation, during weight restoration and after weight restoration). Hypoleptinemia as a state marker is the most consistent finding; a leptin level of <2 μg/L implies a high sensitivity and specificity for screening purposes (Föcker et al. 2011). The impact of peptides as orexin A, nociceptin and fatty acid binding protein for state and trait in AN remains unclear and is subject of debate. Despite of its presumed implications for feeding regulation, nociceptin serum concentrations have not been measured in patients with anorexia nervosa. With regard to orexin A and fatty acid binding protein studies show inconsistent results. Furthermore kit based metabolomics seems to be a suitable approach to detect deranged biomarkers in AN (Föcker et al. 2012). Using a targeted metabolomics approach, we analysed 163 metabolite concentrations in 29 patients with AN in the acute stage of starvation (T0) and after short-term weight recovery (T1). Thirty-three of the metabolite serum levels were found significantly different between T0 and T1. At the acute stage of starvation (T0) serum concentrations of 90 metabolites differed significantly from those of healthy controls. Concentrations of controls mostly differed even more strongly from those of AN patients after short-term weight recovery than at the acute stage of starvation. We conclude that AN entails profound and longer lasting alterations of a large number of serum metabolites. Together with these metabolic, neuropeptide and endocrinological parameters, the BMI as a diagnostic criterion also plays an important role as state and trait marker. The premorbid BMI is associated with the BMI at admission (Coners et al. 1999) and with the BMI at discharge in AN patients (unpublished data).

Keywords: *State*, *trait*, *endocrinology*, *metabolomics*, *BMI*

T4-05-06
Recent findings in diagnosis, neurobiology and outcome of eating disorders

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In our symposium, S. Knoll, Essen, Germany will discuss current diagnostic issues concerning the classification of anorexia nervosa

(AN) by reference to the proposed criteria of the DSM-5, which might partially solve the previously delineated classification problems. Nevertheless, further changes in light of the fact that DSM-V will apply for the upcoming 15 to 20 years might be necessary to achieve higher diagnostic sensitivity, specificity and reliability. Incidence rates for early-onset AN (age of onset $\leq$ 13) seem to be increasing. This finding is alarming as onset of AN during childhood often has detrimental and even irreversible effects by interrupting physical and psychological development. To date, the impact of age at onset on long-term outcome of AN is contradictory. K. Bühren, Aachen, Germany will report the data of a German multisite follow-up study in patients with a childhood-onset form of AN four to eleven years after discharge from inpatient treatment. M. Föcker, Essen, Germany, will discuss the role of several hormones and peptides as trait and state markers during the course of the illness. Leptin levels might be helpful for screening purposes and kit based metabolomics seem to be a suitable approach to detect deranged biomarkers in AN. The impact of peptides as orexin A, nociceptin and fatty acid binding protein for state and trait in AN remains unclear and is subject of debate. In patients with bulimia nervosa (BN), the underlying neural network for impulse inhibition has previously been shown to be hypoactive compared to healthy controls (HC). J. Seitz, Aachen, Germany will present data from a recent fMRI study with 20 BN and 20 HC differentially analyzing underlying attentional networks. Patients with BN showed hyperactivity for the more basic alerting network, while more complex reorienting- and inhibition-networks showed hypoactivation. A potential hypothesis for this finding will be discussed. Ö. Albayrak, Essen, Germany, will discuss the concept of "food addiction". Recent neurobiological findings give rise to the assumption that the reward system might be involved in disordered forms of overeating. He will review psychological and neurobiological findings in chemical (substance based) and in behavioral addiction to analyze the overlap between both forms of addiction and discuss the diagnostic validity of "food addiction".

Keywords: *Eating disorders, outcome, DSM-V, food addiction, neuroimaging, neuropeptides, trait and state markers*

T5-01-01

Phenotypic and genetic analysis of tail chasing in dogs—suitable animal model for human OCD?

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Obsessive compulsive disorder (OCD) is a neuropsychiatric disorder observed both in humans and animals. Human OCD is known to be influenced by both genetic and environmental factors, and the same holds for canine compulsive behaviour. Further similarities between canine compulsive disorder (CD) and human OCD include early-onset and response to medication such as serotonin reuptake inhibitors (SSRIs). The first genetic evidence for canine compulsive behaviour was found in Doberman Pinchers, where CDH2 was found to associate with compulsive flank sucking-behaviour (Dodman et al. 2010). Excessive tail chasing (TC), light/shadow chasing and flank sucking are among the most frequently observed spontaneous and breed specific examples of CD. Our aim was to study the phenotypic and genetic characteristics of compulsive TC in dogs, including possible environmental and personality correlates. We performed a questionnaire survey to investigate the characteristics of compulsive tail chasing and its possible associations with environmental correlates and personality in a pet population of 368 dogs from four dog breeds [Bull Terriers, Standard BT and Miniature MBT; Staffordshire Bull Terriers (SBT) and German Shepherds (GS)]. We also collected DNA samples from all the breeds, by taking a blood sample. Furthermore, DNA samples were collected also from French dogs and a candidate gene approach was used to test the association of TC with the CDH2 locus. In total 456 individuals have been analysed in genome-wide association analysis (GWA). We observed an early onset of TC at 3–6 months of age and a large variation in TC frequency in all breeds. Interestingly, dogs that received dietary supplements, especially vitamins and minerals, expressed less TC compared to dogs that did not receive any supplements ($p < 0.001$). This was especially clear in Bull Terriers. Our rough categorization of the dietary supplements into five main groups revealed that fewer tail chasers received vitamins and minerals, especially vitamin B6 compared to the control-dogs. Dogs receiving vitamins and minerals (especially vitamin B6 and C) also chased their tails less compared to the dogs not receiving these micronutrients. Although this association needs verification, there exist also observations of the positive effect of vitamins on human OCD. Neutered females had less TC ($p = 0.008$), suggesting an influence of ovarian hormones on TC. Tail chasers were also shyer ($p < 0.001$) and had separated earlier from their mothers than the controls ($p = 0.036$). Our candidate gene association study did not find an association between TC and CDH2, a locus previously associated with the canine flank sucking compulsion; however the pedigrees suggest a strong genetic contribution in all of the breeds. The preliminary results of our on-going genome-wide association study have not reached genome-wide significance, although there are several interesting novel loci. In conclusion, the early-onset and the variable nature of the repetitive behaviour, which is affected by environmental factors such as micronutrients, neutering and maternal care, share several similar components between canine and human compulsions and supports canine TC as a model for human OCD.

Keywords: *OCD*, *animal model*, *tail chasing*, *genome-wide association study*

T5-01-02

Methylphenidate side-effect profile is influenced by genetic variation in the ADHD-associated CES1 gene

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A naturalistic, prospective study of the influence of genetic variation on clinical response to stimulant medication in 77 children with ADHD was undertaken. The influence of genetic variation of the CES1 gene coding for carboxylesterase 1A1 (CES1A1), the major enzyme responsible for the first-pass, stereoselective metabolism of methylphenidate was investigated. Parent and teacher-rated

questionnaires were collected at baseline when the children were medication naïve, and again at 6 weeks whilst they were on medication. Medication dose, prescribed at the discretion of the treating clinician, was recorded at each time-point. Blood and saliva samples were collected for genotyping. Single nucleotide polymorphisms (SNPs) were selected in the coding, non-coding and the 3′ flanking region of the CES1 gene. Analyses were conducted using ANCOVA and logistic regression models. None of the CES1 gene variants was associated with the dose of methylphenidate provided or the clinical response recorded at the 6-week time point. An association between two CES1 SNP markers and the occurrence of sadness as a side-effect of short-acting methylphenidate was found. The two associated CES1 markers were in linkage disequilibrium and were significantly associated with ADHD in a larger sample of ADHD trios. The associated CES1 markers were also in linkage disequilibrium with two SNP markers of the noradrenaline transporter gene [SLC6A2]. This is the first study to examine whether genetic variation at the CES1 gene influences methylphenidate treatment response in medication naïve children with ADHD. These novel findings indicate new research directions for pharmacogenetic studies of methylphenidate in ADHD.

Keywords: *ADHD*, *CES1A1*, *CES1*, *methylphenidate*, *side-effects*, *NET*, *sadness*

T5-01-03

Methlyphenidate treatment in attention-deficit hyperactivity disorder: What do we know about the mechanism of action of methylphenidate?

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It is estimated that around 5 % of the children and adolescent worldwide suffer from attention-deficit hyperactivity disorder (ADHD). ADHD is one of the most frequent psychiatric disorders occurring at this age group. To date, the most frequent and successful pharmacological treatment in ADHD is the use of stimulants, in particular methylphenidate. Methylphenidate is used in the clinic already over 50 years as therapy for ADHD with very high effect size. Although a great deal of information regarding its effects and side effects was gathered in this period of time, many questions are still open regarding its mechanism of action. In our laboratory, we are currently investigating in vitro as well as in neuronal cell culture its mechanism of action using biochemical, genetic and molecular approaches. We could find that methylphenidate influence the activity of various enzymes involved in monoamine metabolisms. In the cell culture models, we could demonstrate how different concentrations influence proliferation and differentiation of the neurons, as well as the transcription of transporter, receptors and synaptic proteins important for neurotransmission. Furthermore, we did not only investigate the effect of the racemic form given usually for treatment in ADHD, but also investigate the individual effects of each enantiomer: the D-threo- and L-threo-methylphenidate, since it is postulated that the D-threo-methylphenidate predominantly exerts the effects seen in ADHD. The importance of further investigating the mechanism of action of methylphenidate lies on the fact that methylphenidate prescriptions seems to increase in the last century, while still the multiple effects of methylphenidate has not been fully discovered.

Keywords: *Methylphenidate*, *attention-deficit hyperactivity disorder (ADHD)*

T5-01-04

Risk factors and clinical correlates of CNVs associated with autism spectrum disorders: evidence for joint contribution of genetic and environmental risk factors

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Background: Emerging evidence on the association between copy number variants (CNVs), a type of DNA structural variation, and neurodevelopmental disorders provides a new vista on understanding unique and pleiotropic susceptibility to neurodevelopmental disorders such as autism spectrum disorders (ASD). Specific CNVs have been associated with a range of phenotypic manifestations that characterize several neuropsychiatric disorders including ASDs, schizophrenia, bipolar disorder and attention deficit disorder. Therefore, rather than the traditional approach of attempting to identify genes for particular diagnoses, we investigate CNVs affecting brain-related genes or genes previously implicated in ASD/intellectual disability (ID) as risk factors for sub-phenotypes. We hypothesized that individuals carrying rare CNVs that impact genes implicated in ASD/ID, or preferentially brain expressed genes, would be more likely to present with general developmental anomalies, including non-verbal status, seizures, gait disturbances, lower IQ and adaptive function.

Methods: Rare CNV and detailed phenotype data were derived from the Autism Genome Project (N = 1,590 cases). Patients were classified by the presence or absence of a rare CNV that impacts genes previously implicated in ASD/ID, or that are differentially brain expressed, and association with candidate neurodevelopmental phenotypes were examined. Random forests and mixture models were used to explore whether phenomic features identify CNV-defined sub-groups.

Results: Paternal age and broader domains of adaptive function was associated with brain expressed genes. Deletions in ASD/ID risk genes were associated with poorer performance on measures of language and communication. The mixture models resulted in seven classes for females, but no obvious solution for the sample as a whole. Among females, adaptive function, IQ measures and language-related variables were more strongly differentiated than other variables. The random forests showed great variability of the classification accuracy for the selected measures in this study.

Discussion: These analyses demonstrate the importance of the investigation of both genetic and environmental factors that may underlie neurodevelopmental disorders, such as ASDs, as well as sub-phenotypes that may represent more direct links with biologic and genetic pathways underlying these disorders.

Keywords: *Copy number variation*, *autism spectrum disorders*, *multivariate phenotypes*

T5-01-05

Neuroimaging studies in pediatric patients with obsessive compulsive disorder before, after and at 2 years follow up of cognitive behavioral therapy

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Background: Neuroimaging studies of children and adolescents with obsessive compulsive disorder reveal abnormalities in fronto-striatal circuits. However little is known how cognitive behavioral therapy changes this neurobiological basis of obsessive compulsive behavior.
Aim: The aim of this study is to find out which neurocircuits change after cognitive behavioral therapy in pediatric obsessive compulsive disorder and the neurodevelopmental course of affected children compared to their healthy companions.
Method: 29 medication free children and adolescents with an obsessive compulsive disorder (age range 9–19, mean 13.8) were scanned in an MRI-scanner before, after and at 2 year follow up (N = 17) of 16 sessions of cognitive behavioral therapy. 29 age and gender matched healthy controls were scanned in the same manner. Structural and functional scans were made. Structural scans were analyzed with SPM 8 using VBM DARTEL tool. During the functional scans a planning paradigm (Tower of London), an error monitoring task (Flanker task) and a task for selective attention (DOT probe task) were executed. Functional data were analyzed with SPM5.
Results: Patients show on a structural level regional gray and white matter volume differences with healthy controls before treatment, especially an greater volume of gray matter in the frontal pole and insula. After treatment OCD patients show an increase of regional grey matter volume in the orbitofrontal cortex. White matter volume shows an increase in bilateral capsula externa. Functional imaging during planning revealed an hypoactivation of dorsolateral and parietal structures before treatment. After treatment this difference ceased to be significant. Error monitoring showed only in elderly patients more activation of the rostral anterior cingulate cortex which did not change after CBT. The selective attention task showed more hippocampal activation before treatment which normalized after treatment. At 2 years follow up VBM data showed still the same effect in grey matter volume of orbital frontal cortex. Effects were most prominent at youngest age.
Conclusion: Cognitive behavioral therapy in children and adolescents with obsessive compulsive disorder changes the volume and function of certain brain regions especially in dorsal and ventral fronto-striatal circuits these changes last for at least 2 years.
Keywords: *Obsessive–compulsive disorder*, *neuroimaging*, *cognitive behavioral therapy*, *orbito frontal cortex*, *VBM*, *fMRI*

T5-02
Managing aggression in an inpatient CAMHS Unit

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This workshop explores techniques of managing children with poor emotional regulation in an inpatient setting. Children and adolescents admitted to an inpatient unit with problems of aggression have usually had a variety of measures which include various forms of individual training as well as family interventions to help them control their aggression, tried in the community. This talk focuses on techniques to be used in an inpatient setting by professionals to help children manage their aggression.
Speaker1: Looks at why children develop aggression with particular emphasis on the development of aggression on the Ward. It looks at diagnostic rubrics including ''Severe Mood Disregulation'' and the interplay of symptoms associated with Attachment Disorders, social communications skills, impulsivity leading to an inability to control emotion. It also looks at the proposed changes with the upcoming publication of the DSM V.
Speaker2: Talks about environmental and Behavioural techniques. Developing a whole Ward approach to the management of aggression. Management of aggression starts with the design of the unit. This talk looks at features that need to be in place at the point of acceptance, where the patients are received, the therapeutic care as well as characteristics of seclusion areas. It also looks at development of ward policies which promote a sense of harmony and tranquillity in the Ward. It also looks at development of behavioural programs as they apply to the whole unit.
Speaker3: pharmacological treatment algorithm for aggression that looks at the development of protocols for rapid tranquilisation. The drugs that are used, the safeguards that the need to be in place before rapid tranquillisation as well as maintenance of records during and after tranquillisation. The talk also looks at maintenance drugs that can be used in an aggressive patient.
Speaker4: this talk focuses on techniques used by staff to promote calmness and decrease the level of aggression in the Ward. It talks about staff do's and don'ts; includes the usage of body language as well as verbal techniques that can be used. The talk deals with the stages of the rate cycle the characteristics of each stage and the interventions that are effective in each stage. These techniques have been shown to reduce the amount of control and restraints which needs to be used on the Ward.
Keywords: *Inpatient*, *aggression*

T5-03
Child abuse and neglect from international perspective: what works?

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Introduction: This Quality of Care symposium will focus around a well-described case of child abuse and neglect. Presenters from the Netherlands, USA, Israel and Hungary will comment on this case from diagnostic, treatment and own national childprotective service perspectives.
Goal: To deliver critical comments from different international law and medical perspectives so as to get a better understanding of what aspects matter and are prone to different interpretations and implementations of child protective measures.
Methods: A chosen case of child abuse and neglect will be described in detail using a power point presentation. Each speaker will comment on diagnostics, treatment and child protective aspects of this particular case. The speakers will comment on each other's presentation. The public will get the opportunity to raise questions and discuss aspects of the presented case from their own national professional perspective.

Results: After presentation and discussion at the ESCAP symposium an article on the case reflecting the presentation and discussion will be submitted for publication in an international journal.

Discussion: Apart from reports from the UN and international collaboration projects such as the Daphne project, International discussion on child abuse and neglect by child and adolescent psychiatrists and allied professionals needs to be facilitated by these professionals themselves in order to define what works in diagnosis and treatment of child abuse and neglect.

Keywords: *Child abuse and neglect*, *international perspectives*, *diagnosis*, *treatment*, *childprotective services*, *childprotective measures*

T5-04

Disordered, bad or just a victim of circumstances: the debate and quality of care of CD/ODD in three European countries

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Conduct and oppositional disorders (CD/ODD) amongst the most common child psychiatric problems with prevalences of about 5 %, forming up to 40 % of the caseload of child and adolescent mental health services. Children and particularly adolescents with CD also place a large burden on educational services, youth and social services, the police, the criminal justice system and in fact society at large. There is much debate in many European countries about who should be responsible for the management of these youngsters, how good outcomes are best achieved and who should pay for it all. Within countries there are not only regional differences, but also different (ethnic) sectors of society make different use of services provided. In child psychiatry the debate continues. What is the nature of these problems? Are they mainly biological/temperamental as some recent studies suggest, are they mainly attachment problems or are they just linked to inconsistent parenting or wider social disruption? Do we need to reconsider classification (e.g. by adding a callous unemotional subtype as DSM 5 proposes)? And what about treatment? Is taking the child into residential settings useful? Should medication be used at all? Or should we mainly concentrate on early intervention and prevention and who should deliver this? The evidence is scarce and relatively mixed. Attitudes about conduct disorder touch the very core of human believes about freedom of choice against social or biological determinism. No wonder that different European countries approach ODD/CD in different ways. We start with a short anthropological introduction looking at historical and cultural conceptualizations of CD, which might still influence practices today. We then center on one or two case presentations. Each presenter, an expert on CD, will discuss the current approach to evaluation and treatment in his or her country, reflecting guidelines, standards and/or state of the art practices in the countries represented. In the UK much work has been done in recent years with the nationwide Psychological Therapies Initiative and in the Netherlands multi-modal systemic therapies and more formal PMT are becoming increasingly available. Both countries have recently renewed their guidelines, but implementation might lack behind. In Germany one focus has been the high risk group of institutionalized children with CD and multiple traumatic experiences. Similarities and differences in guidelines and state of the art approach will be highlighted, with ample time for discussion from attendees.

Keywords: *Conduct disorders*, *oppositional disorders*, *quality of care*, *treatment*, *guidelines*, *evidence-based*, *family therapy*, *trauma*

T5-05-01

Maternal brain responses to baby-stimuli are modulated by psychopathology

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Introduction: Parenting constitutes evolutionarily conserved attachment behaviours and thoughts contributing to caring responses to infant cry. We have shown that maternal brain responses to baby-cry in reward regions predict parental sensitivity—also known to be a function of mental health. In this functional magnetic resonance imaging study, we study whether: mothers at risk for depression will have inhibited self-reflection/empathy brain responses in response to personalized messages about parenting.

Methods: We assessed 18 mothers of 2–7 year-old children for previous episode of major depressive disorder (MDD) and previous psychopathological risks as axis I disorders and child abuse. We also administered the working model of the child interview (WMCI). In a Phillips 3 T scanner, participants experienced tasks based on identity-primed baby-cry and personally tailored messages from their own responses to the WMCI. All data were analyzed with SPM 8.

Results: For the baby-cry task: Listening to "a baby-crying" vs. white noise activated salience-related extended amygdala and insula, according to cumulative psychopathological risk. Listening to "your baby-crying" vs. "a baby-crying" activated reward-related and salience regions of nucleus accumbens, and hippocampus. Listening to "you yourself as a baby-crying" vs. "a baby-crying" activated anxiety/stress-related regions of middle frontal gyrus, caudate, posterior insula, and habenula proportionally with cumulative psychopathological risk. To benchmark the regulation between positive and negative motivations, we contrasted "you yourself as a baby-crying" with "your baby-crying" and, as predicted, mothers with higher cumulative psychopathological risks reduced activations in nucleus accumbens and hippocampus associated with positive motivation, but enhanced responses in hypothalamus, midbrain, amygdala, caudate, anterior-cingulate-cortex (ACC), insula, and habenula associated with negative emotions of fear/avoidance. For the interview task: personalized feedback vs. control activated self-reflection regions of dorsomedial-prefrontal-cortex, precuneus, posterior-cingulate-cortex (PCC), ACC and middle-temporal-gyrus (MTG). According psychopathological risk, responses were lower in PCC and precuneus with altered connectivity to MTG.

Conclusions: Human parenting thoughts, behaviors and neural correlates are driven by key stimuli like baby-cries. Previous mood and anxiety appear to alter parental brain responses, suggesting opportunities for intervention and improved child mental health.

Keywords: *Maternal*, *brain*, *behavior*, *fMRI*, *postpartum depression*

T5-05-02

Psychopathology in infancy and its link with later psychopathology: the paradigm of borderline personality disorder

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The major difference between the developmental psychopathology viewpoint and the traditional perspective of psychiatry is its conceptualization of mental disorder not as an inherent trait that resides in an individual but as something that emerges from the dynamic interplay between intrapsychic and environmental contexts. Patterns of continuity and discontinuity over development are especially interesting; change is always thought possible with the caveat that the likelihood and degree of change is constrained by prior history and the current context. The concept of resilience is especially interesting and complex, because recent data has shown that specific genes are involved in predicting resilient functioning by modifying the impact of environmental risks on behavioral outcomes. Egger et al. (2006) have indeed shown that almost any psychiatric disorder can start at a very young age, though prevalence of specific disorders change over time. We have chosen the example of borderline personality disorder as a paradigm for understanding development of psychopathology from infancy into adulthood and its transmission through disturbed parenting behaviors. With the help of a clinical case, we will show the relevance of basic concepts of developmental psychopathology (such as resilience, vulnerability, brain development, early attachment relationships, temperament, relational life events, parenting behaviors, theory of mind development, interpersonal relationships) to the understanding of the impact of early traumatic loss added to the context of distorted family relationships, neglect and abuse, on the unfolding of borderline personality development disorder and complicated PTSD in young adulthood, and its transgenerational transmission from parent to child. Through these basic concepts, we will show how much infant psychiatry is linked with prevention and/or early treatment of later psychopathology, and we will emphasize the need for studying in depth the continuities and discontinuities of psychopathology in infancy, as defined by the Diagnostic Classification in the first 3 years of life (DC0-3R), ICD 11 and DSM V. We will end with the main therapeutic implications of the developmental psychopathology approach in child and adolescent psychiatry.

Keywords: *Infancy*, *developmental psychopathology*, *borderline personality disorder*

T5-05-03

Father's internal representations and their role in shaping infant mental health

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This clinical article presents an overview of the literature to date on father's internal representations and their contribution in shaping early attachment relationships with their infants. Analogous to the development of healthy mental health in infants and toddlers is the compelling evidence that early experiences matter and that healthy parental representations contribute to the development and consolidation of secure attachment and healthy parent–child interactions. Freud's early psychoanalytic theories have stressed the important contribution of the father in the early years of a child's life. Cultural and societal norms have also had their impact in shaping understanding of the contribution of the father in the caregiving system. Implicit in this system is the need to fully understand the interaction between parent and infant. Attachment theory and research has focussed heavily on the maternal contribution, in particular the role of the mother's internal working model in understanding secure and insecure attachment relationships (Benoit Parker and Zeanah 1997; Zeanah 2000) and its impact in the development of the child's emotional regulation. The changing role of the father in this 21st century sees many more men in fulltime daily caregiver roles. However, there has been limited focus in research on the contribution and impact of father's representations on infant's social and emotional development or in the gender difference that exist between maternal and paternal internal representations (Vreeswijk, Maas and Van Bakel 2012) or later pathology (Fitzgerald and Zucker 2006).

Understanding the nature and quality of father's psychological contribution to the social and emotional health of their infants is required; in particular the understanding of how subjective states of the father shape their internal representations of their attachment relationships with their children. The Working Model of Child Interview (WMCI) is a valid and reliable interview assessment which evaluates the parent's internal working model of their relationship with their young child. This article will also propose that the schedule provides a measure of the parent's internal representation in the parent–child relationship, its use in evaluating the role of paternal representations in developing and consolidating the infant and toddler mental health will be discussed.

Keywords: *Fathers representations*

T5-05-04

Fetal size and eating behavior in childhood: the generation R study

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Background: Childhood eating behavior problems are a contributing factor to severe morbidity in children, and may lead to obesity and eating disorders. An increasing body of evidence suggests that the fetal environment can exert a profound impact on fetal development and long lasting effects on child and adult health. It is unknown, however, whether eating behavior at age 4 years has detectable antecedents during fetal life.

Objective: To investigate whether fetal size is associated with childhood eating behavior.

Methods: Data were drawn from 4,370 children at the age of 4 years as part of the Generation R study, a population-based prospective cohort study starting in early fetal life. Fetal size was measured during the second and third trimester by ultrasonography and at birth by clinical measurement. Eating behavior at the age of 4 years was evaluated by the Child Eating Behavior Questionnaire.

Results: Higher levels on children's Satiety Responsiveness were associated with a lower estimated fetal weight in the third trimester and a lower birth weight standard deviation score (SDS) after adjusting for other determinants of fetal size and eating behavior at age 4 years. Both Food Responsiveness and Enjoyment of Food at age 4 years were related to an increased estimated fetal weight in the third trimester and birth weight SDS. Eating behavior at age 4 years was not associated with fetal size in the second trimester. The negative association between children born small for gestational age (birth weight SDS < -2.0 SDS) and Enjoyment of Food at age 4 years, disappeared after correcting for covariates. Children born large for gestational age had a lower score on Satiety Responsiveness (OR 0.44, CI 95 % 0.21–0.91) and a higher score on Food Responsiveness (OR 2.32, CI 95 % 1.33–4.03) and Enjoyment of Food (OR 1.96, CI 95 % 1.12–3.44) after full adjustment.

Conclusion: Fetal size could be a developmental marker of eating behavior in childhood, especially in children born large for gestational age. While this research represents an important step toward understanding the complex etiology of the origins of eating behavior, more research is needed to further understand consequences for the prevention of obesity and eating disorders in childhood.

Keywords: *Fetal size*, *eating behavior*, *ultrasonography*

T5-05-05

Alcohol exposure in pregnancy and cognitive development at school age: a Brazilian longitudinal study

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Alcohol consumption during pregnancy has been associated with changes in physical, neurological and behavioral of children, and the consequences on child development are widely varied in extension and severity. In Brazil, studies have shown that the prevalence of alcohol dependence in women is 5.7 % and approximately 22 % of women consume alcohol at risk levels to the fetus during pregnancy. The damage caused by alcohol in the development of children depends on the pattern of maternal consumption, stage of gestation in which exposure to alcohol occurred in addition to other risk factors such as genetic factors, maternal and fetal metabolism, nutritional status of the mother, use of other drugs, health condition of the mother, maternal age and socioeconomic level. Studies have shown consistent evidence of association between heavy alcohol consumption during pregnancy and development of FAS, however results of studies on consumption levels low to moderate are still controversial. This study evaluated the cognitive development of 86 school age children in relation to socio-demographical data and pattern of maternal alcohol consumption during gestation using Columbia Mental Maturity Scale (CMMS). Differences were observed among age deviation scores (ADS) above mean and higher maternal age ($p = 0.01$), higher birth weight ($p = 0.05$) and higher parity ($p = 0.04$). Analyzing the sample by gender, we observed lower mean scores in boys whose mothers used in days any quantity of alcohol during pregnancy higher than mean ($p = 0.01$) and also in those whose mothers used three or more doses of alcohol per occasion during pregnancy above mean ($p < 0.0001$). Low/moderate alcohol use during pregnancy was associated to lower cognitive performance, particularly in boys. In summary, use moderate of alcohol during pregnancy was associated with lower cognitive performance in male children. Despite the effects of prenatal exposure to alcohol in children's cognitive development are widely documented, the data obtained so far have been controversial, especially with mild/moderate alcohol exposure during pregnancy, possibly due to the different designs used and the complexity of the analysis the various factors pre-and postnatal-related outcomes. Controlled studies with a larger number of cases and the introduction of biological markers of alcohol exposure during pregnancy are required in order to enable an early detection of side effects, a better understanding of the severity and extent of damage in cognitive functions and identification of cognitive disorders that may be more affected by prenatal exposure to alcohol, providing an early intervention possible deficits found. In relation to maternal report on alcohol consumption during pregnancy, our results showed higher levels of consumption obtained from prospective data compared with the retrospective. In general, studies have considered the prospective data on prenatal exposure to alcohol more accurate and valid when compared to retrospective data because of recall bias.

Keywords: *Alcohol consumption in pregnancy*, *school children*, *cognitive development*

T5-06-01

A cross sectional survey of the mental health requirements of children with 22qdeletion syndrome in Ireland, and how these are being met

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22q11 Deletion Syndrome, also known as Velo-cardio-facial syndrome, arises as a spontaneous mutation in 80 % of cases, and is autosomal dominant in inheritance. It is the most multi anomaly chromosomal disorder occurring in approx. 1/2,000. Rates of psychiatric disorder are significantly increased yet routine screening is not in place in many countries. Research suggests that co-ordinated care for this group with attention to mental health needs leads to earlier diagnosis and better treatment outcomes. Yet parents of children with 22Q11DS report that the risk of mental health disorder is rarely discussed with them by their health care provider. It is also recognised that the presence of MH disorders in children leads to additional stressors in the parent, yet despite the very high rate of MH problems in this cohort, little is known about the qualitative experience of parenting a child with 22Q11DS and a higher than usual rate of mental illness. There are no co-ordinated programmes in Ireland addressing both the physical and mental health needs of this vulnerable and high risk group. This study presents the findings of a postal survey sent to 40 families on the "22q Association" database. Unmet mental health needs and psychiatric disorders present significant stresses for families with 48 % parents rating mental health and psychological wellbeing as their top concern for their child. Routine psychiatric evaluations are perceived by nearly all parents (95 %) to be essential in the overall management of children with 22q11DS, yet currently not available, despite their unprecedented high rate of psychiatric co-morbidity. The study authors will also present initial data on MH screening of children with 22q11DS referred from their paediatric colleagues. A proposal for a psycho-educational parenting group will be presented. Utilising a qualitative approach, focus groups will be conducted to gather information regarding the experiences of caregivers, their views on what supports might be helpful to them in understanding and managing MH issues and any other parenting stresses associated with parenting children with 22q11. Collaboratively with focus group participants, themes for inclusion in the psycho- education programme will be identified.

Keywords: *Pediatric consultation-liaison psychiatry*

T5-06-02

Shared experience of developing paediatric consultation liaison psychiatry in Singapore

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The history child psychiatry in Singapore dates back to the 1970s with its humble beginnings as a part-time clinic sited in the community. It has since fully established itself as a department of child and adolescent psychiatry in a tertiary mental health institution in the 1980s. The practice of pediatric consultation liaison psychiatry (PCLP) has hitherto been largely limited by the structure and physical location of the department within a mental hospital. With recognized awareness of how psychiatry must complement pediatric medical care, a child and adolescent mental wellness service (CAMWS) was set up in 2010 within the country's largest pediatric hospital, Kerbang Kerbau Women's and Children's Hospital (KKWCH), one of two public hospitals with pediatric services. CAMWS serves inpatients and outpatients, the latter being referrals from other doctors within the hospital. Common diagnoses included adjustment and stress-related disorders, ADHD, and mood and anxiety disorders. The service complements psychological care provided by the hospital's pre-existing psychological and medical social work departments. In April 2012, CAMWS has also set up a multidisciplinary team comprising allied health staff to work in the community to support schools, GPs and Family Service Centers located in the eastern sector of the country. Linking medical and psychological components of a patient's condition, and facilitating communication among patients, families and doctors, have emerged as one of the most challenging in addition to physical space and manpower constraints. Common problems included lack of adequate knowledge and training of nursing and medical staff in managing agitated, psychiatrically unwell or suicidal patients. Standing protocols and treatment algorithms for common psychiatric conditions in children and adolescents were also lacking. Besides evaluating and treating developmental, behavioural, and psychological problems in children and adolescents in the medical setting, the PCLP clinician must possess adequate understanding of medical illnesses, as well as a general knowledge of procedures, medications, hospital routines, and medical outcomes for children and adolescent patients. They must engage paediatric colleagues through regular dialogue sessions and case discussions, and partake in co-training of junior doctors and nurses. By incorporating medical education, research and clinical services into CAMWS's developmental organization can the PCLP team then be able to support paediatric colleagues adequately and meaningfully, and to achieve the best clinical outcomes for medically ill children and adolescents.

Keywords: *Pediatric consultation-liaison psychiatry*

T5-06-03

Health care utilization of patients with somatoform disorders admitted to the neurology unit at a tertiary pediatric facility in the United States

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This presentation is a part of proposed symposium.

"International Perspectives on Pediatric Consultation-Liaison Psychiatry".

Chair Norbert Skokauskas (Ireland).

Co Chair Patricia Ibeziako (USA).

Health Care Utilization of Patients with Somatoform Disorders admitted to the Neurology Unit at a Tertiary Pediatric Facility in the United States.

Background: It is common in pediatric health care settings for youngsters to present with psychosomatic symptoms. Many of the studies related to the health care utilization of these patients in have been conducted in the outpatient setting and/or with adult patients only but there is paucity of literature regarding patients with somatoform disorders on inpatient medical units in the pediatric setting.

Methods: This was a cross-sectional study with retrospective electronic medical record reviews of inpatient neurology patients with somatoform disorder seen by the Psychiatry Consultation Service (PCS) at Boston Children's Hospital from 2010 to 2012.

Results: 70 electronic medical records were reviewed. 66.7 % of patients were female, 83.3 % were 12 years and older with mean age of 14 years (range 8–20 years). 47.2 % had a length of stay of 3 days or more. 59.7 % had other consults in addition to psychiatry during their medical admission. 53.5 % had visited other medical institutions prior to the target medical admission on the neurology service. 61.1 % had a prior history of psychiatric treatment. 30 % were on psychotropic medications during their admission. After the PCS evaluation, 56.9 % were diagnosed with conversion disorder, 23.6 % pain disorder, 12.5 % somatoform disorder NOS and 6.9 % undifferentiated somatoform disorder.

Conclusion: Medically hospitalized patients with somatoform disorders have high utilization of health care services at pediatric facilities. This study was an initial step in the development of hospital guidelines and quality improvement initiatives for the assessment and management of these patients.

Keywords: *Pediatric consultation-liaison psychiatry*

T5-06-04

Autoimmune encephalitis in children; It's recognition, management and neuropsychiatric sequelae

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The historical perspective of autoimmune encephalitis in children and a brief overview of *N*-Methyl-D-Aspartate receptor encephalitis is presented. Four cases of NMDA encephalitis who presented with a variety of neuro psychiatric manifestations to a paediatric liaison service are discussed including the complexities of diagnosis and management. The pathogenesis of acute encephalitis is divided into infection and immune mediated mechanisms. This presentation will focus on immune mediated encephalitis and the impact of neuropsychiatric sequelae on children and their families. Immune mediated mechanisms can result in specific encephalitis, limbic encephalitis or neuromyelitis optica. Antibodies to neuronal surface antigens such as NMDA receptors, leucin-rich glioma inactivated 1 (LGI1) and aquaporin 4 are discussed briefly. Anti NMDA Receptor Encephalitis is the main focus of this presentation. *N*-Methyl-D-Aspartate receptor (NMDAR) encephalitis was first identified in 2007 (Tuzun E, Dalmau J), Florance NR, Davis RL, Lam C, et al. The first cases with antibodies to NMDAR were females with ovarian tumours (Dalmau J, Tuzun E, Wu HY et al.). However, there have been new cases that did not have any malignancy. The cases presented here fall into the latter category The importance of child and adolescent mental health professionals being aware of these conditions is essential as children can present with psychiatric symptoms, including behavioural and psychotic symptoms prior to the neurological or other medical manifestations of encephalitis becoming evident. In the acute stage of the illness the neuropsychiatric symptoms can be prominent and difficult to manage. The sequelae may also include significant psychiatric symptomatology. Close collaboration between the liaison psychiatrist and neurologist in these conditions is essential. The current knowledge base regarding treatment is still patchy with use of typical antipsychotics still playing a role. It is hoped that discussion of these challenging conditions will lead to clarity regarding how best to manage neuropsychiatric problems in these children in the acute stage of NMDA and other autoimmune encephalitis'.

Keywords: *Encephalitis neuropsychiatric*

T5-06-05
Global collaboration for pediatric consultation-liaison psychiatry

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Pediatric consultation-liaison psychiatry (PCLP) is a subspecialty of psychiatry that incorporates clinical service, teaching, and research at the interface of psychiatry and pediatrics. This symposium aims to promote the use of evidence based clinical practice and innovative research in developing quality outcomes in PCLP. This symposium is sponsored by the World Psychiatric Association, Child and Adolescent Psychiatry section (WPA CAP). WPA CAP is in a unique position to convene colleagues and professional organizations in order coordinate our efforts on the World stage. The symposium will cover several subtopics. First, WPA CAP initiatives and the implementation of clinical practice guidelines/protocols to standardize and improve PCLP service delivery and medico legal aspects in PCLP will be described and discussed. The second part of the symposium will focus on the latest scientific research in PCLP. A cross sectional survey of the mental health requirements of children with 22q11 Deletion Syndrome in Ireland and a study on Health Care Utilization of Patients with Somatoform Disorders admitted to the Neurology Unit at a Tertiary Pediatric Facility in the United States will be presented. Common practical problems and challenges PCLP face in North America, Europe and Asia will be also discussed. The organizers hope that this forum will serve as a platform for future collaboration to improve and to develop PCLP services Worldwide.

Keywords: *Pediatric consultation-liaison psychiatry*

T5-07-01
"It worked for me": an evaluation of computerised cognitive behavioural therapy to treat depressive symptoms in sexual minority youth

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Purpose: Findings from population-based studies in Europe, North America and Australasia indicate that sexual minority youth (i.e. young people who identify as lesbian, gay or bisexual and adolescents questioning their sexuality) disproportionately experience depression in comparison to their opposite-sex attracted peers. Sexual minority youth also report having difficulty accessing appropriate help for their emotional worries. As a group sexual minority youth with depression also face other issues, such as geographical and/or social isolation and the double stigma of having a psychiatric condition and being non-heterosexual. The challenge then is to find ways of overcoming the barriers in order to deliver effective treatment to this group. Computerised cognitive behavioural therapy (cCBT) offers a way forward. The primary aims of this study were to obtain preliminary data on the efficacy of a purpose-developed cCBT program and to gather qualitative user feedback.

Methods: SPARX is an interactive multi-media cCBT program set in a fantasy world. We created Rainbow SPARX by customising certain content from SPARX, after consulting with sexual minority youth during a series of focus groups. We carried out an open-trial of Rainbow SPARX amongst sexual minority youth with depressive symptoms. Changes in Child Depression Rating Scale-Revised (CDRS-R) scores and secondary measures over time were analysed using t tests. Participants provided feedback on Rainbow SPARX after using the intervention via semi-structured interviews. We used thematic analysis based on the general inductive approach to investigate common themes from the interviews.

Results: The depressive symptoms on CDRS-R of sexual minority youth ($n = 21$, mean age $= 16.5$ years, 52.4 % male, 71.4 % New Zealand European) decreased significantly post-intervention ($p < 0.0001$), with a large pre- to post-effect size ($d = 1.01$). This was maintained at three-month follow-up. We conducted post-intervention interviews with 20 participants. The consensus from participants was that Rainbow SPARX helped them feel better or less depressed. Suggestions were made about how the program could be improved (e.g. add more 'rainbow' content and address several minor technical issues).

Conclusions: Rainbow SPARX appears to be a promising intervention for sexual minority youth with depression. This is the largest study to date on the efficacy of interventions for depression conducted with sexual minority youth.

Keywords: *Lesbian*, *gay*, *bisexual*, *depression*, *computerised cognitive behavioural therapy*

T5-07-02
HealSeeker: the effectiveness of a newly developed serious game for children with ADHD.

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Background: Recent findings demonstrate that educational computer games (Serious Games) can contribute to the multimodal treatment of children with ADHD (Prins et al. 2011). This creates possibilities for the application of Serious Games as an additional intervention to reduce ADHD associated problems and, thereby, improving self management. Children with ADHD often experience difficulties in planning and organisation, time management and maintenance of social relationships. The intervention developed for this study was a Serious Game (called HealSeeker) with a social community that focuses on improving children's skills in the areas of time management, planning and organisation and prosocial behaviour.

Methods: From November until March 2012 a pilot study with a randomized pre–post test design was performed. A total of 42 children with ADHD, aged between 7 and 12 years, participated in this study. More recently an open randomised, controlled, multicenter trial was carried out in the Netherlands and Belgium. A total of 170 children with ADHD, aged between 8 and 12, was randomly assigned to two different conditions: an immediate and a delayed treatment group. Children were asked to play the game three times a week, from week 0–10 for the immediate treatment group and from week 10–20 for the delayed treatment group. Assessments were carried out at baseline and at 10 and 20 weeks.

Results: Results of the pilot study yielded promising positive results. Two types of results will be presented: first, the variables that were analysed and are related to children's achievement and behavioural adaption within the game; secondly, the behavioural questionnaires from parents and teachers and neuropsychological tests administered by the child that were analysed to measure transfer of real-life behaviour change. In addition, preliminary results of the randomized controlled trial will be presented.

Discussion: Can HealSeeker contribute to the treatment of associated problems of ADHD? Could it complement the current treatment of children with ADHD? These questions will be discussed in the context of the presented results and previous research on HealSeeker.

Keywords: *EHealth*, *serious gaming*, *ADHD*

T5-07-03

Bridging the digital disconnect—using technology to support young people's mental health needs

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The Health Promotion Research Centre at the National University of Ireland Galway in collaboration with Inspire Ireland Foundation are undertaking a 3 year programme of research working with young people and adults to determine how best to use technology to improve the mental health and wellbeing of young people. This initiative is part of an international research project which is being led by the Young and Well Cooperative Research Centre in Australia. 'Bridging the Digital Disconnect' and seeks to develop online mental health and digital literacy training programmes for adult gatekeepers, including parents, teachers, youth workers, social workers, psychologists, psychiatrists and general practitioners, who wish to support the mental health of young people age 12–25 years. The first online resource to be developed is designed to meet the needs of parents. A systematic review of the evidence of online mental health promotion and prevention interventions for young people was completed in 2012. Following this, a needs assessment survey was conducted with parents of students in 2nd and 5th year across 11 randomly selected secondary schools (N = 355) in Ireland. A series of focus group interviews with parents was also carried out nationally to explore their use of technology and their views on the development of online resources to support parents' needs in relation to youth mental health. This paper presents the findings from the first phase of the research on the needs assessment conducted with parents. The results revealed a strong interest from parents in the development of online resources, specifically the need for guidelines about how to identify and deal with mental health problems in young people, reliable information on youth mental health and the services available for young people locally. Alcohol and drug awareness, bullying, addressing school problems and developing coping skills were the most frequently requested topics parents would like to receive information on. The views of young people on the development of these resources for adult gatekeepers will also be ascertained through participative methods. This research will guide the development of tailored online resources that connect adults with the promotion of youth mental health in meaningful ways.

Keywords: *Young people*, *mental health promotion*, *online technologies*, *adult gatekeepers*

T5-08-01

Implementing an evidence-based parenting intervention in mainstream health services: a process evaluation of stakeholder experiences

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Objective: Implementing evidence-based parenting interventions within mainstream healthcare settings is a key challenge for service providers, not least because positive outcomes achieved in research environments may not be replicated under 'real world' conditions. This process evaluation, nested within a randomised controlled trial (RCT), investigated the organisational and systemic issues associated with the implementation of the Incredible Years Parenting (IYP) intervention within five healthcare services based in disadvantaged areas in Ireland.

Method: The study employed a mixed-methods approach. Semi-structured interviews were conducted with each manager (N = 5) of the five services (e.g. social work, psychology clinic, Family Resource Centres) and with the group facilitators (N = 11) who delivered the parenting groups. Interview data were analysed using constructivist grounded theory. Programme fidelity (or adherence) within the RCT was assessed using parent (N = 103) and facilitator reports (N = 11). Data were analysed using ANOVAs and correlational analyses.

Results: The key drivers of successful implementation included: (1) the degree of 'fit' between the IYP intervention and the service provider; (2) intra-agency supports to enhance recruitment and retention of parents; (3) screening for the readiness of parents (especially in services without many wrap-around supports); (4) monitoring implementation fidelity; and (5) partnership/inter-agency alliances to lever funding and supervision, and for sharing resources. There was variability in the extent to which the IYP intervention was integrated into services and some of the challenges related to the retention of parents, time and resource constraints, and sustainability. The quantitative findings illustrated high fidelity across all parenting groups in relation to parental engagement and facilitator adherence to intervention protocols (Mn = 90 %, SD = 4.0). The retention of parents, whilst variable across some parenting groups, was not statistically significantly related ($p > 0.10$) to the primary child behaviour outcome within the trial (r = 0.06, N = 9, p = 0.88).

Conclusion: This study is one of the first to investigate the organisational and systemic processes involved in implementing an evidence-based parenting intervention within existing healthcare settings. The findings highlight the feasibility of implementing the IYP programme within mainstream services whilst identifying key lessons for its successful implementation both in Ireland and elsewhere.

Keywords: *Parenting programs* service implementation and evaluation*

T5-08-02

Are group-based parenting programmes effective in the treatment of childhood conduct problems? A Cochrane review

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Objective: Conduct problems in children are common and have attracted considerable interest in recent years due to their significant negative psychological (and other) effects. This Cochrane review was undertaken to assess the effectiveness and cost-effectiveness of behavioural and cognitive-behavioural group-based parenting programmes for conduct problems in children aged 3–12 years.

Method: More than 20 databases were searched, including CENTRAL, EMBASE, MEDLINE and CINAHL. Searches yielded 16,012 articles, 86 % of which were electronically searched and 14 % of which were hand searched from reference lists. Studies were eligible for inclusion in the review if: (1) they involved randomised controlled trials (RCTs) or quasi-randomised controlled trials of behavioural or cognitive-behavioural group-based parenting interventions for parents of children aged 3–12 years with clinically significant conduct problems; and (2) they incorporated an intervention group versus a waiting list, no treatment or standard treatment control group. Two authors independently extracted data and assessed the risk of bias in the trials. Study authors were contacted for additional information.

Results: The review included 13 RCTs and two economic evaluations ($n = 1{,}078$ families). Results indicated moderate statistically significant improvements in child conduct problems [SMD -0.53; 95 % confidence interval (CI) -0.72 to -0.34], parental mental health (SMD -0.36; 95 % CI -0.52 to -0.20) and parenting practices (SMD -0.53; 95 % CI -0.90 to -0.16) across: different settings (research and service); levels of disadvantage; diagnostic categories; and within services demonstrating a high level of implementation fidelity. The parent training cost approximately $2500 (£1712/€2217) per family to bring the average child with clinically significant conduct problems into the non-clinical range.

Conclusion: Behavioural group-based parenting interventions are effective and cost-effective for improving child conduct problems, parental mental health and parenting skills. The cost of programme delivery was modest when compared with the long-term social and economic costs associated with childhood conduct problems (e.g. savings in crime-related costs). This Cochrane review provides the most definitive and methodologically rigorous evidence, to date, that behavioural, group-based parenting programmes can reduce clinically significant conduct problems in children to non-clinical levels.

Keywords: *Conduct problems* parenting interventions*

T5-08-03

Environment and child development: family and toys

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Problem: The paper concerns the relationship between family structure and home and environment provision of toys stimulating development of young children. It is believed that regardless of the emotional relationship and genetic predispositions, appropriately selected stimulants in the environment may also influence the young child's development. This development of a child occurs however, in a much "dense" network of psychosocial impacts.

It is due to the family structure—its formal structure (the presence of both parents, siblings, possibly third generation), the quality of interfamily relations, and also further derivatives of family structure including ideological background, level of education of family members, cultural aspirations, socio-economic capabilities associating the hierarchy of values and perception of family objectives. All these elements making up a family structure on one hand affect the scale of parents' determination in choosing methods and extent of influencing the child's development, on the other hand define the mechanisms of susceptibility of the child to this stimulation. It is because in the first periods of child's life the experiences gained in family pay as crucial character as the environment where this development takes place. Elements characterizing family structure are visible in the surrounding physical-spatial environment. It is emphasized that appropriate intellectual and social development of a child is related with the influence of the external environment as long as it is available and logically designed. In Poland only a few studies concern families with small children—they are usually carried out by sociologists, moreover, there is also very little data on the determinants of the development of children up to 18 months of age. An attempt to assess the structure of the studied families, patterns of their functioning, home and environment provision of toys stimulating children's development, as well as verification of hypotheses concerning possible relationships between these variables was undertaken in this study.

Method: The study involved 126 families with children aged from 3 to 18 months. In the present study following instruments were used: AHEMD for children aged 3–18 months and Questionnaire HOME for children aged 0–36 months "Interview and observation". The study was carried out within the Govermental grant entitled "Adaptation of instruments for diagnosing the quality of physical and social surroundings of children aged 3–36 months".

Results: The study indicates a relationship between family structure (child's age, parents' education, family financial status, and its formal structure) and home provision of toys stimulating development as well as between behavioral patterns of family functioning and home provision of toys. On the basis of the cluster analysis five types of families were distinguished.

Keywords: *Family resources*, *family structure*, *environments of child's development*, *toys that stimulate development*

T5-08-04

A focused prenatal parenting intervention for substance abusing women to be used at hospital maternity policlinics.

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Background: Mentalization (reflective functioning, RF) is a human ability to think about mind: wishes, intentions and experience, both in self and in another person. It makes possible for an individual to consider own and another person's behaviour from alternative perspectives. In early parenting, RF refers to parent's capacity to think of the baby as a separate person with own experiences and feelings already from pregnancy onwards; to wonder about the baby's experience, desires and intentions behind behaviour, and give value to this thinking. Higher parental RF has been found necessary for sensitive parental interaction, and to associate with child's secure attachment and better social, emotional and cognitive development (Slade et al. 2005; Fonagy et al. 2002, 2008,2011; Allen et al. 2008). RF has been found to be on average especially weak in psychosocial high risk groups, such as substance abusing parents. However, as has been shown, this central parental capacity can be strengthened also in high risk parenting through carefully designed interventions.

Aims: to use multidisciplinary expertiese in developing a feasible but effective routine prenatal intervention for alcohol and drug dependent mothers at hospital maternity policlinics. The intervention uses 4D ultrasound imaging and a specific week-by-week pregnancy diary in RF focused work with the mother, to increase the mother's curiosity towards the child, to enhance prenatal attachment and improve maternal ability to recognize the baby's needs.

Hypothesis: the intervention group does better compared to the control group in terms of maternal mental and somatic health, substance abuse, pregnancy and delivery outcome, neonatal status, maternal attitude and attachment with the child, child development and child protection actions needed. The main mediating factor for the better outcome is hypothesized to be the improved maternal mentalizing capacity.

Materials and methods: The research sample consists of mothers referred to Turku University Hospital maternity policlinic due to severe substance abuse, before 22 weeks of gestation. The efficacy of the intervention is explored using randomized control group design ($n = 40 + 40$). Same assessments are used with both groups and at same time-points: pre-and post the prenatal intervention i.e. twice during pregnancy, at delivery, in neonatal phase and in follow-up at 3 months and 1 year of child's age. Data collection is going on. The intervention content, research design, preliminary data (if/when possible) and a case example will be presented.

Keywords: *Prenatal intervention*, *motherhood*, *substance abuse*, *mentalization*, *prenatal attachment*, *pregnancy outcome*

T5-08-05

Alternately living after parental divorce: good or bad?

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The aim of this study was to examine parental bonding, own view on physical and mental state of health, and sense of coherence in older teenagers living alternately with divorced biological parents, and to compare this with their peers living with both biological parents or living with one divorced parent. Another purpose was to study differences in educational level and financial situation between these three groups. The study group comprised 3,498 teenagers with the mean age of 18.3 years ($SD = 0.6$) recruited from the Swedish National School records. Instruments used were the Parental Bonding Instrument (PBI; Parker 1979; Svedin and Priebe 2009), the Symptom Check List (SCL-25; Fridell et al. 2002), and the Sense of Coherence Scale (SOC; Antonovsky 1993; Gassne 2008). The results showed that the PBI-subscale Care was scored equally by the teenagers living alternately and with both biological parents, but was scored lower (experience of low care) by the teenagers living with a single parent. On the contrary, the subscale Overprotection (experience of control) was scored higher in this group compared with those living alternately and in intact homes. Also SCL-25 was scored equally by those living alternately or with both parents, but higher by those living with a single parent (more symptoms of poor mental health). The outcome of the SOC scale followed the same pattern; higher SOC among them who lived alternately and with both parents, but lower among them who lived with a single parent. Educational level was not different between the parents whose children lived alternately and in intact homes, but lower in the single parent group. The financial situation in the intact homes was better than in the homes where the children lived alternately, which in turn was better than in the single family homes. In conclusion, teenagers living in intact homes and living alternately are in most studied aspects alike, while teenagers in single parent homes are worse off.

Keywords: *Alternately living*, *teenagers*, *parental bonding*, *mental health*, *sense of coherence*

T5-08-06

A randomized controlled trial evaluation of the parents plus adolescents programme in schools

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Introduction: Conduct problems and antisocial behaviour in older children and young people are common and costly problems (e.g. Scott et al. 2001). There is significant evidence that small group parent training, following social learning principles, can be effective in reducing problem behaviours and parental stress (e.g. Webster-Stratton et al. 2011). However, the majority of parenting programmes target young and preadolescent children, though many families seek help when their children enter adolescence This current study evaluate the Parents Plus Adolescent Programme (PPAP)—an 8 week parent training programme specifically targeting parents of young adolescents (aged 11–16 years).

Method: The PPAP was offered as a universal programme to participating schools in Kerry in Ireland. All parents were invited to attend information sessions at which 126 signed up to take part in a course and to complete the research measures. They were then randomly assigned to either a treatment (PPAP; $n = 82$) or a waiting-list condition (WC; $n = 44$) and measures were recollected post programme and at 6 month follow up for the treatment group. The facilitators were community professionals who attended a 2 day training and supervision from the programme developers. The study was carried out by an independent researcher as the basis of a PHD thesis in the University of Limerick.

Results: Post treatment results revealed significant positive effects of the parenting intervention when compared to the waiting-list control group with respect to; adolescent behaviour problems (as measured by the Strengths and Difficulties Questionnaire) and parenting stress (as measured by the Parenting Stress Index). In addition, parenting satisfaction improved (as measured by the Kansas Parenting Satisfaction Scale). At the 6 month follow up with the treatment group these gains were maintained.

Discussion: Of particular note is the relative high take and up and relatively low drop out of the participating parents suggesting the acceptability of parenting courses in schools. The programmes were offered universally and more research is needed to track the benefits for parents of adolescents with identified conduct problems.

Conclusion: The study supports the effectiveness of the Parents Plus Adolescent Programme when delivered as a preventative programme in schools.

Keywords: *Adolescence*, *parent training*, *behaviour problems*, *conduct disorder*, *prevention*, *parent stress*, *schools*

W1-01-01

Suicidal behaviour among Arab adolescents at risk in Israel and it's perception as a mean of expressing distress and as a help seeking technique.

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Suicide is one of the most common causes of death in adolescence around the world. In Israel, suicide among Arab adolescents is an issue that has not been investigated enough. Although studies indicate that suicide is less common in this population, suicidal behaviors among Arab adolescents are more common in the last years.

Aims: In this study we aim to evaluate the differences between Arab and Jewish adolescents in regard to their help-seeking techniques and their attitudes toward suicide. We shall also investigate the hypothesis claiming that because of the differences between the populations, the correlation between the severity of psychopathology and suicidal behaviors in the Arab population will be lower.

Method: 12 high-schools from Jewish and Arab cities in Israel were randomly chosen. 1,200 pupils completed self-report questionnaires regarding suicide ideations and attempts (Paykel Suicide Scale), psychopathology (SDQ; BDI; Zung Anxiety Scale), socio-demographic background, help seeking techniques and attitudes toward suicide. For clinical considerations, all questionnaires were screened for severe suicidal behaviours and those subjects were interviewed by school counselor.

Preliminary results: 15.7 % of the Arab adolescents, in compare with 5.1 % of the Jewish adolescents, reported they either thought about suicide during the past 2 weeks before the survey or had a suicide plan. Although the Arab adolescents were only 44.7 % of the participants, 67 % of the participants who reported that they attempted suicide were Arabs.

Conclusions: Hopefully this research will elucidate the unique patterns which lead to suicidal behaviours that have been found as rising among Arab adolescents. Identifying these patterns is a basic step for establishing new strategies of preventing suicidal behaviours in this population.

Keywords: *Suicide*, *adolescents*, *Arab*

W1-01-02

A cost effectiveness analysis of four arms of a school-based mental health intervention in Europe

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This study provides the results of a preliminary economic evaluation of the four suicide intervention arms of the Saving and Empowering Young Lives in Europe project. The interventions are as follows. Arm 1: QPR, pupils are referred by school staff known as gatekeepers, Arm 2: Awareness, students partake in role-plays to raise suicide awareness Arm 3: ProfScreen; pupils are screened by a professional clinical evaluator and Arm 4, Minimal Intervention (control), posters are hung in the classrooms encouraging students to seek help by themselves if necessary.

The costs were collected after the interventions had taken place. The main outcome measure used in this analysis is the Beck Depression Inventory (BDI) which is divided into four categories; minimal, mild, moderate and severe. Health utilities are attached to each BDI health state and a quality adjusted life year (QALY) is calculated. An incremental cost effectiveness ratio (ICER) is provided for each intervention which gives the cost per QALY gained. Transition probabilities and Markov models are used in the estimation of the QALY and a sensitivity analysis is carried out to account for uncertainties in the collections data.

In order to account for differing levels of QALYs between the four arms, the overall change in QALYs is measured. We can see, when controlling for heterogeneity in the baseline sample, that all arms are cost effective at a €40,000 per QALY threshold. However, the most cost effective intervention is ProfScreen at €190.00 per QALY. Without taking costs into consideration, the most effective arm in terms of improving quality of life is the ProfScreen arm with the largest change in QALYS from baseline to 3 month follow up being 0.0272. The Minimal arm displays the lowest change in QALYs. The high personnel costs involved in Arm 1: QPR and Arm 2: awareness may have caused a reduction in the cost effectiveness at €1,000.00 per QALY as measured by the BDI utilities.

This report provided the results from a preliminary cost effectiveness analysis carried implemented in conjunction with four mental health interventions in schools in eleven countries across Europe as part of the SEYLE project. Both micro and macro costing techniques were employed and the costing data was collected retrospectively. To take into account baseline heterogeneity of the sample the overall change in the QALYs calculated using BDI utilities was calculated and it was seen that the biggest positive effect was seen in Arm 3: ProfScreen. When the costs are taken into consideration the most cost effective of the three arms when compared with Arm 4: minimal is Arm 3: ProfScreen. One way sensitivity analyses were carried out varying such parameters as BDI utilities and country costs, yet the results remained the same; Arm 3: ProfScreen remained the most cost-effective arm to improving mental health as measured by the Becks Depression Inventory.

Keywords: *Depression*, *cost*, *health outcomes*, *health utilities*, *Europe*

W1-01-03

Screening pupils for current suicidality and subsequent attendance at clinical interview across eleven European countries

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Background: School-based screening for suicidal behaviour is potentially a useful means of identifying those at-risk and increasing the number of suicidal young people who come into contact with the health services. Much of the research on this issue has been conducted in the United States with comparatively little having been conducted with adolescents in European countries.

Aim: Using information from the baseline assessment of the 'Saving and Empowering Young Lives in Europe' (SEYLE) project, this study aimed to increase understanding of school-based screening of adolescents for current suicidality, across multiple European countries.

Method: Across eleven European countries, 12,395 school-going adolescents (mean age 14.9; SD 0.9) were screened for suicidal ideation and/or a suicide attempt in the past 2 weeks (current suicidality). These young people were considered 'Emergency Cases'. These Emergency Cases were invited to take part in a semi-structured clinical interview with a mental health professional.

Results: 4.2 % (n = 515) of the sample reported current suicidality, of whom just over a third (37.5 %; n = 193) attended the clinical interview. The prevalence of emergency cases ($\chi^2 = 120.74$, df = 10, $p < 0.001$, V = 0.099) and interview attendees ($\chi^2 = 190.11$, df = 10, $p < 0.001$, V = 0.608) differed significantly across countries. The prevalence of cases ranged from 1.1 % in Hungary to 7.7 % in Israel while interview attendance varied from 96.7 % in France to 5.7 % in Italy. The most common reason for non-attendance at interview was pupils refusing permission. Despite the high level of non-attendance, considerable efforts were made to encourage students to attend, including an average of 3.1 phone contacts per pupil. Other means of contact included email, letters and through school personnel. Interview attendance was significantly determined by whether interviews were conducted at the students' schools or at the respective study centres ($p \leq 0.001$). Interview attendees had significantly higher levels of depressive symptoms, anxiety symptoms, emotional symptoms, hyperactivity/inattention, prosocial behaviour and functional impairment than non-attendees. Interview attendees were also significantly more likely to be female and have a history of Deliberate Self Harm.

Conclusion: Despite the high levels of non-attendance at clinical interview, those who did attend had higher levels of internalising difficulties and Deliberate Self Harm and were more impaired by their difficulties. Future screening programmes should conduct clinical interviews at schools and investigate means of increasing attendance at clinical interview, especially amongst boys.

Keywords: *Screening*, *current suicidality*, *adolescents*, *clinical assessment*, *Europe*

W1-01-04

Results from the saving and empowering young lives in Europe project

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This symposium aims to present the results of Irish and International research based on theSaving and Empowering Young Lives in Europe' (SEYLE) project.

SEYLE is a school based prospective intervention study which aimed to include at least 1,000 school-going adolescents in each of 11 European countries (France, Slovenia, Austria, Hungary, Spain, Ireland, Germany, Italy, Israel, Estonia and Romania) with Sweden providing organisational support. SEYLE was supported through the European Union Seventh Framework Program. The project aimed to formulate a health promotion programme that could improve adolescent mental health and reduce suicidal and other self-destructive behaviours.

The project's objectives were to gather information on health and well-being in European adolescents; perform three different interventions leading to better health through decreased risk-taking and suicidal behaviours; compare and evaluate the outcomes of the different interventions from a multidisciplinary perspective including social, psychological and economical aspects and recommend effective culturally adjusted models for promoting health of adolescents in different European countries.

To achieve this, the project implemented a pilot intervention study to evaluate the effects, impacts and cost-effectiveness of three different school-based health interventions in an attempt to prevent risk-taking and self-destructive behaviours. These were as follows: *General health awareness promotion*; *Teen Screening by mental health professionals* and *Gatekeeper training of school staff* in comparison with a fourth option of providing *minimal intervention* via offering information leaflets. Information was collected at baseline on students in schools that had been selected at random. Equal numbers of students participated in one of the interventions and were re-assessed at 3 and 12 months follow-up, thus providing evidence for the most effective in terms of mental health related intervention in the European secondary school settings.

The study took place between January 2009 and December 2011 and eventually involved 12,395 school-going adolescents (mean age 14.9 years). Initial findings suggest that professional screening for mental health problems is the most effective intervention in ensuring that young people are referred to the necessary services.

Keywords: *SEYLE*, *prospective intervention study*, *school-based*, *health promotion*, *risk taking and suicidal behaviours*

W1-01-05

Childhood trauma and psychotic experiences—cause, effect and directionality: results from a prospective cohort study

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Objective: Using longitudinal and prospective measures, we assessed the relationship between childhood trauma and psychotic experiences, addressing the following questions: (1) Is the relationship between childhood trauma and psychotic experiences uni- or bi-directional? (2) Does trauma predict newly incident psychotic experiences? (3) Does cessation of trauma predict cessation of psychotic experiences?
Method: Nationally-representative prospective cohort study of 1,112 school-based adolescents aged 13–16 years, assessed at baseline, 3-months, and 12 months for childhood trauma (physical assault and bullying) and psychotic experiences.
Results: There was a bi-directional relationship between childhood trauma and psychotic experiences, with trauma predicting psychotic experiences over time and vice versa. However, even after accounting for this bi-directional relationship with a number of strict adjustments, looking only at newly incident psychotic experiences occurring over the course of the study following exposure to traumatic experiences, we found that trauma was strongly predictive of psychotic experiences. There was a dose–response relationship between severity of bullying and risk for psychotic experiences. What is more, cessation of trauma predicted cessation of psychotic experiences, with the incidence of psychotic experiences decreasing significantly in individuals whose exposure to trauma ceased over the course of the study.
Conclusions: After a series of conservative adjustments, we found that exposure to childhood trauma predicted newly incident psychotic experiences. We also report the first direct evidence that cessation of traumatic experiences in the population leads to a reduction in the incidence of psychotic experiences.

Keywords: *Suicidal behaviours*, *psychotic symptoms*, *adolescence*, *directionality*, *trauma*

W1-02-01

Survey examining the views of adult psychiatry consultants and senior registrars regarding ADHD

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Objectives: Attention Deficit Hyperactivity Disorder (ADHD) has been demonstrated to continue to cause difficulties for patients beyond childhood, although traditionally services for diagnosis, assessment and treatment of ADHD in adulthood have been lacking. The objectives are to explore the views of Adult Psychiatry regarding ADHD prevalence, knowledge base, the most suitable service and the treatment options available and pursued in Ireland.
Methods: A questionnaire was constructed based on the stated aims of the study, and was either posted, emailed or handed to 400 Consultants and Senior Registrars throughout the Republic of Ireland between February and December 2011. A total of 92 questionnaires were returned (23 %); one was excluded from analysis due to insufficient information entered by the respondent.
Results: Seventy-five per cent of respondents correctly estimated the prevalence rates of Adult ADHD to be under 3 %, but stated it is currently under-diagnosed. (77 %) Seventy-four percent indicated that Adult ADHD should be a diagnostic category in DSM V. Sixty-six percent of respondents were willing to accept referrals of childhood ADHD for ongoing care and a similar number for new ADHD assessments (61 %). Less than half (42 %) surveyed had actually diagnosed ADHD and of these only 33 % felt confident in managing ADHD.
Conclusions: Whilst there is a general willingness to offer services for new and existing ADHD cases and a recognition that Adult ADHD is valid and under-diagnosed, the low confidence levels when treating ADHD and the perception of under-diagnosis suggests a role for further training and links between child and adult services.

Keywords: *ADHD*, *adult*, *psychiatry*

W1-02-02

Overview of CADDRA: past present and future

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1. CADDRA was set up to help develop a consistent approach to the Assessment, Diagnosis and Treatment of ADHD in Canada. There are over 350,000 children and adolescents in Canada with ADHD and close to 1 million adults with ADHD. The practice

guidelines have been in existence for over 9 years and there is a national annual meeting to review recent scientific advances, treatment interventions and the focus is on a bio-psycho-social approach with education focused towards primary care physicians, pediatricians and psychiatrists.

2. Difficulties exist with limited recognition of Adult ADHD with Adult Psychiatrists. Adult ADHD is not well recognized by adult psychiatrists and the emotional dysregulation and oppositional defiant disorder (ODD) complicates the clinical picture as many adults are diagnosed with Bipolar Spectrum Disorder.
3. Specific non-medication therapies for ADHD such as cognitive behaviour therapy (CBT), dialectical behaviour therapy (DBT) are not readily accessible in the community for individuals with ADHD and their families.
4. CADDRA has developed an e-Learning Portal on the web for members to enhance skills in ADHD assessment, diagnosis and treatment and this will become a major focus for the next 5 years.
5. Our 10th Annual CADDRA meeting is for Toronto October 2014

Keywords: *CADDRA*, *assessment*, *diagnosis*, *treatment*, *Canada*

W1-02-03

Adults with ADHD recall a negative impact of the condition on their childhood: results of the European lifetime impairment survey

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This European Lifetime impairment survey was implemented in six EU countries, participates were invited by email to complete the survey online. History of ADHD by healthcare provided was self reported. There was a large variation of individual experiences of ADHD diagnosis and treatment in Europe. N = 629 Adults with ADHD, N = 736 Adults without ADHD. ADHD was associated with significant impairment with all aspects of life and behavioural conduct problems are recalled by a greater percentage of adults with ADHD than controls. 48 % of adults with ADHD are often quick to become angry and upset at school. This occurred in 18 % of those without ADHD. Expulsion at school for 30 % of adults with ADHD and 9 % of adults without ADHD. I get along with my teachers 56 % of adults with ADHD and 73 % without ADHD. I was able to handle large workloads 44 % of adults with ADHD and 61 % of adults without ADHD. I fit in with my peers 48 % of adults with ADHD and 65 % of adults without ADHD. I had a good relationship with my parent's 48 % of adults with ADHD and 70 % of adults without ADHD. I often made mistakes or acted in ways that others saw as inappropriate 56 % of adults with ADHD and 21 % of adults without ADHD. I was in the bottom of the class 23 % of adults with ADHD and 10 % of adults without ADHD. Did you ever have a tutor to help you with school work 25 % of adults with ADHD and 9 % of adults without ADHD. Did you go out on dates 30 % of adults with ADHD and 22 % of adults without ADHD. I get along with my friends outside school 63 % of adults with ADHD and 77 % of adults without ADHD. I was popular outside school 45 % of adults with ADHD and 53 % of adults without ADHD.

Keywords: *Attention deficit hyperactivity disorder*, *impact*, *lifetime impairment*

W1-02-04

ADHD clinical guidelines

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Attention deficit hyperactivity disorder is a recognised disorder with international prevalence rates estimated to be 5 %, and one of the most common disorders treated in child and adolescent mental health services including Ireland. There have been a number of guidelines produced to aid clinicians in the diagnosis and treatment of ADHD however there are significant differences between countries and disciplines. This symposia will review the guidelines from the American, Canadian and European perspectives, consider the similarities and differences in the context of overall service provision. The symposia will present on two European studies along with one Irish. The individual experiences of adults (1,500) with an ADHD diagnosis and treatment from a Europe perspective will be presented, along with the attitudes of Irish Psychiatrists to adult diagnosis. Data from clinicians from 7 different European countries will be presented highlighting intriguing country- and profession-specific differences.

Keywords: *Attention deficit hyperactivity disorder*

W1-02-05

Review of clinical guidelines for attention deficit hyperactivity disorder across the lifespan and their application to an Irish context

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Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder with international prevalence rates estimated to be 5 %. It is currently the most common disorder treated in child and adolescent mental health services in Ireland. There is a scarcity of data on the prevalence rates of Irish adults with ADHD. Recent studies have indicated that up to 65 % of children and adolescents continue to exhibit symptoms into adulthood. There have been a number of guidelines produced to aid clinicians in the diagnosis and treatment of ADHD however there are no guidelines available specifically for the Irish population. The objective of this paper is to review the available clinical guidelines for ADHD in children

and adults across North America, Canada, Europe and the UK and to adapt these to an Irish context in order to propose a standardised pathway for the assessment, diagnosis and treatment of ADHD across the lifespan. This paper outlines a proposed guideline for Irish clinicians based upon current guidelines and evidence base for the assessment and treatment of ADHD. It will discuss the common co-morbid conditions and recommended treatment options both pharmacological and psychosocial. Guidance on the long term follow up and community supports available in Ireland are included. This paper concludes that formalised guidelines should be devised and implemented to standardise the care of patients with ADHD. Adult ADHD is a particular area that requires further attention with a need for increased recognition and more comprehensive transitions between child and adult psychiatry services.

Keywords: *Attention deficit hyperactivity disorder*, *guidelines*, *children*, *adolescents*, *adults*, *assessment*, *treatment*

W1-02-06

Attitudes and practices of healthcare professionals in the management of ADHD: a European pilot survey

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Disscusant ADHD Talk -.

Objectives: To examine attitudes and practices in the management of attention-deficit/hyperactivity disorder (ADHD) among health professionals across seven European countries.

Methods: The web-based survey was developed by an international steering committee of ADHD experts and consisted of 64 multiple-choice questions relating to ADHD, covering the following topics: attitudes, diagnosis, referral, treatment and improving care. Clinicians working with ADHD were identified using a medical marketing database (MedicalMarketing Service, Inc., IL, USA) and invited via email to participate in the survey. No incentive was offered for participation and the survey was only available in English.

Results: One hundred and thirty-four clinicians replied to the survey. Results highlighted significant differences by profession and country. In general, ADHD is considered a clinically important and valid disorder (n = 111.84 %), with biological underpinnings (n = 82.62 %), continuing into adulthood (n = 123.93 %) and responsive to treatment. Respondents from France were less likely to be convinced about biological validity (n = 4.27 %) and those from Italy and France were more likely to be concerned about the risk of under diagnosis (n = 9.64 % and n = 9.60 %, respectively). Psychologists were the specialty who most frequently reported not believing in the diagnostic validity of ADHD (n = 4.19 %). One-third (n = 25.35 %) of respondents recommended medical tests before prescribing medication, with differences emerging by country (n = 2–11, 13–85 %), despite the lack of support for such routine assessments in the guidelines.

Conclusions: Intriguing country- and profession-specific differences emerged in this study and warrant further exploration.

Keywords: *ADHD*, *attitude of healthcare personnel*, *guidelines*, *healthcare surveys*, *physician's practice patterns*

W1-03-01

Structural brain changes associated with 22q11DS from childhood to adulthood: results from the Geneva longitudinal cohort

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Alterations to brain morphology in 22q11.2 deletion syndrome (22q11DS) may represent biomarkers of the schizophrenia vulnerability. Longitudinal study design combined with up-to-date neuroimaging techniques may reveal risk factors for the subsequent development of psychosis.

We used 430 T1-weighted cerebral MRI acquired in Geneva since 2001. The dataset, including repeated acquisitions for a large number of participants (up to 4 scans), was obtained from 95 patients with 22q11DS aged 6–30 years old and 127 control participants. Additional DTI images were also available for a smaller sample of 40 patients and 40 controls. Precise three-dimensional mesh models of the cortex were created, and subsequently used to measure local gyrification and cortical thickness with an exquisite resolution. Trajectories of cortical thickness were estimated using mixed-model non-linear regression analyses. Finally, we conducted tractography using the DTI data to quantify abnormal neural connectivity in the syndrome. After correcting for multiple comparisons, decreased gyrification was mostly prominent in the medial regions bilaterally. The absence of any significant time-by-group interaction suggests that gyrification abnormalities arise from early-disrupted neurodevelopment in the syndrome. Non-linear regressions revealed deviant trajectories of cortical thickness in 22q11DS compared to controls. This abnormal course of cortical thickness, particularly significant in the dorsofrontal region, was specifically related to the onset of psychosis and may be caused by a delayed and exaggerated pruning. Finally, we observed significant changes in the network organization as measured with tractography. Results from the multi-modal integration of tractography and cortical morphology suggest that the cortical alterations are tightly related to abnormalities in the underlying architecture of white matter connections, and that abnormal pattern of brain maturation is associated with the onset of psychosis. We conclude that sophisticated neuroimaging methods help to unravel the pathogenesis of 22q11DS and disentangle the schizophrenia risk architecture in the syndrome.

Keywords: *22q11.2 deletion syndrome*, *schizophrenia*, *structural imaging*

W1-03-02

Cognitive, behavioural and neuroimaging trajectories in 22q11.2 deletion syndrome: a window into the risk factors for the development of psychiatric disorders

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22q11.2 deletion syndrome (22q11DS) is one of the highest known risk factors for the development of schizophrenia. Indeed, schizophrenia spectrum disorders are diagnosed in about 30 % of adults with 22q11DS (Baker and Skuse 2005). Early-onset psychosis (i.e. onset before the age of 18) is over-represented in this population, as 10 % of adolescents are diagnosed with a psychotic disorder and 45 % display attenuated psychotic manifestations (Schneider et al. 2012; Stoddard et al. 2011). Other psychiatric conditions such as anxiety disorders and ADHD are also over-represented in children and adolescents with 22q11DS (Green et al. 2009). Longitudinal studies in this population therefore represent a unique opportunity to investigate risk factors for the development of psychiatric disorders and especially psychosis. In the proposed symposium, we wish to characterize the cognitive, behavioural and neuroimaging risk factors for psychosis and other childhood-onset psychiatric disorders in two longitudinal (Swiss and Dutch cohorts) and one large transversal (Wales cohort) cohorts of children and adolescents with 22q11DS. In particular, two presentations aim at better understanding the role of specific cognitive mechanisms in the development of chilhood-onset psychiatric disorders (M. Niarchou) and psychosis (M. Schneider) in 22q11DS. The third presentation (J. Vorstman) seek to examine if some clinical characteristics in early childhood represent significant risk factors for psychosis during adolescence. Specifically, the relationship between autism spectrum disorder and psychosis will be investigated. Finally, the last presentation (S. Eliez) explore the structural brain abnormalities in 22q11DS that may a confer a risk for the development of schizophrenia. We believe that a better understanding of the developmental trajectories leading to psychosis in 22q11DS will also help in the identification of neurodevelopmental risk factors for schizophrenia in the general population.

Keywords: *22q11.2 deletion syndrome*, *schizophrenia*, *risk factors*

W1-03-03
Cognition and psychopathology in children with 22q11.2 deletion syndrome

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Introduction: Children with 22q11.2 Deletion Syndrome (22q11.2DS) are at high risk of cognitive and psychiatric problems, but there is a lack of understanding about the relationships between children's cognitive impairments and increased risk of psychopathology.

Methods: 92 children with 22q11.2DS (probands, mean age: 10.3, SD ± 2.2) and 48 siblings (mean age: 10.8, SD ± 2.0) took part in an ongoing study. The Child and Adolescent Psychiatric Assessment (CAPA, parent interview) was conducted to establish DSM-IV psychiatric diagnosis and the Social Communication Questionnaire (SCQ) was used to screen for Autism Spectrum Disorder (ASD). Cognitive assessments included the Wechsler Abbreviated Scale of Intelligence (WASI), five tests from the Cambridge Neuropsychological Test Automated Battery (CANTAB: attention, spatial working memory, motor skills and planning) and the Wisconsin Card Sorting Test (executive function). We conducted mediation analysis to evaluate whether risk of psychopathology is influenced by impairment in IQ (indirect path from deletion to IQ to psychopathology) or whether the link is direct (from deletion to psychopathology).

Results: More than half of probands met diagnostic criteria for one or more DSM-IV psychiatric disorders. Probands had higher rates of: anxiety disorders [29 % versus 4 % ($p < 0.001$)]; attention deficit hyperactivity disorder [ADHD, 42 % versus 4 % ($p < 0.001$)] and Oppositional Defiant Disorder [ODD, 17 % versus 2 % ($p = 0.01$)]. Almost a third of the probands met the cut-off for ASD diagnosis in relation to 7 % of their siblings ($p = 0.003$). Probands had lower IQ [mean (SD): 77.5 (12.9) versus 108 (13.8), $p < 0.001$] and performed worse on all other cognitive tests. Risk of anxiety disorder, ADHD, ODD and ASD was not found to be influenced (mediated) by IQ.

Conclusions: Children with 22q11.2DS have higher rates of a range of psychiatric problems and poorer cognitive function than sibling controls. The psychopathology seems to be a direct consequence of the 22q11.2 deletion rather an indirect consequence of their cognitive impairments. These findings provide insight into the underpinnings of psychopathology in 22q11.2DS, with potential implications for the wider psychiatric field.

Keywords: *Cognition*, *psychiatric disorders*, *22q11.2DS*, *children*

W1-03-04
Prone to psychosis: longitudinal findings in a large cohort of adolescents with the 22q11.2 deletion syndrome

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Background: Patients with the 22q11.2 deletion syndrome (22q11DS) have a 25-fold increased risk to develop schizophrenia; thereby making this condition the strongest known single genetic risk factor for schizophrenia. Nevertheless, 75 % of 22q11DS patients do not develop schizophrenia. To date, it is unknown which factors contribute to (or can predict) this variable neuropsychiatric outcome in 22q11DS. A longitudinal study of adolescents with 22q11DS offers an exceptional opportunity to examine clinical and biological predictors of schizophrenia in this population.

Aims: To study neuropsychiatric and neurocognitive aspects of the 22q11.2 deletion syndrome from adolescence into adulthood. To examine if specific clinical (behavior, cognition) and/or biological (metabolic and genetic) variables are associated with the development of schizophrenia/psychotic disorders. One specific hypothesis in this regard is whether autistic features assessed at T0 are correlated with an increased probability of psychosis (and/or psychotic symptoms) at T1.

Methods: Since 2000 a large cohort (current $n = 120$) of adolescents with a confirmed 22q11.2 deletion are prospectively followed with the use of standardized neuropsychiatric assessment methods and cognitive tests. At present, T0 measurements in 120 subjects have been completed (mean age at T0 ~13.5 years) and in approximately 60 subjects a T1 measurement (mean age at T1 ~18.5 years).

Results: Preliminary results indicate that (1) approximately 30 % of participants have a psychotic disorder at T1 and (2) autistic features nor a formal diagnosis within the autistic spectrum are correlated with the presence of psychotic symptoms at T1. More analyses are underway and results thereof will be presented at the meeting.

Keywords: *22q11.2 deletion syndrome*, *psychosis*, *autism*

W1-03-05

Longitudinal predictors of psychotic symptoms during adolescence in 22q11.2 deletion syndrome (22q11DS)

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Introduction: 22q11.2 deletion syndrome (22q11DS) is a neurogenetic condition associated with an increased risk of developing schizophrenia across the lifespan (Murphy et al. 1999). Recent research suggests that early-onset psychosis may represent a clinical characteristic of 22q11DS (Baker and Skuse 2005; Schneider et al. submitted). However, longitudinal studies investigating the evolution of psychotic symptoms during adolescence are still limited. Furthermore, cognitive risk factors for the emergence of psychotic manifestations remain largely unknown in this population (Antshel et al. 2010; Gothelf et al. 2005). Special attention will be paid to the exacerbation of negative symptoms during adolescence, since they are considered as one of the main source of disability in this syndrome (Schneider et al. 2012).
Method: 32 patients [18 (56 %) females] with 22q11DS were assessed longitudinally at a 3.6 years interval (mean age T1 = 15.0; mean age T2 = 18.61). A clinical evaluation of positive and negative symptoms was performed at both timepoints using the structural interview for prodromal syndromes (SIPS). A cognitive evaluation assessing verbal and non-verbal reasoning abilities, verbal and visual memory, attention and executive functioning was also performed at both timepoints.
Results: The change in positive and negative symptoms was significantly associated with one another ($r = 0.361$, $p = 0.042$). Change in the severity of positive symptoms was significantly associated with a change in attentional control ($r = 0.466$, $p = 0.008$). As for the change in the severity of negative symptoms, it was significantly associated with several factors: change in GAF score between the two evaluations ($r = -0.379$, $p = 0.033$), and change in the severity of externalizing symptoms ($r = -0.449$, $p = 0.010$).
Discussion: In the present study, we observed that the change in positive and negative symptoms in adolescents with 22q11DS tended to covariate with each other, suggesting that they are part of the same pathophysiological process. Nevertheless, our data point to different cognitive and behavioral factors associated with the exacerbation of positive and negative symptoms. Increase in positive symptom severity during adolescence was associated with a dysregulation in attentional control, consistent with several findings from the schizophrenia literature (Mirzakhanian et al. in press). As for negative symptoms, their increase during adolescence was associated with functional deterioration, consistent with our previous cross-sectional study (Schneider et al. 2012).

Keywords: *22q11.2 deletion syndrome*, *schizophrenia*, *negative symptoms*

W1-04-01

Global child mental health: what can we learn from countries with limited financial resources

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In 1977 the World Health Organization recommended that every country throughout the world should have a National Plan for Child Mental Health. The UN Convention on the Rights of the Child has been another important stimulus for child mental health policies and services in many countries. Adopted in 1961, the European Social Charter is the major European treaty that secures children's rights. In 1996 the Charter was revised and expanded to include a list of core obligations of the contracting parties relating to the recognition of social, legal and economic rights for children and young persons. These three international policies stimulated governments worldwide to develop national child and adolescent mental health policies and legislation. The presence of informed, effective policy is critically important for the mental health of children. Without guidance for developing child and adolescent mental health policies and plans there is the danger that systems of care will be fragmented, ineffective, expensive and inaccessible. Obviously, it is not enough just to have a good policy: it is has to be implemented. While an increasing number of countries have developed child mental health policies, in the current climate of economic recession, implementation of these programmes poses a real challenge, as many governments are being forced to make stringent reductions in public sector expenditure. Child mental health services are under constant threat or have already suffered significant financial cuts in many countries. Thus one of the most important questions these days is how to deliver adequate child and adolescent mental services with limited resources. The aim of the present paper is not simply to present a literature review but also to point out that it has been a big challenge in recent times to implement child and adolescent mental health policies and to consider alternative approaches to improve child and adolescent mental health services.

Reference:

Skokauskas N, Belfer M (2011) Global child mental health: what can we learn from countries with limited financial resources. Int Psychiatry 8(2):45-48.

Keywords: *IACAPAP*, *ESCAP*, *AACAP*, *WPA*

W1-04-02

'A world in which all children grow up healthy emotionally…' IACAPAP's Vision

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Founded by a group of European child psychiatrists in 1937, the International Association for Child and Adolescent Psychiatry and Allied Professions (IACAPAP) has reached out to virtually all the regions of the world through its programmes. IACAPAP's vision for 'a world in which all children grow up healthy, emotionally as well as physically, and realize their potential to contribute to their society' is being fulfilled in its mission. IACAPAP's mission to promote the mental health and development of children and adolescents through policy, practice and research and the prevention, treatment and rehabilitation of mental disorders and disabilities of children, adolescents and families, is being pursued through several programmes. This presentation will identify key aspects in the strategic plan of IACAPAP and how these are helping to change the landscape of child and adolescent psychiatry (CAP), and child and adolescent mental health (CAMH), especially in resource constrained regions of the world. IACAPAP'S work, through collaboration among the professions of child and adolescent psychiatry, psychology, social work, paediatrics, public health, nursing, education, social sciences and other relevant disciplines, encourages the very important tool of task shifting. IACAPAP's emphasis on partnerships, especially between better-resourced and resourced-constrained regions of the world, are propelling education and training activities around the world. New publications by IACAPAP are promoting advocacy and supporting educational programmes in all regions. All these programmes are helping to raise up leaders who can enable rapid changes in the landscape of CAP and CAMH around the world.

Keywords: *ESCAP*, *IACAPAP*, *WPA*, *AACAP*

W1-04-03
Future of child and adolescent psychiatry

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This is the second ESCAP symposium "Future of child and adolescent psychiatry". The first symposium was held in Helsinki, Finland (ESCAP 2011). The first symposium has attracted a large audience and was well received. Since 2011 there have many changes in the area of child mental health and this session will bring new leading figures representing international child and adolescent psychiatric societies. The symposium will be chaired by Rudd Mindera (ESCAP) and Norbert Skokauskas (WPA CAP). R. Mindera's presentation will focus on "*ESCAP Quality of Care*". Recently special "care programs" have been designed for children with different type of problems like ADHD, OCD, and etc. The problem however is the implementation of these protocols on a large scale in the different European countries because of the differences in organisation of care between countries, within and between care centers, and many other (financial) problems. A large positive input might be given when over the boundaries of countries, care centers would cooperate to exchange their protocols and the experience with these protocols in daily use, in order to achieve more generally accepted evidence based "care programs". P. T. Joshi's (AACAP) presentation will focus on AACAP activities. The American Academy of Child & Adolescent Psychiatry has approximately 8,700 members. The US faces dire challenges, a shrinking number of acute psychiatric beds for children and adolescents, a desperate lack of residential facilities, and insufficient outpatient treatment programs. But the current state of affairs extends beyond supply of providers and facilities. There is a stunning lack of understanding of mental illness in children and teens, and a seeming lack of will to address this as a nation. O. OMIGBODUN and D. Fung's (IACAPAP) presentation will identify key aspects in the strategic plan of IACAPAP and how these are helping to change the landscape of child and adolescent psychiatry, and child and adolescent mental health, especially in resource constrained regions of the world. B. Leventhal and N. Skokauskas (WPA CAP) will speak about WPA CAP activities and future goals and will also point out that it has been a big challenge in recent times to implement child and adolescent mental health policies and will review alternative approaches to improve child and adolescent mental health services, which have been successfully implemented in LAMI.

Keywords: *ESCAP*, *IACAPAP*, *WPA*, *AACAP*

W1-04-04
ESCAP quality of care

Ruud Minderaa

European Society for Child and Adolescent Psychiatry, President, Groningen, The Netherlands

The last decennia an explosion of research results were released in the international scientific literature, which are applicable in the treatment for children and adolescents with mental health problems. Much of these findings are translated into "protocols" that can be implemented in daily care for children and used by physicians and psychologists. These "protocols" create possibilities to design special "care programs" for children with different type of problems like ADHD, OCD, GTS, Depression, Anxiety Disorders, etc. based on care elements that are evidence based and very useful to help these children over a longer period of time.

The problem however is the implementation of these protocols on a large scale in the different European countries because of the differences in organisation of care between countries, within and between care centers, and many other (financial) problems. A large positive input might be given when over the boundaries of countries, care centers would cooperate to exchange their protocols and the experience with these protocols in daily use, in order to achieve more generally accepted evidence based "care programs".

The ESCAP Conference in Dublin 2013 will focus on these care programs under the heading of "Quality of Care".

Keywords: *ESCAP*, *IACAPAP*, *AACAP*, *WPA*

W1-04-05
"Improving lives, avoiding tragedies"

Paramjit Joshi

American Academy of Child and Adolescent Psychiatry, President-Elect, Washington, USA

The American Academy of Child and Adolescent Psychiatry has approximately 8,700 members. The US faces dire challenges, a shrinking number of acute psychiatric beds for children and adolescents, a desperate lack of residential facilities, and insufficient outpatient treatment programs. But the current state of affairs extends beyond supply of providers and facilities. There is a stunning lack of understanding of mental illness in children and teens, and a seeming lack of will to address this as a nation. We are at a crisis not only in our country but globally and we must elevate mental health of children as a priority. In the US there have been repeated calls by major non-partisan institutions for a national commitment to the early identification of mental health conditions and intervention with effective services and supports.

- In 2010, the American Academy of Pediatrics called for all pediatricians to screen children and adolescents for mental illness and substance use.
- In 2009, the U.S. Preventive Services Task Force called for physicians across the country to screen for depression in adolescents aged 12–18.
- In 2009, the Institute of Medicine (IOM) called for schools, primary care, community-based organizations, child welfare and juvenile justice systems and political leaders to make prevention of mental illness and the promotion of mental health in youth a national priority.

- In 2003, the President's New Freedom Commission on Mental Health called for early mental health screening, assessment and referral to services to be common practice.

We need to change the conversation about mental health care. We all have an obligation to the youth of the world urgently so our children can thrive and can reach their potential.

Keywords: *ESCAP*, *IACAPAP*, *WPA*, *AACAP*

W1-05-01
Juvenile sex offenders: psychiatric disorders and recidivism

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Objective: Juvenile sex offending all too often is the reason of public commotion and concern. About 20 % of all rapes and 20–50 % of cases of child abuse are perpetrated by juveniles. However little is known on the psychiatric characteristics and recidivism rates of these youths. In the present study prevalence of psychopathology in juveniles who sexually offend (JSO) as well as subgroups of JSO and its relation with criminal recidivism 5–8 years later were investigated.
Method: A sample of 106 JSO (mean age 15.0 ± 1.5 years) referred to the Dutch Child Protection Board was classified into child molesters (N = 19), solo peer offenders (N = 29) and group offenders (N = 58). Psychiatric disorders were assessed by means of a semi-structured interview (K-SADS-PL), the level of functioning by means of the Children's Global Assessment of Functioning Scale (CGAS) and recidivism was ascertained from official registration systems.
Results: Three quarters of JSO met criteria for at least one psychiatric disorder and almost two-thirds were functionally impaired. Child molesters showed higher rates of internalizing disorders and had a lower overall level of functioning than other subgroups of JSO. Thirty-seven percent of the participants reoffended sexually; child molesters more often than group offenders. In general, sexual recidivists had more psychiatric problems than JSO who did not sexually reoffended.
Conclusions: Child and adolescent psychiatric care should be given to JSO, with particular attention to internalizing disorders. This is not only important to protect the development of the juvenile but also to reduce sexual reoffending. Implications for future research and clinical practice will be discussed. Also an overview of other research on juvenile sex offenders at the department of Child and Adolescent Psychiatry at the VU University medical center Amsterdam will be given.

Keywords: *Sexual offending juveniles*, *psychopathology*, *psychiatric disorders*, *recidivism*

W1-05-02
Forensic academic workplaces to facilitate the collaboration between forensic sciences and forensic practice

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In The Netherlands recently two academic forensic workplaces have been initiated in order to improve the matching between science and practice. In the midwest of our country Youth Institutions LSG-Rentray and Teylingereind work together with the Child and Adolescent departments of the Leiden University and the Amsterdam VU University Medical Center; in Rotterdam the forensic day treatment centre De Nieuwe Kans collaborates with the Amsterdam VU University Medical Centre. LSG-Rentray and Teylingereind are closed settings where youths are admitted under a (civil or penal) court measure. De Nieuwe Kans is a day treatment centre admitting young adults (18–27 years old) placed either by the court or referred by youth assistance agencies of mental health centres; more and more young people 'refer' themselves advised by peers who had benefited the Nieuwe Kans intervention. Both worlplaces are directed by a stearing board where professors of child and adolescent psychiatry (Robert Vermeiren, Leiden and Theo Doreleijers Amsterdam/Rotterdam) chair these boards. Postdoc team members supervise the phd-students on a daily basis and coordinate the proceedings. Both projects are financed by ministeries, National Research Council and private funding. Now, seven phd-projects are set up concerning (1) neurobiological research in criminal brains, (2) the involvement of parents in the treatment of youths in detention centres, (3) the effect of treatment of forensic youths, (4) forensic and justice trajectories which lead to admission in forensic settings, (5) non-verbal diagnostic assessment in detained youths etc. Intensive collaboration is needed to run this type of workplaces. In order to bridge the gap between science and practice the PhD students are preferably employed in the research teams as well as in the institutional settings. In this presentation a first evaluation will be presented including tips and tricks to overcome unavoidable problems which may occur.

Keywords: *Forensic academic workplace*, *adolescents*, *forensic treatment*, *research*

W1-05-03
A residential treatment program for adolescent delinquents with mental health disorders in Belgium. Towards implementation of a functional family therapy program

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Background: Adolescents with underlying psychiatric problems who have committed an offence have a major social impact and have

received increasing media attention in most western countries. The Ministry of Health gave the resources in 2004 to start with a forensic residential care-unit for young people in Antwerp.

Methods: From October 2004 until 2009 about 73 adolescents were admitted to a child and adolescent psychiatric setting in Antwerp and followed an evidence-based residential treatment program. From 2010 until now we adjusted the residential treatment program by implementing functional family therapy (FFT) as an outflow-program. In addition to the collection of cross-sectional data, we collected follow-up parameters regarding recidivism.

Results: Descriptive data concerning psychopathology and psychological wellbeing will be shown. Moreover, risk and protective factors on recidivism and recidivism rates will be discussed.

Conclusion: The debate will be conducted on the evidence for residential treatment programs and the public will be invited to share their experience on alternative (semi)-residential treatment programs.

Keywords: *Residential care*, *forensic child and adolescent psychiatry*, *functional family therapy (FFT)*

W1-05-04

Adolescent forensic services in Finland

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The age of criminal responsibility in Finland is 15 years. There is no specific juvenile court, but young offenders aged less than 21 are sentenced according to milder scale of penalties. Minors under the age of 18 are rarely imprisoned as alternative consequences, expected to offer better opportunities for diversion, are preferred. Antisocial and offending behavior by children and adolescents under 15 years is primarily dealt with in child welfare services that also play a major role in diversion of offenders aged 15–17. Affective violence by minors is commonly met with referral to child and adolescent psychiatric services, and not necessarily investigated by police nor brought before court. Correctional schools, 8 in the country, form the most secure setting within the child welfare system and admit juvenile delinquents, however not based on court order but under child welfare legislation. Since 2003, two adolescent forensic psychiatric units, 12 beds each are in operation. Minors are referred mainly through civil psychiatric services and present with severe mental disorders and persistent and noncompliant violent behaviors. Formal forensic psychiatric assessments to examine a minor offender's capacity to criminal responsibility are rare (0–2 per year) and take place mainly in relation to severe violent or sexual crime. Court requests the formal forensic psychiatric assessments that are carried out on inpatient basis in the adolescent forensic units. Based on the reports of the forensic assessment, the court may find the offender lacking criminal responsibility. This usually results in formal forensic psychiatric treatment order, which is, however, extremely rare among minors. Adolescents treated in the forensic units mainly present with extensive socioeconomic and psychosocial disadvantages and long-term developmental difficulties, educational difficulties and severe impulse and affect control problems. Treatment approaches comprise environmental, individual, group- and family interventions, and both medical, psychosocial and educational approaches. Tailoring after care arrangements is of outmost importance to maintain skills and symptom control obtained in the inpatient care.

Keywords: *Adolescent forensic service*, *juvenile delinquency*

W1-05-05

Adolescent forensic psychiatric services across Europe: an EFCAP symposium II

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Adolescents with severe offending behaviours, particularly violence, pose a challenge to health, social and justice services. It is known that a majority of minors with persistent offending behaviours suffer from mental disorders and developmental problems that are largely unmet when they face the consequences before the law. Their unmet needs are likely to maintain the risk of reoffending and persistent marginalization. Youth justice systems, child welfare services and mental health services differ vastly across Europe. This symposium aims at giving a view at adolescent forensic psychiatric services in different European countries. Through multiagency team work England has succeeded in reducing number of young people in custody down from 3,000 to 1,700 and in diverting far more with mental illness into appropriate services, although change takes time. In Belgium, the Ministry of Health gave the resources in 2004 to start with a residential treatment program for adolescent delinquents with mental health disorders in Antwerp. From 2010 until now the treatment program was adjusted by implementing functional family therapy (FFT) as an outflow-program. Descriptive data concerning psychopathology, wellbeing and recidivism rate will be presented. In Finland, minors only exceptionally end up imprisoned. Child welfare services play a major role in diversion. For young (violent) offenders with severe mental disorders, two adolescent forensic psychiatric inpatient units have been available for 10 years. Experiences of the first of these units are reviewed. EFCAP is the organization for European Forensic Child and Adolescent Psychiatry, Psychology and other involved Professions, with members in Europe as well as in other countries. The aims of **EFCAP** are (1) to improve the assessment and treatment of children and young people who find themselves in the justice system as well as their families and carers; (2) to improve facilities and to facilitate joint international scientific research; (3) to promote interdisciplinary training and interdisciplinary education; (4) to exchange data obtained from research and to exchange practical experiences and innovative research and treatment methods; (5) to gather information on and to contribute to national and European policy, in so far as this policy affects young people; and (6) to raise awareness of the need for constant change in the criminal and civil justice systems, so as to provide as well as possible for the interests and the development requirements of children and young people. An introduction to EFCAP work and invitation to join are presented.

Keywords: *Adolescent forensic services*, *juvenile delinquency*

W1-06-01

Empathy and pro-social behaviour in 6–7 year olds diagnosed with ASD

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Objectives: Deficits in empathy have been observed in children and adolescents diagnosed with autism spectrum disorders (ASD). Likewise, reduced levels of pro-social behaviour have been suggested in ASD children. The aim of the present study was to explore parent and teacher reported empathic traits as well as pro-social behaviour in early elementary school children with ASD.
Methods: Six and seven year old children with ASD ($n = 21$) were compared to an age and gender matched healthy control group (HC) ($n = 27$). Parent and teacher ratings of affective (AE) and cognitive (CE) empathy were assessed with the Grifith Empathy Measure (GEM). Pro-social behaviour was measured during a computer ball game task, the interpersonal response task (IRT). The IRT is a computer ball game assessing the extent to which the participant will ignore or help a distressed child. (i.e., prosocial response).
Results: Children with ASD were rated as having less cognitive empathy by both their parents and teachers compared to the HC ($p < 0.05$). However, no differences were found between groups in affective empathy reported by parents ($p > 0.50$) or teachers ($p > 0.50$). Furthermore, children with ASD did not show less pro-social behaviour assessed with a computer tasks ($p = 0.65$).
Conclusion: The results from the present study in 6–7 year olds seem to indicate children with ASD are primarily impaired in cognitive but not in affective empathy. This may be interpreted as an indication that children with ASD do show signs of distress when observing emotions of others. However, they seem to be impaired in their interpretation and cognitive processing of these emotions. The undisturbed pro-social behavior during a computer task suggests ASD children have pro-social responses similar to healthy control children at least in a laboratory setting.
Keywords: *Empathy*, *prosocial behaviour*, *children*, *autism spectrum disorders*

W1-06-02

Co-occurring symptoms in a mixed clinical sample of children with autism spectrum disorders

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Background: Autism spectrum disorders (ASDs) often co-occur with other psychiatric, neurologic, or medical diagnoses. Sub-syndromal problems and even psychotic symptoms are often neglected although these may have almost equally significant impact on the identification, treatment needs, functional status, and progress of children with ASD.
Objective: This study examined co-occurring problems as rated by parents on the CBCL.
Method: CBCL data on clinically referred and assessed 6 to 16-years-old children with ASD ($N = 110$) were compared with equivalent data from age and gender matched typically developed reference children ($N = 220$).
Results: Mean age of the ASD sample was 11.0 (SD 2.6) and 90 % were males. Mean CBCL total problem score was 61.1 in the ASD sample and 16.8 ($SD = 14.0$) in the reference sample. The most prevalent comorbid problem in the ASD group was rage tantrums in 75 % of cases. Convulsions were 15.2 and obsessions 5.6 times more prevalent in ASD vs. controls. In the ASD group 9.4 % were reported as self injurious vs. only 0.9 % in the control sample. More results and comparisons will be presented at the conference. Also scores on CBCL subscales with special focus on thought problems and anxiety will be presented and discussed.
Conclusions: These data highlight the need for clinicians to keep in mind the high prevalence of co-occurring problems in combination with an ASD diagnosis. Other symptoms or disorders may mask the core symptoms of ASD and lead to delayed diagnosis. Comorbidity may even be the main focus in tailoring the most effective treatment program. CBCL is an excellent screening tool in that aspect, before or as an alternative to more comprehensive psychopathological assessment of comorbidity.
Keywords: *Autism Spectrum*, *comorbidity*, *CBCL*

W1-06-03

Animated theory of mind (AToM): differences between explicit and implicit theory-of-mind performance in high-functioning autism spectrum disorders, eating disorders and typically developed adolescents?

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Background: Theory of Mind (ToM) impairments in individuals diagnosed with Autism Spectrum Disorders (ASD) are seen as one of the substantial core deficits of the disorder. The distinction between explicit and implicit ToM (eToM/iToM) is currently a central research issue. It's only recently that ToM-Deficits are investigated in other psychiatric conditions like eating disorders. There's just a small number of investigations concerning ToM-deficits in Anorexia Nervosa (AN) with inconsistent results. Some studies underline impaired emotion recognition skills, some do not.
Aim: Investigation of the extent of eToM and iToM-deficits by means of a newly developed video-based ToM-Test (Animated Theory of Mind Test, AToM; Schaller and Rauh 2011) together with established ToM-Tests (False Belief Tasks, Faces Test, Reading-the-Mind-in-the-Eyes Test, MASC) in male adolescents with high-functioning ASD, female adolescents with Anorexia Nervosa compared to neurotypical male (MT) and female adolescents (FT).
Method: 85 adolescents, aged 14–18 years (ASD: $n = 25$, $IQ = 106$; AN: $n = 19$, $IQ = 111$; MT: $n = 22$, $IQ = 104$; FT: $n = 19$, $IQ = 104$) participated in the AToM and other established ToM-Tests. The AToM-Test is based on a nonverbal Stop-Motion-Animation-TV-Series. The Stop-Motion-Movie pauses at relevant scenes and specific questions concerning eToM (e.g. 1st/2nd order belief tasks) and iToM (e.g. facial emotion categorization) of the protagonists are asked.
Results: Significant differences in eToM and iToM were found in ASD compared to MT. ASD showed poorer performance in general. In particular, we found a significant difference of iToM vs. eToM performance in ASD due to more pronounced deficits in iToM that cannot be seen in MT. The interaction between groups and ToM-Type however just barely fails to be significant. Comparing AN performance with those of FT, we neither found significantly poorer ToM performance in general nor for the subtypes iToM and eToM.
Conclusions: In sum, the results from the AToM-Test strongly corroborate the assumption of an overall deficit in ToM concerning ASD but not in AN. As abilities in solving eToM tasks seem to be less impaired in ASD, the deficits in iToM tasks (e.g. facial emotion

recognition) are notably worse. Using the AToM as a complex test, based on animated and dynamic stimulus material, differences between individuals with ASD and neurotypicals seem to emerge with differential severity for both subtypes of ToM.

Keywords: *Autism spectrum disorders*, *eating disorders*, *anorexia nervosa*, *implicit theory of mind*, *explicit theory of mind*, *AToM-Test*

W1-06-04

A psychosexual training program for adolescents with autism spectrum disorders (ASD); the first effects of the tackling teenage training

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Background: Adolescents with ASD seem to have similar psychosexual needs to typically developing adolescents, but lack the necessary knowledge and social skills to fulfill these needs (Hénault 2005; Mehzabin and Stokes 2011). Therefore, an individual training program was developed in The Netherlands targeting the psychosexual development of adolescents with ASD; the Tackling Teenage Training (TTT).

Objectives: To investigate the effect of the TTT on knowledge, skills, self-esteem, vulnerability, deviant behaviour of adolescents with ASD and worries of parents and adolescents with ASD.

Methods: The TTT consists of 18 weekly individual sessions with the adolescent and a trained professional. Knowledge of puberty and sexuality (measured with a self-report knowledge test) and psychosexual development, measured with the newly developed Teen Transition Inventory (TTI; self-report and parent-report version) were administered before (T1) and after the training (T2). We conducted a pilot study and are now conducting a Randomized Controlled Trial (RCT), with a control condition and an intervention condition ($N = 150$). At this point we have data of a Dutch sample of $n = 74$ at T1 with a mean age of 14.8 years (SD 1.92), mean TIQ 102.9 (SD 12.93), mean SRS total score 102.9 (SD 24.03). 74 % of this sample is male. We have T2 data at this point of $n = 21$.

Results: Knowledge regarding puberty and sexuality increased significantly with a mean of 26 correct answers at T1 to a mean of 34 correct answers ($p < 0.001$) at T2. Parents reported a growth in skills in their children, for instance in recognizing boundaries (T1: 0 %, T2: 30 %, $p < 0.05$). More adolescents reported that they are satisfied with their own bodies (T1: 24 %, T2: 71 %, $p < 0.05$) and adolescents reported less problems making friends (adolescents T1: 25 %, T2: 9 %, $p < 0.05$). Generally the worries of parents and adolescents about the future decreased, for instance parents reported to worry less about the vulnerability of their child after the TTT (T1: 67 %, T2: 65 %, $p < 0.05$). However, parents reported more worries about the future autonomy of the adolescent (T1: 76 %, T2: 86 %, $p < 0.05$).

Conclusions: The first results show that the TTT generates a positive outcome regarding knowledge about puberty and sexuality, social skills and worries of parents and adolescents. However, some worries about the future increased. The increase in worries can possibly be explained through better insight in the difficulties of their child.

Keywords: *Autism*, *ASD*, *psychosexual development*, *quality of life*

W1-07-01

Child and adolescent mental health services in an urban population: a clinical and research approach

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Mental disorders, as a whole, are the leading cause of disability world-wide and its cost represent between 3 and 4 % of the gross domestic product in developed countries. They have their onset typically during the childhood or the adolescence with also their correspondent societal cost, in terms of their burden on individuals and their families. The evidence-based model of research and clinical practice that has been implemented in the Child and Adolescent Psychiatry Department has become a reference on clinical management and excellence on research within the mental health community in Spain. In this sense, members of this service are playing a major role as key advisors for the development of a Roadmap for Mental Health Research in Europe and are frequently contributing to the development of treatment guidelines for mental disorders emerging in childhood and adolescence. The Child and Adolescent Mental Health Service within the General University Hospital Gregorio Marañon in Madrid works from an integrated model incorporating clinical, research and training. This model comprises 6 early intervention clinical programs and 8 research programs with over 28 research projects nationally and European funded with major focus on Schizophrenia, bipolar disorder and early onset psychosis. The staff comprises more than 15 clinical (all research collaborators and 5 of them part time dedicated to research) and 30 research staff full time dedicated to research. This model has been successful on providing treatment to patients and their families, to ensure optimal outcomes, and attracting funds for research on key relevant areas for improvement on service delivery, early treatment and new targeted areas of intervention. Implementation of clinical and research programs and preliminary results derived from main studies and their implications for clinical practice would be discussed.

Keywords: *Clinical programs*, *Early intervention*, *translational research*, *childhood*, *adolescence*

W1-07-02

PIENSA: Programa de Intervención en Psicosis Adolescente. Design of a psychoeducational group intervention program for adolescents with first episode of schizophrenia and bipolar disorder

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In the last two decades the number of psychosocial interventions in schizophrenia has increased. The use of these interventions has lately been expanded to the early stages of psychotic disorders. Specific programs for first episodes of psychosis are based on studies showing the importance of early intervention to improve the prognosis and course of these disorders and have shown superiority versus standard treatments. Specifically, the PIENSA Program (based on Mc Farlane′s Multiple Family Therapy and adapted to

adolescent population) was born as a pilot study based on previous research demonstrating the importance of early intervention in first episode psychosis in order to improve the understanding, coping and prognosis of the disorders. It is particularly based on studies demonstrating the usefulness of psychoeducational interventions to improve treatment adherence and relapse prevention. The last goal of our program is to integrate a specific therapeutic program in the attention plans offered to adolescents with early onset psychosis and their families within the public health system, right after their first episode.

In this symposium presentation, we aim to:

1. Review the main strategies for psychosocial intervention in early onset psychosis and specifically in adolescent population.
2. Describe the PIENSA psychoeducational program for adolescents with a first episode of psychosis and their families.
3. Provide knowledge on the various psychoeducational intervention tools implemented in our program.
4. Present the preliminary results of our research about efficacy in relapse prevention of PIENSA Program.

Keywords: *Early onset psychosis*, *adolescents*, *psychoeducational intervention*

W1-07-03

ATRAPA: actions for treatment of personality disorders in adolescents. Severe emotional instability over the course of adolescence

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Most personality disorders emerge during late adolescence. Multiple studies confirm the validity and stability of the diagnosis of emotional instability disorder in adolescence. In the last decade the dialectical behavior therapy (DBT) developed by Marsha Linehan has experienced a great development because of studies testing its effectiveness to improve the prognosis of patients with personality disorders, especially in patients with high suicide risk and emotional instability. Dialectical behavior therapy is a structured and manualized therapeutic approach which makes it easy to be implemented in a public health environment. The ATRAPA Program was developed with the aim of providing psychotherapeutic treatment for adolescents with personality disorders (especially with suicide risk and high emotional instability) and their families in our area. We would assess the usefulness of the program to improve family communication and the patient's prognosis. The main objective of this program, adapted from Marsha Linehan's DBT therapy, is to promote adherence to treatment and development of skills that can reduce the frequency and severity of the crisis in the adolescents and their families. ATRAPA takes action in the inpatient and outpatient units and is consolidated as an intensive outpatient group and individual treatment. The aims of this presentation are (1) to review the theoretical background in order to broaden our understanding of borderline personality disorder and the treatments that have emerged throughout the history, (2) to gain knowledge of the theoretical bases, rationale, objectives and strategies of dialectical behavior therapy, and (3) to describe the dialectical behavioral intervention carried out in the intensive outpatient treatment program in order to illustrate the application of this therapy in adolescent population and in the context of a public health service.

Keywords: *Clinical programs*, *personality disorders*, *early intervention*, *adolescence*, *emotional instability*

W1-07-04

AMITEA: a comprehensive medical care programme for autism spectrum disorders in an urban population

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Health problems are more frequent among people with autism spectrum disorders (ASD) than in the general population. Many of these medical problems are frequently undetected or detected in advanced phases of the illness and may contribute to the elevated mortality rate among ADS patients (2–5.6 times higher than expected). Almost all children and adolescents with ASD display communication impediments to identifying pain, reporting discomfort and describing symptoms. These, together with the fact that medical issues may subsequently create or exacerbate maladaptive behaviours that can be misunderstood and can hinder the recognition and treatment of medical conditions, may explain the severity of medical comorbidity in this population. Considering the increased prevalence of ASD (which affects 1 in 150 children), the treatment of these patients has become a community health problem with important implications for medical resources, in terms of cost, delivery, and organisation of the health system. In order to overcome this difficulties, a Comprehensive Medical Care Programme for Autism Spectrum Disorders (AMITEA) aiming to attend to the specialty medical needs of individuals with ASD has been set up at Gregorio Marañón General University Hospital in Madrid (Spain). This programme was built in the general health care system of Spain, which is predominantly funded through general taxation and it is intended to provide universal access. The specific objectives set for the programme were (a) to make the differential diagnosis of medical and behavioural conditions, (b) to follow all psychiatric conditions, (c) to deal with problems of daily living, (d) to centralise all possible medical and nursing procedures, and (e) to refer, coordinate, and follow up on all medical specialty needs. In this presentation we will describe the program in detail and will report on the first 3 years of running.

Keywords: *Autism spectrum disorders*, *comorbidity*, *health care system*

W1-07-05

Early intervention in mental disorders: specific programmes developed in an urban setting in Spain

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Adolescence is a critical period for mental health, as most severe mental disorders, including psychotic and affective disorders, but also personality disorders, frequently have their onset during this period. In fact, early signs of psychiatric illnesses can be seen as soon as early childhood, causing a negative impact on social and family functioning as well as on academic performance and future vocational outcome. Early identification and intervention would be determining factors for minimizing patient consequences of illness progression and its impact on functioning at different levels, as well as on the global economic burden of mental disorders to society. Specific programmes within the mental health system therefore appear to be a promising and efficient strategy for meeting this objective. In this symposium we provide an overview of the early-intervention programmes developed within the Child and Adolescent Mental Health Services at Hospital Gregorio Marañón (Madrid, Spain), a general hospital covering a catchment area of 3,500,000 inhabitants. This venue, integrated into the public health system, offers an integrative and translational approach to mental health issues, combining clinical and research work. Outpatient and inpatient clinical and research programmes will be discussed. Three specific programmes will be described in more detail: PIENSA, an early-intervention programme for adolescent psychosis; ATraPA, a programme aimed at treatment of personality in adolescence; and AMITEA, a pilot programme on medical treatment of autism spectrum disorders including psychiatric comorbidities. Efficiency and implementation issues will be stressed during the presentations.

Keywords: *Mental health services*, *psychosis*, *personality*, *research*, *autism spectrum disorders*

W1-08-01
Adolescent identity treatment (AIT): an integrative approach for personality pathology in adolescence

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Personality disorders can be seen as patterns of maladaptive personality traits that have their onset in childhood or adolescence and have an impact on the individual throughout the lifespan. One of the most central tasks in normal adolescent development is the consolidation of identity. A well-integrated identity with flexible and adaptive functioningplays a role in self-esteem, a realistic appraisal of self and others, and insight into the effect one has on another across situations and across time. In contrast, identity diffusion is viewed as a lack of integration of the concept of self and significant others. This leads to a loss of capacity of self-definition and commitment to values, goals or relationship and implicates a painful sense of incoherence. This is often observed in adolescents with personality pathology as unreflective, chaotic and contradictory descriptions about themselves and others and the inability to perceive those contradictions. Paulina Kernberg elucidated a model for understanding identity pathology in children and adolescents. Her emphasis was on the need to differentiate those with normal identity crisis in adolescence from those with identity diffusion. Identity crisis usually resolves into a normal, consolidated identity with flexible and adaptive functioning; whereas identity diffusion is viewed as the basis for subsequent personality pathology, including BPD, leading to a broad spectrum of maladaptive and dysfunctional behaviors. An incompletely integrated identity may additionally manifest in chronic emptiness, contrary behavior and superficiality or in other signs of weak ego-strength like poor anxiety tolerance and lack of impulse control. Adolescent identity treatment (AIT) focuses on the improvement of identity pathology as the core characteristic of personality disorders. This workshop will present current issues on treating personality disorders (PD) in adolescents from a psychodynamic and integrative perspective. AIT integrates modified elements of transference focused psychotherapy (TFP: an empirically supported treatment of personality disorders in adults) with psycho-education, behaviour-oriented home plans and family work with parents to support the therapeutic process of the adolescent. Differential diagnosis and assessment, specific strategies, tactics and techniques for the treatment of personality pathology adolescents with AIT, and modification for adolescents with substance use and eating disorders will be presented and illustrated with video case examples.

Keywords: *Psychotherapy*, *adolescence*

W1-08-02
Modern milieu-management technique in reduction of length of stay in complex CAMHS in-patient unit

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The milieu of an inpatient facility is considered an active treatment modality[1] with structured and unstructured components, critical to a therapeutic adolescent in-patient unit. It is founded on the principle that all facets of the atmosphere that the patient experiences influence his or her care and recovery. The milieu offers opportunities to acquire adaptive coping skills within a nurturing but secure physical facility and tranquil atmosphere from where they can be safely tested. Although originally implemented in long-term care settings, the concepts of milieu therapy are now applied in short-term inpatient and community settings as well[3]. There has unfortunately been a drought of research and data in this area in recent years with emphasis on medical management and managed care[2]. It has been shown that every program has its milieu, whether deliberately created or not and the tone of the milieu is often a program's most telling feature. The milieu if left unattended can oppose other prescribed treatment interventions[2] and there is well documented increased use of medication or restrictive measures when the milieu therapy fails[4]. Hence impacts on outcome, physical restraints and length of stay (LOS). A negative milieu can be a major factor in adverse clinical outcomes whereas milieu neutrality enhances positive behaviour. This workshop explores the enhancing and cumulative economic cost-savings effect of a well nurtured therapeutic milieu on other prescribed treatment interventions and the consequent beneficial measurable outcomes; especially reduction in aggression, physical restraints, pharmacological intervention and LOS.

Speaker 1: Looks at the history and meaning of therapeutic milieu and the evolution of its concepts into application in short-term inpatient and community settings. Also discusses challenges with implementation of a therapeutic milieu in the face of current societal contextual changes and economic constraints.

Speaker 2: Explores how milieu therapy lends itself to universal application of therapeutic approaches and promotion of positive behavioural management techniques as beneficial adjunctive interventions in reduction of internalized and externalized aggressive behavior in adolescent in-patient unit.

Speaker 3: Evaluates the components of Modern Milieu Management Techniques which enable it to handle any mix of patients, address perennial resource constraints and manage intra therapy dynamics yet deliver desirable clinical outcomes.

Speaker 4: Appraises other treatment interventions jointly implemented with milieu therapy and how the latter potentiates their efficacy; demonstrated in steep and sustained drop in HONOSCA (Health of the Nation Outcome Scales for Children and Adolescents) scores. Shows how this consequently translates into pro-social behavior, better emotional regulation, reduced medication use and physical restraints as well as LOS.

References:

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Keywords: *Milieu therapy; adolescent in-patient*

W2-01

Breaking Down the Boundaries : Comorbidity of Mental and Physical Disorders

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Although there has been substantial information on the associations between mental disorders and specific physical conditions such as anxiety and asthma in both adults and youth, there has been limited information on the broader patterns of associations of these conditions in general population samples. There is substantial impact of mental and physical comorbidity in adults including increased mortality (cancer, COPD, stroke, heart disease), greater health care costs, poorer treatment response, and more functional impairment. The aims of this lecture are to: (1) describe the background and evidence on the patterns and impact of comorbid mental and physical disorders in adults; (2) discuss methodological challenges in investigating mental-physical comorbidity; (3) present patterns of mental-physical comorbidity in community studies of children; and (4) summarize the clinical significance and impact of mental-physical comorbidity in youth.

Systematic review of the rates, patterns and impact of physical disorders across international community surveys of mental disorders in children and adolescents revealed that there were few studies that collected sufficient information to yield estimates of comorbidity with the most frequent physical disorders in children including allergies, asthma, headache, and gastrointestinal problems. Methodologic challenges in studying this association include the lack of comparability of diagnostic assessment of mental and physical disorder, different associations with disorder subtypes, variation in prevalence periods for disorders, and different sample sources for the medical and psychiatric disorder index probands. Specific results of analyses of the patterns and impact of mental and physical disorders in the National Comorbidity Survey Adolescent Supplement, the National Health Examination and Nutrition Survey in the US and the Neurodevelopmental Genomics project at the University of Pennsylvania (R. Gur et al) will be described. Potential explanations for poorer treatment response and outcome of those with this comorbidity include comorbidity as a general marker of severity, primary or secondary inflammatory/ immune processes underlying one or both conditions, general sleep and appetite disturbances, poorer health behaviors, increased stress reactivity, and/or poorer compliance with treatment.

Keywords: comorbidity, epidemiology, medical disorders, mood disorders, anxiety disorders, behavior disorders, ADHD

W2-02

Recent progress in the genetics and genomics of ASD

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The genetics of neuropsychiatric disorders has reached a tipping point. After decades of halting progress, there have now emerged several clear paths forward for the systematic discovery of highly reproducible risk genes and regions. In disorders of childhood, recent research into the genetic contributions to autism spectrum disorders (ASD) has been particularly productive. While only a small portion of the overall predicted heritability has so far been clarified, the study of de novo mutation has nonetheless provided critical insights into the genomic architecture of ASD, the highly complex relationship between genetic mutation and behavioral syndromes, and the nature of key molecular mechanisms playing a role in risk. This talk will provide a selected overview of progress in the genetics and genomics of ASD over the past decade with a particular emphasis on recent discoveries from the application of high throughput genomic technologies to large patient cohorts. The implications of gene discovery and the attendant insights gained will be considered with respect to the identification of molecular and cellular pathophysiology and the development of novel treatment targets.

Poster Session I. Sunday

PS-001

Diagnostic problems of affective pathology in childhood

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The depressions “juvenile asthenic insolvency” are most frequent at pubertal age. Main disturbances: inability to concentration, distraction, difficulty of understanding of sense, “small ideational automatism”—“breaks” of thoughts, “shutdowns” of thoughts, parallel, chaotic and intertwining thoughts—up to full “thoughtlessness”. Frustration of thinking are accompanied by the anxiety and fear of “mind loss”. Disturbances of thinking stick out on against decrease of the activity, the increased intellectual and physical fatigue, decrease in motives and narrowing of interests. Obligate sign are cenestopathies, first of all headache. These conditions are treated as “exhaustion”, “a syndrome of chronic fatigue”, etc. For younger school the *stupid depression* with prevalence of ideational block is characteristic at absence or weak expressiveness of retardation in motive sphere and a poverty of depressive affect. Sharp falling of progress is noted. At the expressed and long character of a stupid depression there is the depressive pseudo-debility imitating mental deficiency. The main criteria for a differentiation of stupid depression from mental deficiency are timely intellectual development at early age, unreasonable loss of ability to education, repeatability of conditions of the “pseudo- debility” alternating with the periods of normal opportunities of education, gradual deepening of insolvency in study, multiple fragmentary affective symptomatology with daily mood swings, seasonality of intellectual opportunities are. The anxious- depressive syndrome is characterized by feeling of internal intensity, concern, causeless and empty anxiety at which disturbing fears of concrete character from time to time are noted, is frequent with a shade of transitivism. The motive concern, restlessness, aspiration for continuous change of a place, strengthening of psychomotor excitement in evening and night time, sleeplessness are characteristic. Inability to concentration of attention on external events, to perception and assimilation of a training material is expressed. There is difficulty in differential diagnostics a subclinical condition with the hidden anxiety owing to an alexithymia natural to children's age. Aggression and self-aggression manifestations are characteristic. In a pediatric network these conditions are diagnosed by neuropathologists as ADHD. The picture of *a hypomaniacal condition* is extremely similar to ADHD also. Obviously, among children with ADHD diagnosis actually ADHD no more than 1/3, and in other cases is a question of affective disorders.

Keywords: Differential diagnostics, affective disorders, atypical depression, ADHD.

PS-002

Characteristics of the childhood and adolescent suicide attempts-our experience

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Objectives: In our study, we examined the characteristics of children and adolescents who were hospitalized in Clinic of Neurology and Psychiatry for Children and Adolescents after suicide attempt. Suicide attempts in children and adolescents present some specific features compared to adults. Regardless, investigate the characteristics of suicide attempts of children and young people are not so common in Serbia.

Methods: We have analyzed the period since 2006 to 2012 year. During the 7 years 71 patients (age up to 18 years) were hospitalized after suicide attempts. The diagnosis was made according to ICD-10 criteria. Data of these patients were analyzed (sex, age, method of attempting suicide, previous attempts, past psychiatric history).

Results: Most patients after a suicide attempt were hospitalized during 2012—16, at least 2006—6 patients. The mean age of the patients was 16.6. Of our 71 patients, 56 (78, 87 %) were female and 15 (21.13 %) were male. The youngest patient was 9 years old and female. 50 (70.42 %) of our patients had sucide attempt by drug overdose, 8 (11.26 %) by hanging, 6 (8.45 %) of them by cutting with sharp objects, 2 (2.81 %) by jumping and 5 (7.04 %) patients had attempted suicide by drug overdose and jumping or cutting. Anxiolytics were the most commonly overdosed drugs. Fifteen patients (21.13 %) had previous psychiatric disorders. Depression was the most common psychiatric disorder (70 %). Interpersonal conflict was the most common precipitating events (60 %).

Conclusion: Early screening and treatment of depression is important for the prevention of suicide attempts. Also, educate young people on how to solve interpersonal conflicts can be useful. It is necessary to restrict access to medicine for children and adolescents (selling drugs, storing drugs at home, etc.). Suicide prevention in children and adolescents must be one of the most important issues of mental health.

Keywords: Children, adolescents, suicide attempt.

PS-003

Use of new psychoactive substances among teenagers attending a specialized adolescent addiction service in Dublin, before and after a legislative ban on their sale

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Introduction: Youths using new psychoactive substances pose significant morbidity and mortality risks. They present major challenges to the acute hospitals and youth addiction services, there has been an increased number of Irish youths consuming these substances in the last 5 years. The EMCCDA (2010) reported that Irish youths demonstrate the highest prevalence of use of new psychoactive substances in Europe. The Irish government then responded by banning many of these drugs in May 2010 because of the numerous risk posed to the users, ready availability of the drugs in the community and the attendant pressure on the health system. Some members of the society have suggested that the ban may drive users to the black-market while doing little to reduce use. In the UK, Mesham et al. (2011) and Wood et al. (2012) found an increase in use of new psychoactive substance from 27 to 41 % among the sample surveyed (the South London night economy scene and gay dance clubs).

Aim: We sought to determine if the use of new psychoactive substances by teenagers with substance use disorders diminished following the ban on sale of new psychoactive substances in May 2010.

Method: Setting; The Youth Drug and Alcohol Service is a specialized service dedicated to meet the needs of teenagers with substance use disorder. Participants; Consecutive patients were included if under 19 years and had used any of the new psychoactive substance. Information was obtained using a structured assessment tool which examined lifetime and past month use of three categories of new psychoactive substances. These categories were 1/Smoked, cannabis like products, 2/Snorted products and 3/pills. In order to determine if there has been a change in use since the ban; clients were selected as 4 months pre-ban (February–May 2010), early ban period (June–September 2010) and post-ban period (October 2010–May2011). The X^2 test for trend was used to examine changes in proportions reporting use over these three periods.

Results: There were 102 participants of mean age 16.5 years; 18 % were females and 82 % males. Lifetime use of any of the new psychoactive substance fell from 78 to 54 % from the pre-ban period to the post-ban period ($p = 0.05$). There were reductions in rates of past month use over the study period for smoked products (37–7 %, $p = 0.001$), for snorted products (30–4 %, $p = 0.003$) and for pills (15–2 %, $p = 0.04$).

Keywords: Adolescent Substance Misuse.

PS-004

Use of parent administered picture activity cards to teach toileting skills in children with autism

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Objective: To create culturally appropriate picture activity cards of toileting and carry out an initial assessment on effectiveness of parent administered picture activity cards in a selected cohort of Malaysian children with autism.

Method: Preschool children with autism from Child Development Centre, UKMMC and other hospitals in Klang Valley were recruited through convenience sampling from clinic and autism public talk attendance. Parents were provided with picture activity cards which consist of a series of photographs of simple toileting steps to administer to their children using visual, verbal and manual prompts regularly for 4 months. Parents were trained to use the cards accurately and to complete checklist forms daily to monitor progress. TheVineland Adaptive Behavior Scales—Second Edition (VABS II) was administered before and after the 4 months to assess baseline functioning and to review progress.

Results: Out of the 17 patients recruited, only a total of 4 patients completed the study. Use of picture activity cards enabled two participants to master toileting skills. Of the remaining two, one could go to the toilet with verbal prompts while the other could do so with visual prompts. There were no changes in composite scores of VABS II before and after study although there was improvement in age equivalent of personal daily living skills in 3 out of 4 participants. Parents who defaulted cited time constraints due to work commitments resulting in children spending long hours at nursery and schools and difficulty in getting children to engage with picture cards as main reasons.

Conclusion: Picture activity cards can be used by parents to teach toileting skills to children with autism. Training by caregivers and special educators at schools in addition to parent training may result in better outcome.

Keywords: Picture activity cards, toileting, autism, children.

PS-005

Screening of mood disorders by the DETECTA-WEB program in Spanish children and adolescents

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Depressive symptoms in childhood and adolescence are an important risk factor for the development of mood disorders in adulthood. Few studies have addressed the study of the frequency and characteristics of the main symptoms of mood disorders in children and adolescent through a web-based early detection program in the school setting. Consequently, the aim of this work is to present the screening data of depressive problems in schools through the program DETECTA-WEB, a screening program for anxiety and depression. The sample consisted of 2000 Spanish children and adolescents (range = 8–17). They completed a demographic questionnaire, the DETECTA-WEB scale, the Revised Child Anxiety and Depression Scales (RCADS) and 200 were interviewed using the Anxiety Disorders Interview Schedule for DSM-IV, child version (ADIS-IV-C). We calculated descriptive data (M and SD) and frequency of symptoms based on the cut-off score (>2 SD), odds ratio and prevalence data following the ADIS-IV-C. The results indicated that the number of subjects detected by the major depression subscale of DETECTA-WEB stood at 4.4 %, with no differences by gender; while dysthymia subscale offered a percentage of 4.4 %, with a presence of more women (5.1 %) than boys (3.7 %). It must be highlighted that we found a 6.2 % of suicidal ideation in the sample (8.1 % in women vs. 4.4 % in men. The diagnostic interview offered values of 6 % for dysthymic disorder and 2 % for major depression. Odds ratios indicated that the depressive subscales of DETECTA-WEB and the total score predicted all diagnostic disorders according to DSM-IV-TR. To sum up, data are consistent with previous studies by showing estimates of prevalence and incidence of mood disorders around 4.5 % by interview and self-report. Thus, depressive scales of DETECTA-WEB questionnaire can be considered as a valid and useful tool for the screening of depressive symptoms and disorder in Spanish children and adolescents.

Keywords: Screening, psychological assessment, depression, Internet, new technologies.

PS-006

Use of nomination method in research of prevalence of substance consumption among schoolchildren

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Resistance to prevalence of addictive agents requires objective information about their use in different social groups. Receipt of reliable information always is a difficult task, because number of persons under official account decreases and number of “latent” users of addictive and psychoactive substances increases. One of the quickest and not expensive methods of assessment is use of questionnaire. Our practice has shown that direct questioning appeared to be not effective. An alternative may be use of nomination methods in study of latent substance use.

Objective of our research: Study of prevalence of substance use in organized adolescent groups.

Materials and methods of investigation: Sample of research included 502 persons at the age from 13 to 17 years, schoolchildren of Tomsk. We have applied the nominative method of questionnaire. Essence of method is as follows: respondent indicates number of persons out of his/her environment (nominees) with single or repeated experience of different substance use. Summarizing data in every organized relatively closed group we may judge about prevalence and structure of substance use. For comparison, the same contingent was questioned with use of questionnaires of direct questions.

Discussion: Data obtained during use of nomination questionnaire has shown that single experience of alcohol use was in 84 %, and repeated—in 75 % schoolchildren (direct questioning 58 and 3.4 %, respectively). 53 % tried to use cannabis, and 40 % of schoolchildren repeatedly used, single use of stimulants among adolescents was noticed in 18 %, and repeated use—10 %. Eight percent tried opioids, and 6 % of schoolchildren used repeatedly, single use of inhalators was noticed in 42 %, and repeatedly—in 26 % of schoolchildren. Answering direct questions, only 10 % confirmed their substance use and 1.5 %—repeated use. Significant weakness of indices, direct answers reflects strong dependency of the latter on the environment and conditions where the questionnaire was applied.

Conclusions: Thus, use of nomination method has shown the high level of prevalence of various substances use among adolescents and application of method in substance use investigations may serve the mean of revealing of latent substance use.

Keywords: Nomination method, substance use, schoolchildren.

PS-007

Critical literature review of “Eating Disorders and Monitoring of Physical Health in the Community”

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Aims: The vast majority of patient with eating disorders are treated in the community/out-patient setting and it is vitally important to monitor the physical health of these patients. Every patient must undergo a thorough baseline medical evaluation to determine physical state and detect medical conditions. This leads to the question about what needs to be measure in these physical assessments and how often? Little is known about the frequency of physical assessment that needs to be carried out and it is left on the clinician’s judgement to repeat physical examination and monitoring of bio-chemical parameters as necessary. The review will examine the evidence and current practice of physical health monitoring of eating disorder patients looked after in the community setting.
Methods: Asearch was performed of Medline, (1948 to November 2011) Embase, (1980 to November 2011) and PsycINFO (1806 to November 2011) using the NHS evidence search engine. The search was performed by using terms “eating disorders, anorexia nervosa, bulimia nervosa”, in combination with “physical health monitoring and community/out-patient”. The search was further extended to strengthen/support the review by including relevant guidelines including NICE (core interventions in the treatment and management of anorexia nervosa, bulimia nervosa, and related eating disorders CG9), American Psychiatric Association Practice, guideline for Treatment of Patients with Eating Disorders (2003), Guide to the Medical Risk Assessment for Eating Disorder (Prof Janet Treasure 2009), American Academy of Paediatrics (Policy Statement 2003), Position Paper of the Society for Adolescent Medicine (Journal of Adolescent Health 2003), Finnish Medical Society Guideline (Eating Disorders among children and adolescents, 2004), consultation draft for Junior MARSIPAN (Management of really sick patients under 18 with Anorexia Nervosa) guideline.
Results: 15 articles broadly discussed the topic in question with only two articles addressed the question directly. The conclusion that can be drawn from the review indicates that current evidence base doesn’t provide clear direction for the management and treatment of physical health of patients with eating disorders in the community/out-patient settings.
Keywords: Eating disorders.

PS-008

Response to measles-mumps-rubella vaccine in children with autistic spectrum disorders

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Introduction: Autism spectrum disorders (ASD) are behavioral syndromes with early onset, characterized by impairment in communication, social interaction and stereotyped or repetitive behaviors. Although the etiology is unknown, genetic, environmental, immunological and neurological factors may play a role in the pathogenesis. Measles–mumps–rubella (MMR) vaccination has been implicated as causal factor in ASD, via cross reactivity between some vaccine antigens and host tissues as SNC, a persistent infection induced by viruses constituting the vaccine. Therefore many studies examined this issue comparing the level of antibodies against MMR in children with ASD and healthy children, but the results are conflicting.
Aim: Aim of our study was to evaluate the rate of seropositivity and the titer of antibodies against MMR antigens in a cohort of children with ASD compared to controls.
Patients and methods: We enrolled 60 children, 31 with ASD and 29 controls. All of them underwent vaccination against MMR. Median age (5.75 vs. 5.75 years) and gender distribution (male rate = 83.9 vs. 86.2 %) were similar between cases and controls. Anti-measles IgG antibodies were detected using an enzyme-linked immunosorbent assay (ELISA) technique. Anti-mumps IgG antibodies were detected by a different ELISA technique (RADIM). Specific IgG against rubella virus were identified using an antibody capture chemioluminescence immunoassay (DIASORIN) and an automated instrument (LIASON).
Results: Seropositivity rate was similar in cases and controls (86.7 vs. 78.6 % for measles, $p = 0.499$; 36.7 vs. 20.7 % for mumps, $p = 0.176$; 86.2 vs. 89.7 %, for rubella, $p = 0.999$). Logistic regression analysis showed that neither age nor gender affected the seropositivity status for the 3 antibodies. Similarly, antibody titers against MMR did not differ between cases and controls. The generalized linear model revealed that neither age nor gender affected titers of the 3 antibodies. Moreover, the level of behavioral, communicative, social and intellectual impairment did not correlate with antibody titer or seropositivity status in ASD children.
Conclusions: In conclusion, children with ASD have a similar titer and seropositivity rate of antibodies against MMR vaccine as same-age controls. As persistent infections are typically associated with high antibody levels, our results constitute strong arguments against a role of MMR vaccination as a causal factor or cofactor of ASD.
Keywords: Autism spectrum disorder; MMR vaccination; titer.

PS-009

Behavioral profile of executive dysfunction in children and adolescents with autism spectrum disorder

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Background: A considerable number of studies have tried to explain the behavioral aspects of autism spectrum disorder (ASD) by relating its perseverative features to executive dysfunction; however, the results show inconsistent performances of executive measures in this disorder. In this study, BRIEF was used to compare EF components of a group of Iranian children and adolescents who had ASD with a typically developing (TD) group. The study also evaluated the possible links between executive dysfunction, autistic symptoms and behavioral difficulties.
Methods: The behavioural profile for EF measured by the Behavior Rating Inventory of Executive Function (BRIEF), was inspected in a 5–16 year old group of otherwise healthy participants with ASD (n = 34) recruited from a referral hospital-based child and adolescent psychiatry clinic compared to an age and gender matched normal group (n = 36). The childhood autism rating scale (CARS), the Strengths and Difficulties Questionnaire (SDQ), and the Raven Progressive Matrixes (RPM) were used to evaluate related variables.

Results: Based on BRIEF results in the ASD group, 88 % had impairment in working memory. The Inhibition scale had the highest mean score ($M = 71.76$), and the organization of materials scale had the least ($M = 57.03$). The sensory abnormalities scales of CARS and EF were correlated negatively. The CARS visual response was correlated with the Metacognition Index (=0.279, $p = 0.036$) and the Global Executive Composite (=0.267, $p = 0.043$) of BRIEF. Conclusions: A higher dysfunction in inhibition may reflect the developmental variation of EF in children with ASD and possibly a higher cognitive impairment of the group with comorbid ADHD symptomatology. Executive dysfunction related behavioural difficulties in normal individuals may suggest an effect of psychiatric backgrounds on EF profiles.

Keywords: Autism spectrum disorder; executive function; BRIEF; CARS; ADHD.

PS-010

The "Challenging Times" study of mental health in young Irish adults: An 8 year follow-up cohort study

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Background: There is a lack of epidemiological research on the mental health of young Irish adults.

Aims: To determine the prevalence of psychiatric disorders in a cohort of young Irish adults.

Method: The Challenging Times study was a landmark study of the prevalence of psychiatric disorders among Irish adolescents in the general population: 212 school children aged 12–15 years were recruited through schools selected using a stratified random sampling technique and participants were interviewed using the Kiddie-SADS semi-structured instrument. This cohort was traced again on average 8 years after the initial study at age 19–24 years (mean age 20.8 years) and interviewed using the SCID I & II. Main outcome measures were current and lifetime psychiatric disorders, including substance use disorders, and personality disorders.

Results: Follow-up rate was 80 %. Using a weighted population prevalence analysis 55.3 % had a lifetime mental disorder: 27.3 % mood disorders, 26.7 % anxiety disorders, 22.4 % substance use disorders, and 25.4 % had more than one disorder during their lifetime. Lifetime prevalence of binge-drinking was 73.5 %, lifetime cannabis use was 63.4 %. Significant suicidal ideation ever was reported by 19.2 %, and 6.7 % had attempted suicide. Psychotic symptoms had been experienced by 9.6 %. Prevalence of cluster A personality disorders was 2.2 %.

Conclusion: Lifetime prevalence of psychiatric disorder and substance use were high among this sample. Mental health service provision for this age group in Ireland is a priority.

Conflict of interest: None.

Keywords: Youth mental health.

PS-011

Effect of OROS methylphenidate on encopresis in children with ADHD: a retrospective chart review

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Encopresis shows a high rate of comorbidity with attention deficit hyperactivity disorder (ADHD) in childhood. However, the etiologic origin of this relationship and the effect of ADHD agents on encopresis are unclear. In this chart review, we aimed to explore the effect of OROS long-acting methylphenidate (MPH) treatment on encopresis in a group of children with ADHD. We also examined the relationship between clinical variables of ADHD and encopresis. The sample consisted of 21 children (20 boys and 1 girl) with ADHD and coexisting encopresis aged 7–15 years. Clinical characteristics and, baseline (visit 1) and at the end of the second months' (visit 2) Conners' Parent Rating Scale (CPRS) subscale scores of children were recorded. Retrospective clinician determinations were made using the clinical global impressions—severity scale (CGI-S) for encopresis severity and clinical global impressions—improvement scale (CGI-I) for encopresis response. The mean final OROS methylphenidate (MPH) dose was 25.7 ± 8.2 mg/day. According to the CGI-I, fourteen children (71.4 %) had much or very much improvement for encopresis at visit 2. All of the CPRS subscale scores decreased significantly over visit 1 through 2. No association was found between the CGI-I score and the changes in any of the CPRS subscale scores between visit 1–2. Baseline oppositional defiant disorder (ODD) and conduct disorder (CD) scores was correlated with CGI-S score ($r_s = 0.70$, $p < 0.001$ and $r_s = 0.61$, $p = 0.004$, respectively), whereas no association was found between core ADHD symptoms severity and CGI-S score. With regard to encopresis outcome, baseline CD score was negatively correlated with CGI-I score ($r_s = -0.51$, $p = 0.017$) and baseline ODD score was prone to show a correlation with CGI-I score ($r_s = -0.42$, $p = 0.061$). These results suggest that coexisting conduct disorder symptoms may be a vulnerability factor for thedevelopment of encopresis, and MPH treatment may have positive effect on encopresis course in children with ADHD.

Keywords: Encopresis, ADHD, methylphenidate.

PS-012

A Randomized double-blind study of atomoxetine vs. placebo followed by an open label extension period of treatment with atomoxetine for ADHD symptoms in children with ASD

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Objective: The primary objective was to examine whether atomoxetine is superior to placebo in the treatment of symptoms of attention-deficit/hyperactivity disorder (ADHD) in children with a diagnosis of autism spectrum disorder (ASD). Secondary objectives were to assess safety and tolerability of atomoxetine, to analyze whether ADHD symptom improvement was mediated by improvement in response inhibition and interference control, to assess the efficacy of long term treatment with atomoxetine on ADHD symptoms, to assess the course of adverse events, and the short and longer term treatment effects of atomoxetine on ASD symptoms.

Method: Children aged 6–18 with ASD and ADHD were randomly assigned to a double blind treatment with either atomoxetine or placebo in a 1:1 ratio. After a period of 8 weeks all patients who completed this period were invited to participate in an open-label extension for 20 weeks. Primary outcome measure was the ADHD Rating Scale IV-Parent version: Investigator scored (ADHD-RS-IV

P). Some of the secondary outcome measures were inhibitory control (as measured by response inhibition and interference control (Amsterdamse Neuropsychologische Taken (ANT)), the aberrant behavior checklist (ABC) and children's social behavior questionnaire (CSBQ).
Results: A treatment effect of atomoxetine was found for ADHD symptoms (ADHD-RS-IV P), hyperactivity (CTRS-R:S and ABC), inappropriate speech, stereotypies (ABC) and fear for changes (CSBQ)in the double blind treatment period. Furthermore, atomoxetine improved response inhibition but not interference control, independent from progress in ADHD-symptomatology. No serious adverse events were reported; reported events (mostly nausea and fatigue)were comparable for atomoxetine and placebo treatment. Long-term atomoxetine treatment further reduced ADHD-symptomatology (ADHD-RS-IV P and ABC-hyperactivity), while adverse events overall tended to subside. No beneficial effects of atomoxetine were found on social functioning.
Conclusions: Atomoxetine improved ADHD-symptomatology in children with ASD, independent from changes in inhibitory control, and was generally well tolerated. Adverse events were similar to those in other studies with ADHD patients without ASD. Continued treatment with atomoxetine further reduced ADHD symptoms. Future studies investigating the long-term efficacy of atomoxetine in children with ASD should be randomized and placebo-controlled.
Keywords: ASD, ADHD, atomoxetine, DBPCT, inhibitory control.

PS-013
Development of a practical motivational workbook for the treatment of anorexia nervosa

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Background: Anorexia nervosa is a severe psychiatric disorder and very difficult to treat. Although patients with anorexia nervosa express extremely thin body, many of them do not want to recognize the severe condition. They are reluctant to receive treatment for reconstructing healthy eating pattern because of fear of gaining weight. To make them face their problems and decide to recover from the illness, the practical approach to get them motivated is needed.
Objective: To develop a practical motivational workbook that can be used in the treatment of anorexia nervosa.
Method: Existing literatures on motivational intervention for anorexia nervosa patients who are in the contemplation stage were reviewed for the present study.
Results: As a task to enhance motivation of anorexia nervosa patients, eight tasks were finally selected. These are as follows: (1) Doing self-check of psychosomatic symptoms and understanding what psychosomatic symptoms are caused by low body weight; (2) Considering why disordered eating continues and understanding the vicious circle; (3) Making balance sheet to consider pros and cons of continuation of disordered eating; (4) Contemplating the changes in several domains of life after anorexia nervosa began; (5) Making the patient image what she will be like in 3 years; (6) Exploring pros and cons of having an extreme desire to be thin; (7) Making the patient image that her loved one has anorexia nervosa and discussing what she should do for her loved one; (8) Discussing the limitation of treatment with the patient if she does not get motivated.
Discussion: In Japan, most therapists including psychiatrists, clinical psychologists and clinical nurses are not trained for the treatment of anorexia nervosa. So, many therapists feel difficulty in treating anorexia nervosa patients mainly because they do not know what to do to get them motivated. This is one of the reasons why we conducted the present study. Some issues in using this kind of intervention will be discussed.
Keywords: Anorexia nervosa, treatment.

PS-014
Two case reports of kleptomania in youth

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Different psychiatric disorders are known to cause behavioral problems, but there are few reports regarding kleptomania. We report our experience of treatment for kleptomania in our institute. Case 1 is a 14 years old boy. He was examined at the out-patient medical facilities due to the theft cases he was involved in for over 1 year. He had no complaints related to emotional disturbance feelings, but we could confirm his depressive mood and anhedonia in consultation with his mother. We diagnosed kleptomania due to major depressive disorder. As treatment, 100 mg of sertraline improved his activity and depressive mood, after which his kleptomania disappeared. Case 2 is 16 years old boy. He was examined at our out-patient medical facilities due to many thefts he committed for over 2 years. He also presented auditory hallucinations consisting of hallucinatory third person commenting on his behavior, delusion of control and insertion of thoughts. His theft could be separated from his psychosis because no hallucination ordered him to steal anything and he stole with clear intention without uncontrollability. We diagnosed him with kleptomania due to schizophrenia, and treated him with 3 mg of aripiprazole. His psychosis disappeared and he never stole anymore. The difficulty of the impulse control is a common symptom of psychiatric illnesses. The two cases show us that secondary kleptomania can improve if we treat the primary illness. We can say that it is important not to overlook the primary illness which we can cure if this concurs in patients with kleptomania. In Japan most children and adolescents performing criminal activity, including theft, do not receive health care service. The Ministry of Education, Culture, Sports, Science and Technology of Japan reported that medical care and welfare intervened in only 8 % of such youth; the school counselors in only 3 %; but 11 % receive judicial intervention. Recently it is reported that individuals with kleptomania have high rates of suicide attempts. We propose the following:

1. We, as medical staff, should come more into contact with patients suffering kleptomania.
2. When we diagnose and treat kleptomania, we should pay attention to treatable complications.
3. Kleptomania may disappear if we administer appropriately the treatment of the concurring complications.

Keywords: Kleptomania, depression, schizophrenia, youth, adolescent.

PS-015
Birth weight, gestational age and weight for gestational age and the risk of Bipolar Disorder

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Background: Complications during pregnancy and the perinatal period have been associated with neurodevelopmental disorders like Schizophrenia and autism. However, similar studies on bipolar disorder (BPD) have been limited and the findings are inconsistent. The aim of this study was to examine the association between birth weight, gestational age and weight for gestational age and BPD.

Methods: This nested case control study, based on the Finnish Prenatal Study of Bipolar Disorders (FIPS-B) identified 727 cases and 1447 sex and date of birth matched controls from the Finnish population based registers. Conditional logistic regression was used to examine the association adjusting for the potential confounding due to maternal age and maternal psychiatric history.

Results: Post-term birth (gestational age of $\geq$ 42 weeks) was associated with an increased risk of BPD. Offspring with a gestational age of 42 weeks or more had a 1.6 fold (OR = 1.64, 95 % CI: 1.02–2.63) increased risk of developing BPD as compared to those born with a gestational age of 38–41 weeks. No significant associations were seen between birth weight and weight for gestational age and BPD.

Limitations: The limitations of this study include: representation in the sample of more severe cases of BPD in the population, missing the cases utilizing private health care services and the use of hospital based clinical diagnosis for case ascertainment.

Conclusion: While the association between post-term birth and BPD has not been previously reported, the lack of association with other potential risk factors is in line with the previous studies. These findings suggest that the indicators of fetal growth and development in general, are not associated with BPD.

Keywords: Bipolar disorder, gestational age, birth weight.

PS-016

Relation between disordered eating, sense of trust and perceived parenting in young women

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Background: Most young women pay attention to their body weight, shape and eating habits and disordered eating like extreme dieting and overeating is common. Many studies comment on subclinical cases who, while not fulfilling strict diagnostic criteria, present serious eating problems. Previous studies also reported several factors related to disordered eating in young women. The factors include past and current overweight, parental concern with eating and stress in social life and school.

Objective: The purpose of the present study was to investigate the relation between disordered eating, sense of trust and perceived parenting in young women.

Method: Subjects were 204 female students in a university. All were Japanese and gave us consent to participate in the present study. Their mean age was 20.4 (SD = 1.4) years. Their mean height and weight were 158.0 (SD = 5.1) cm and 50.6 (SD = 5.9) kg, respectively. Eating behavior, sense of trust and perceived parenting were assessed with the Bulimic Investigatory Test, Edinburgh (BITE), the Sense of Trust Scale (STS) and the Parental Bonding Instrument (PBI), respectively.

Results: The BITE symptom score showed a significant negative correlation with sense of basic trust score of the STS ($r = -0.31$, $p < 0.01$), a significant negative correlation with paternal care score of the PBI ($r = -0.15$, $p < 0.05$), and a significant positive correlation with maternal over-protection score of the PBI ($r = 0.25$, $p < 0.01$). Stepwise regression analysis showed that sense of basic trust score of the STS and maternal over-protection score of the PBI were independent predictors of the BITE symptom score. The BITE symptom score was not significantly correlated with sense of interpersonal trust of the STS and paternal over-protection score and maternal care score of the PBI.

Conclusion: These results indicate that low sense of basic trust and high maternal over-protection may lead to disordered eating in young women. It is also suggested that the mental health program to enhance sense of basic trust would be effective to improve disordered eating. It is said that interpersonal issue sometimes leads to disordered eating, but the present study suggests that sense of interpersonal trust is not an important factor of disordered eating.

Keywords: Disordered eating, sense of trust.

PS-017

Risperidone long-acting injection was effective in the treatment of two cases of anorexia nervosa adolescents with autism phenotype

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Background: Some patients with autistic spectrum disorder (ASD) or broader autism phenotype (BAP) treat their weight as their special interest, which leads to development of eating disorder. A variety of treatment strategies such as psychoeducational intervention, family therapy, cognitive behavioral therapy and medication have been used in the treatment of such cases. However, there seems to be difficulty in treating them well because of their rigid thinking pattern causing disordered eating and other problematic behaviors. We describe two anorexia nervosa patients with ASD or BAP in which risperidone long-acting injection (RLAI) was used in clinical settings in the child and adolescent ward of our hospital.

Cases: Case 1 was a 13-year-old girl with BAP. Three months after she started dieting, she became to refuse eating and showed aggressive outbursts and ritualistic behavior. She was admitted to our hospital and prescribed oral risperidone (1–2 mg/day), but she continued to refuse eating and taking medicine. With family consent, she was given RLAI 25 mg every 2 weeks. A significant improvement was evident about 6 weeks after RLAI treatment began. She became able to eat in a regular way. Moreover, aggressive outbursts were also improved. Case 2 was a 14-year-old girl with ASD. Four months after she started dieting, she became to refuse eating and then she was first seen by a psychiatrist. After that, she was admitted to our hospital and given oral olanzapine (5 mg/day), but her symptoms did not improve at all. Finally, she became to refuse drinking after she refused taking medicine strongly. With family consent, she was given RLAI 25 mg every 2 weeks. A significant improvement was evident about 8 weeks after RLAI treatment began. She became able to eat and drink in a regular way. Moreover, instead of aggressive outbursts, she became to talk about her feelings about eating, drinking and other things.

Conclusion: These two patients who expressed extreme refusal of food and drink seemed to reduce their abnormal eating behaviors through RLAI treatment. Although we should take possible adverse effects of RLAI into consideration, the results suggest that it can be used effectively in improving persistent symptoms including disordered eating behavior observed in anorexia nervosa adolescents with autism phenotype.

Keywords: Medication therapy, anorexia nervosa, autism phenotype.

PS-018

The characteristics of eating disorder inpatients in a Japanese National children's hospital

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Background: The incidence of eating disorders has been increasing in adolescent girls. Recently, it is reported that age of onset is becoming lower and chronic patients with a longer illness duration are increasing. To recover from physical complications or psychological symptoms, patients often need to receive inpatient treatment.

Objective: The purpose of the present study was to investigate the characteristics of eating disorder inpatients in a Japanese National Children's hospital.

Methods: 43 eating disorder inpatients treated between 2003 and 2012 in Kagawa National Children's hospital were examined retrospectively. Of them, 24 had a diagnosis of Anorexia Nervosa Restricting Type (AN-R), 5 Anorexia Nervosa Binge-Eating/Purging Type (AN-BP), 4 Bulimia Nervosa (BN), and 10 Eating Disorders Not Otherwise Specified (EDNOS).

Results: Anorexia nervosa inpatients achieved significant weight gain (obesity rate: −29.5 ± 8.0 % at admission and −14.5 ± 14.9 % at discharge). A significant improvement of Children's Global Assessment Scale (CGAS) was found in all types of eating disorders (25.1 ± 9.6 at admission, 46.0 ± 9.2 just after discharge, and 56.4 ± 17.6 6 months after discharge). The practical goals of inpatient treatment included improvement of physical crisis in AN-R and reduction of psychiatric symptoms such as anxiety and irritability in EDNOS. The CGAS score, age of onset, and age at admission in the second half of the decade was lower than that in the first half.

Conclusion: The results indicate eating disorder patients with low functioning have been increasing and age of onset have been becoming lower, although our inpatient treatment was effective to some degree in terms of gaining weight and improving global functioning. A practical goal of inpatient treatment for AN-R seems to be weight gain of 15 %. By achieving the goal, a significant improvement in CGAS score was attained both just after discharge and 6 months after discharge.

Keywords: Eating disorder, hospital treatment.

PS-019

Comparison between attention training and visual perception training in children with ADHD

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Introduction and objective: Pharmacological treatment of children with attention deficit hyperactivity disorder (ADHD) with drugs such as methylphenidate or atomoxetine has been shown to be effective. However, children with ADHD under medication may still show cognitive impairment including attention deficits. In the present study, attentional functioning in children with ADHD was assessed following an attention training program compared to visual perception training.

Participants and methods: Thirty-two children with ADHD and 16 healthy children participated in the study. Children with ADHD were randomly assigned to one of two conditions, i.e. an attention training program (n = 16) which trained aspects of vigilance, selective attention and divided attention, or a visual perception training (n = 16) which trained perceptual skills, such as perception of figure and ground, form constancy and position in space. They were assessed and trained while on ADHD medication. Statistical comparison between groups indicated that the three groups did not differ with regard to sex, age or IQ. The training programs were applied in individual sessions, twice a week, for a period of four consecutive weeks. Healthy children did not receive any training. Alertness, vigilance, selective attention, divided attention and flexibility were assessed prior to and following the interventions.

Results: Data analysis revealed that the attention training used in the present study led to statistically significant improvements of various aspects of attention, including vigilance, divided attention and flexibility when compared with performance prior to training ($p < 0.05$, Wilcoxon test), while the visual perception training had no specific effects.

Conclusion: The present findings indicate that attention training programs have the potential to improve attention functions in children with ADHD.

Keywords: ADHD, attention training, visual perception training, non-pharmacological treatment.

PS-020

The relationship between the prosodic prominence of speech and the degree of intelligibility in preadolescent asperger boys' interaction

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It has been shown that people afflicted with Asperger syndrome (AS) have difficulties to produce affective prosodic patterns (Scott 1985), and that they often have a limited range of intonation (McPartland et al. 2006). Their speech may also be overly fast, jerky or loud, or it can be characterised by large pitch excursions, quiet voice, prominent word stress and/or by creaky voice (McPartland et al. 2006; Lehtinen 2010). This paper is focussed on investigating how neurotypical persons perceive these features. More precisely, the objectives consist of discovering (1) the prosodic features that neurotypical persons find prominent when they listen to AS subjects' speech, as well as (2) the relationship between the overall prosodic prominence and the degree of intelligibility of each AS subject's speech. The study has been carried out by methods of instrumental and experimental phonetics. The data comes from naturally occurring interaction. It was recorded at the HUCH Hospital for Children and Adolescents in Helsinki. The data includes two therapy sessions with two different groups, where altogether seven (n = 7) 11–13-year-old Finnish-speaking boys talk with each other and with their therapists. The acoustic features of the boys' speech were then analysed by methods of instrumental phonetics. After this, 40 neurotypical Finnish-speaking subjects performed a 40-minute-long perception test where they assessed their impressions concerning the prominence of different prosodic features of the AS boys' speech on the basis of 14 sound samples. The mean age of the test subjects was 30.5 years. The results show that the rhythm of speech is the most prominent prosodic feature in the AS subjects' speech. Pauses, which naturally constitute an important rhythmic factor, also appear to be a highly prominent characteristic. Pitch and the level of loudness are often considered to be prominent, too. Concerning the pitch, it is noteworthy that pitch excursions—that is to say, melodic rises and falls—attract attention much more frequently than flat pitch, which is "traditionally" considered to be typical of people afflicted with AS. All seven informants have prominent prosodic features in their speech, but individual differences concerning the overall impression of prominence are big. The main finding of the study is that the overall level of prosodic prominence correlates partially with the degree of intelligibility of speech. That is, the subjects having the highest levels of overall prosodic prominence also tend to have the lowest degrees of intelligibility.

Keywords: Asperger syndrome, speech, prosody, phonetics, interaction, intelligibility.

PS-021

Adolescents with LD: socioemotional and behavioral functioning and attachment relationships with fathers, mothers, and teachers

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Study objectives: The present study aimed to examine two major objectives among adolescents with learning disorders (LD): first, to investigate the features of adolescents' socioemotional adjustment and, second, to explore the role of adolescents' global and specific attachment relationships (i.e., with parents and the homeroom teacher) in explaining differences in adjustment.

Theoretical framework: A sharp increase has been well documented during adolescence in the vulnerability and morbidity associated with various emotional, social, and behavioral problems (e.g., Forbes and Dahl, 2012). In contrast, lessresearch has investigated the pervasiveness of such difficulties among adolescents with LD, despite growing evidence that younger children with LD demonstrate not only academic dysfunction but also prevalent co-occurring socioemotional difficulties such as high levels of depression and anxiety, loneliness and more behavioral problems(Al-Yagon, 2012; Estell et al., 2008). Attachment theory is considered a highly relevant and well-validated framework for explaining individual variations in adjustment across the lifespan (Bretherton, 2010; Mikulincer and Shaver, 2007), but scarcely been examined among adolescents with LD.

Method: Participants: The sample comprised 369 adolescents in the 10th and 11th grades: 181 adolescents with formally diagnosed LD (100 girls, 81 boys) and 188 typically developing adolescents (98 girls, 90 boys). Adolescents' ages ranged from 15 to 17 years ($M = 15.90$, $SD = 0.71$).

Instruments:

1. *Attachment Security Style* (Kerns et al., 1996).
2. *Children's Appraisal of Teacher as a Secure Base* (CATSB) scale (Al-Yagon and Mikulincer, 2006).
3. *Peer-Network Loneliness and Peer-Dyadic Loneliness Scale* (Hoza et al., 2000).
4. *Affect Scale* (Moos et al., 1987).
5. *Youth Self-Report Version for Age 11–18* (YSR, Achenbach and Dumenci, 2001).

Results and discussion: On most measures, significant group differences emerged between adolescents with LD and adolescents with typical development, F (10, 358) = 2.03, $p = 0.03$, $\eta^2 = 0.06$. SEM analysis found high fit between the theoretical model and empirical findings. Thus, the current Chi square outcome was nonsignificant, c2 (10, 369) = 11.56, $p > 0.05$, and the indices-of-fit values demonstrated high fit: NFI = 0.991, CFI = 0.999, GFI = 0.994, RMSEA = 0.02. Both groups (LD, typical) showed similar paths between adolescent-mother attachment and adolescent adjustment, whereas significant group differences emerged for the contribution of adolescents' close relationships with fathers and with teachers to adolescents' adjustment.

Keywords: Learning disorders, attachment, fathers, mothers, teachers, affect, behavior problems.

PS-022

Six years follow up of children with atention deficit hyperactivity disorder treated with sustained release form of methylphenidate

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Introduction: Atentiondeficit hyperactivity disorder (ADHD) is a developmental disorder whose basic events (hyperactivity, impulsiveness and attention deficit) greatly disrupt daily functioning of these children. The recommended access regarding children with ADHD is the combination of two therapeutic modalities: medication (sympathomimetics-psychostimulants and atomoxetine) and behavioral treatment. The therapy of first choice is methylphenidate in sustained release form (MPH-SR).

Objective: Evaluation of 6 years follow up the children with ADHD trated with MPH-SR for a more comprehensive assessment of the applied therapy effects.

Subjects and Methods: We evaluated 68 children with ADHD(aged 7–15 years). The diagnosis of ADHD was based on DSM TR IV criteria and parental/teachers assessment using the SNAP IV. Patients were treated with 18–36 mg pro die MPH-SR(dose was individualized). All children currently or recently treated were includes. Laboratory and paediatric check up were conducted. Neurological check up was conducted of all patients at the time of diagnosis and the time of starting the therapy. Follow up study. Were monitored:side effects, the improvement in clinical symptoms and parental satisfaction. All results were statistically analyzed.

Results: One patient had serious adverse event expressed as a strong depressive symptoms. In all patient during entire duration of therapy was present a loss of appetite and moderate loss of body weight. Three patients presented tics and nervousness as adverse effects. Teachers have seen more improvement in the area of reducing

hyperactivity while parents, regadlless of academic success of children watched as a larger benefit.
Conclusion: Side effects of MPH-SR are generally mild. All of the children with ADHD trated with MPH-SR was a statistically significant improvement. Improving school success of children was a protector for better compliance with parent.
Keywords: MPH-SR therapy in children with ADHD; follow up study.

PS-023

Open-label atomoxetine for attention-deficit/hyperactivity disorder symptoms associated with high-functioning autism spectrum disorders

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Aims: The trial aims are to examine if atomoxetine is associated with improvement in attention, hyperactivity, and impulsivity in children with autism spectrum disorders (ASD) and to evaluate the rates and the types of adverse effects. Such children have only a 50 % response rate to methylphenidate, compared to 65–70 % response in typically developing children with ADHD, and an 18 % rate of side effects requiring discontinuation compared to <4 %, respectively. This will help to determine whether atomoxetine represents the drug of choice in this population.
Methods: This is an open label trial of atomoxetine lasting for 16 weeks. 56 children are randomised either to receive medication immediately and 25 after 8 weeks. Atomoxetine is commenced at a dose of 0.5 mg/kg every morning and gradually increased to 1.2 mg/kg/day provided adverse effects allow. Children who do not show an adequate behavioral response at 8 weeks and where adverse effects are acceptable to try a further dose of 1.4 mg/kg/day. In the control groupof 115 children to eliminate behavioral disorders used applied behavioral analysis (ABA). Behavioral improvement evaluated by Conner's rating scales (CRS) to parents and teachers as well as the Clinical Global Impressions Scale (CGI). Adverse effects monitored by questionnaires to parents, direct enquiry and examination of the child.
Results: 50 % of childrenwith ASD were responders to atomoxetine, only 1 of 16 children having side effects requiring discontinuation. Atomoxetine significantly reduced both inattention and hyperactivity-impulsivity symptoms on CRS compared with ABA group over 8 weeks (inattention subscale mean difference: -3.9, 95 % CI: -5.9 to -1.9, $p < 0.001$; hyperactivity-impulsivity subscale mean difference: -2.7, 95 % CI: -4.5 to -1.0, $p = 0.003$). Teacher- assessed cognitive/inattention problems did not differ significantly between atomoxetine and behavior therapy groups. There was no significant difference in the number of patients reporting adverse events in the two groups (70.4 % with atomoxetine vs. 65.2 % with ABA). There were no serious adverse events reported in either group. The authors suggest that atomixetine can work for children who cannot take other drugs that are commonly used to treat ADHD (stimulants).
Conclusion: This research confirms that atomoxetine is more effective for ADHD symptoms in ASD patients than ABA. Atomoxetine appears to have fewer intolerable side effects in autism than ABA and methylphenidate, making it a good choice for these patients. The most important practice consideration is individual idiosyncratic drug response: each patient is a clinical experiment of one in which various doses and possibly various drugs should be tried systematically with careful monitoring aided by caregiver reports until a satisfactory fit is found.
Keywords: Atomoxetine, autism spectrum disorders, attention, hyperactivity, impulsivity, applied behavioral analysis.

PS-024

Screening results of psychomotor development of children admitted to a training hospital

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Denver developmental screening test (DDST) is a test that can be administered to children between the ages of 1 and 6 easily and is used commonly for monitoring the development of toddlers in particular, in addition to early recognition of developmental delays. In Turkey, each year many children are admitted to hospitals. The physical problems of these children such as infection, fever and pain are treated while their psychomotor development is commonly neglected. In view of this information, it is obvious that early screening of psychomotor development especially in infants with low birth weight is important for recognizing and treating these disorders at early stage. Hence, 410 children between the ages of 4–72 months who were admitted to Konya Training and Research Hospital, Department of Pediatrics between 01.07.2010 and 31.12.2010 were included in the present study. Each child underwent tests only once. According to Denver test, of 420 cases, 344 were found to be 'normal', 12 were found to be "questionable" and 64 cases were found to be abnormal. After the evaluation of questionable and abnormal cases in child psychiatry outpatients clinic, 26 cases were referred to special education institutions with the diagnosis of 'delay in cognitive development and 2 cases with the diagnosis of common developmental disoIn Turkey, each year many children are admitted to hospitals. The physical problems of these children such as infection, fever and pain are treated while their psychomotor development is commonly neglected order. Furthermore, 48 cases were followed up with recommendations to their families. Administration of Denver developmental screening test to each child admitted to pediatrics clinics is important for early recognition of developmental delay.
Keywords: Denver developmental screening test, developmental retardation.

PS-025

Anorexia nervosa in males: case report from clinical practice

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Anorexia nervosa is an eating disorder in which the BMI below 17.5, characterized by refusal to maintain body weight at a minimally normal weight or failure to make expected weight gain (during the developmental period); a stong fear of becoming fat, disturbance in body image, and if the age is suitable, amenorrhea. AN is common in adolescents, with variable data reported about its incidence, psychopathology and outcome. It is often underdiagnosed in males because of atypical symptoms and rarity of the condition. Only 5–10 % of the diagnosed cases of anorexia nervosa occur in males. Anorexia nervosa can be difficult to identify in males. We present the two cases of male paitents who met the DSM-IV criteria for anorexia nervosa. This case study illustrates how adolescent males responded to severe family problems and untreated psychiatric problems of the mother by developing anorexia nervosa. Premorbid and family features including psychopathology reflected in high rates of parental psychiatric morbidity and marital difficulties. One paitent is admitted directly to nonspecific inpaitent clinic and the other paitent was assesed as outpaitent clinic. Both applied to clinic at the same time. Their history and personality profie resembled each other and resembles the same feautures in previous research. Both showed tendences for streneous bodily exercise to become sportively fit and to prove their bodily selfimage as a young man in the society. The study concludes that anorexia nervosa in young males can result from multiple traumatic events which occur at a particular stage of development. The precipitative factors for the disease are marital conflict of parents, psychiatric problems of the mother, and other microtarumatic life events.

Keywords: Male, anorexia nervosa, adolescents.

PS-026

Danger perception in normal adolescents and adolescents with mental disorders

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Purpose: Investigation of the peculiarities of the process of perception of dangers of different origin (estimating the danger aspect and the degree of danger) by normal adolescents and adolescents with schizotypal disorders and personality disorders.

Participants: 22 adolescents with clinical diagnosis of schizotypal disorder and personality disorder undergoing medical treatment in a clinic; 23 adolescents never attended by a doctor on mental disorders.

Method: The study has used a diagnostic complex of tests targeted at identifying the peculiarities of categorizing situations ambiguous in the aspect of danger. The complex consists of tests targeted at studying the perception of danger of different origin specially modified or constructed for the investigation.

Results: Among adolescents with mental disorders there was obtained an increase of the quantity of situations estimated as dangerous (results are $p < 0.01$—significant using Mann–Whitney criterion). Adolescents with mental disorders categorize more situations as danger ones. Their judgement about danger is more personified (they often refer to autobiographical episodes, traumatic experience) and includes additional person-specific criteria. For both groups of participants the most significant origin of danger is social interaction and communication. Adolescents never attended by a doctor on mental disorders tend to ignore potential danger of natural and anthropogenic origin.

Conclusions: The conducted study has identified the structure of perceived danger in adolescents, determined the leading perceived origins of danger, identified the differences in perception of danger between normal adolescents and adolescents with mental disorders.

Keywords: Danger, risk, danger perception, adolescence, mental disorders.

PS-027

A head-to-head, double-blind, randomized, phase 3b trial comparing the efficacy of lisdexamfetamine dimesylate with atomoxetine for the treatment of children and adolescents with attention-deficit/hyperactivity disorder

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Background: The prodrug stimulant lisdexamfetamine dimesylate (LDX) is the first long-acting amfetamine-based product available for the treatment of attention-deficit/hyperactivity disorder (ADHD) in Europe, where it is approved for use in children and adolescents who have experienced an inadequate response to methylphenidate (MPH) therapy. The efficacy and safety of LDX and the non-stimulant atomoxetine were compared in a head-to-head, phase 3b study in children and adolescents with ADHD who had responded inadequately to MPH (study SPD489-317).

Objectives: To report ADHD Rating Scale version IV (ADHD-RS-IV) outcomes for LDX and atomoxetine from study SPD489-317.

Methods: This 9-week, multi-centre, randomized, double-blind, active-controlled study enrolled patients (aged 6–17 years) with ADHD of at least moderate severity and an inadequate response to previous MPH therapy. Patients were randomized (1:1) to an optimized daily-dose of LDX (30, 50 or 70 mg) or atomoxetine (patients < 70 kg, 0.5–1.2 mg/kg with total daily dose not to exceed 1.4 mg/kg; patients ≥ 70 kg, 40, 80 or 100 mg). A secondary efficacy outcome was the change from baseline in ADHD-RS-IV total score, assessed at each weekly study visit using the last observation carried forward (LOCF) approach.

Results: Of 267 patients randomized (LDX, $n = 133$; atomoxetine, $n = 134$), 200 (74.9 %) completed the study. By visit 9, the mean ADHD-RS-IV total score (standard deviation) had decreased from baseline in both treatment arms (LDX, –26.3 [11.94]; atomoxetine, –19.4 [12.82]). The difference between LDX and atomoxetine in least squares mean change from baseline in ADHD-RS-IV total score (±95 % CI) by visit 9 was significant in favour of LDX (–6.5 [–9.3, –3.6]; $p < 0.001$; effect size 0.56). By visit 9, $\geq$25 %, $\geq$30 % or $\geq$50 % reductions in ADHD-RS-IV total score from baseline were observed in 90.5, 88.1 and 73.0 % of LDX-treated patients and 76.7, 73.7 and 50.4 % of atomoxetine-treated individuals ($p < 0.01$ for each comparison). At every previous study visit, the relative improvements in ADHD-RS-IV total score ($p < 0.001$) and proportions of patients with $\geq$ 25, $\geq$ 30 or $\geq$ 50 % reductions in ADHD-RS-IV total score ($p < 0.05$) were also statistically significant in favour of LDX.

Conclusions: In children and adolescents with at least moderately symptomatic ADHD and an inadequate response to previous MPH

therapy, LDX was associated with significantly greater reductions in core symptoms compared with atomoxetine, and significantly greater proportions of LDX-treated patients displayed a ≥ 25 %, ≥ 30 % or ≥ 50 % reduction in symptoms compared with atomoxetine-treated individuals. Supported by funding from Shire Development LLC.

Keywords: Attention-deficit/hyperactivity disorder; atomoxetine; lisdexamfetamine dimesylate.

PS-028

Weight-related safety outcomes of lisdexamfetamine dimesylate in children and adolescents with attention-deficit/hyperactivity disorder

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Background: The long-acting prodrug stimulant lisdexamfetamine dimesylate (LDX) has been shown to improve symptoms and global functioning in children and adolescents with attention-deficit/hyperactivity disorder (ADHD) compared with placebo.

Aim: To evaluate post hoc weight-related safety outcomes from a European phase 3 clinical trial of LDX.

Methods: Children (6–12 years) and adolescents (13–17 years) with ADHD were randomized (1:1:1) to once-daily LDX (30, 50 or 70 mg), placebo or osmotic-release oral system methylphenidate (OROS-MPH; 18, 36 or 54 mg; reference arm) in a double-blind, multicentre, parallel-group, dose-optimized, 7-week study. Height was measured at screening and weight was recorded at screening, baseline, each weekly on-treatment visit, and follow-up. Body mass index (BMI) was categorized into five groups based on BMI percentiles: underweight (<5 %), healthy weight (low; ≥ 5 to <25 %), healthy weight (high; ≥ 25 to <85 %), at risk of overweight (≥ 85 to <95 %) and overweight (≥ 95 %). A decrease in weight of at least 7 % from baseline to endpoint was considered to be potentially clinical important. Endpoint was the last on-treatment, post-baseline visit with a valid weight measurement.

Results: The safety population comprised 332 patients. Baseline height, weight and BMI were similar across groups. From baseline to endpoint, mean weight (standard deviation) decreased with LDX (−2.09 kg [1.945]; range, –9.2 to +2.4 kg) and OROS-MPH (−1.26 kg [1.443]; range, –4.6 to +2.5 kg), but increased with placebo (+0.74 kg [1.031]; range, –2.3 to +4.1 kg). Mean weight loss with LDX was numerically greater in adolescents than in children. Decreased weight was reported as a treatment-emergent adverse event in 20 individuals (LDX, 15; OROS-MPH, 5); all events were mild to moderate in intensity. At endpoint, most patients (LDX, 77/107; placebo, 98/108; OROS-MPH, 84/108) remained in their baseline BMI category. Of patients experiencing a BMI shift, most of those receiving active treatment moved to a lower category (LDX, 30/30; placebo, 1/10; OROS-MPH, 23/24). Seven children (LDX, 4; OROS-MPH, 3) and three adolescents (LDX, 2; OROS-MPH, 1) shifted from healthy weight (high or low) to the underweight category.

Conclusions: There was a small mean weight decrease in LDX-treated patients, consistent with the known effect of stimulants. Most patients remained in the same BMI category throughout. Future studies will examine long-term effects of LDX on growth in children and adolescents with ADHD. Supported by funding from Shire Development LLC.

Keywords: Attention-deficit/hyperactivity disorder; lisdexamfetamine dimesylate; body mass index; weight; stimulants.

PS-029

Anxiety sensitivity: changes with puberty

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Objective: Anxiety sensitivity is a concept that refers to the fear of anxiety related symptoms or bodily sensations resulting from the belief that such sensations have harmful somatic, social, or psychological consequences. Individuals with high anxiety sensitivity have a tendency to catastrophize benign anxiety sensations, such as believing that a racing heart beat is an indication of an impending heart attack. Anxiety sensitivity is a relatively stable individual difference variable which may increase the risk for anxiety-related symptoms, particularly panic attacks among individuals of all age groups. However, relationship between anxiety sensitivity and puberty level during adolescence in healthy individuals was not investigated before. We aimed to investigate the relationship of anxiety sensitivity levels with puberty level, pulse rate and blood pressure in healthy adolescents.

Method: Puberty levels (according to Tanner staging), pulse rates and blood pressures of 134 healthy adolescents (70 boys and 64 girls) were determined and these parameters were correlated with anxiety sensitivity levels of these adolescents. Additionally, the study group was divided into two separate groups according to puberty levels (early and late puberty groups) and these groups were compared according to anxiety sensitivity level, blood pressure and pulse rate.

Results: Anxiety sensitivity levels of both boys and girls were negative and weak to moderately correlated to puberty levels ($p < 0.05$). Systolic blood pressure was positively correlated to anxiety sensitivity levels in girls and diastolic blood pressure was positively correlated to anxiety sensitivity levels in boys ($p < 0.05$). Comparisons between early and late groups revealed that anxiety sensitivity levels were higher in early puberty for both boys and girls ($p < 0.05$).

Conclusion: This study supports the hypothesis that, AS levels may increase in early stages of puberty which may be related to biological and psychosocial changes in adolescence. Hence, first years of puberty are more risky stages for adolescents to develop any psychiatric disorder related to anxiety sensitivity.

Keywords: Adolescent, anxiety sensitivity, blood pressure, puberty, pulse.

PS-030

Safety outcomes from the clinical development programme for lisdexamfetamine dimesylate: a prodrug stimulant for the treatment of attention-deficit/hyperactivity disorder

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Introduction: Lisdexamfetamine dimesylate (LDX), the first long-acting prodrug stimulant, is an effective treatment for children, adolescents and adults with attention-deficit/hyperactivity disorder (ADHD). Although stimulant therapies for ADHD are generally well tolerated, they are associated with certain adverse effects in some patients [1]. Here we summarize safety outcomes from the LDX clinical programme to date.

Methods: The frequency of treatment-emergent adverse effects (TEAEs) and changes from baseline in vital signs and electrocardiogram (ECG) parameters were extracted from reports of short-term, parallel-group, phase 3 studies, as well as longer-term studies of LDX.

Results: Four, short-term (≤7 weeks) randomized, parallel-group, double-blind, placebo-controlled, phase 3 trials of LDX (30, 50 or 70 mg/day) have been conducted in patients with ADHD: NRP104.301 (children, aged 6–12 years), SPD489-325 (children and adolescents, aged 6–17 years), SPD489-305 (adolescents, aged 13–17 years) and NRP104.303 (adults, aged 18–55 years). The overall frequency of TEAEs in patients treated with LDX was similar across all studies (LDX, 69–79 %; placebo, 47–58 %). TEAEs reported in at least 10 % of patients receiving LDX in all studies were decreased appetite (LDX, 25–39 %; placebo, 2–4 %) and insomnia (LDX, 11–19 %; placebo, 0–5 %). TEAEs reported in at least 10 % of patients receiving LDX in any study were anorexia (LDX, 5–11 %; placebo, 0–2 %), decreased weight (LDX, 9–14 %; placebo, 0–1 %), dry mouth (LDX, 4–26 %; placebo, 0–3 %), headache (LDX,12–15 %; placebo, 10–20 %), irritability (LDX, 7–10 %; placebo, 0–4 %), nausea (LDX, 4–11 %; placebo, 0–3 %) and upper abdominal pain (LDX, 7–12 %; placebo, 6 %). Most TEAEs were mild to moderate in severity. Serious TEAEs were reported in 0–3 % of patients receiving LDX; none were considered to be related to LDX. Few patients (4–9 %) had TEAEs leading to discontinuation of LDX. Patients receiving LDX showed modest increases from baseline in mean blood pressure and pulse rate in all studies. LDX was generally not associated with any clinically-relevant changes in mean ECG parameters, including corrected QT interval. Safety outcomes reported for LDX in four longer-term studies (≥6 months) were generally similar to those observed in the short-term trials. TEAEs reported in at least 10 % of patients receiving LDX in all studies were decreased appetite (14–33 %), headache (17–21 %) and insomnia (12–20 %).

Conclusions: Clinical trial data indicate that the long-acting prodrug LDX has a safety and tolerability profile similar to that known for other stimulants. Supported by funding from Shire Development LLC.

Reference:

1. Graham J. et al. Eur Child Adolesc Psychiatry 2011;20:17–37.

Keywords: Attention-deficit/hyperactivity disorder; lisdexamfetamine dimesylate; safety.

PS-031

Hikikomori phenomenon and psychiatric disorders

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Hikikomori is defined as a phenomenon in which persons become recluses in their own homes, avoiding various social situations for at least 6 months. The Oxford Dictionary defines hikikomori as 'the abnormal avoidance of social contact, typically by adolescent males'. The latest nationwide surveys in Japan reported that the total number of hikikomori was about 230,000. The term hikikomori was first introduced to the public in 1998 when a book entitled "Social withdrawal (Shakaiteki hikikomori)" was published. In principle, hikikomori is considered a non-psychotic condition distinguished from social withdrawal due to negative symptoms of schizophrenia. However, recent papers published from several countries demonstrated that hikikomori could be related to various psychiatric disorders. In this presentation, we report the results of our survey to understand the perception of hikikomori amongst health care providers and review previous papers discussing the possible underlying psychiatric etiologies. A total of 1,038 subjects were requested to complete a questionnaire regarding hikikomori phenomenon. The subjects included psychiatrists, pediatricians, clinical psychologists, nurses, students and others. Items asked about agreement with 10 opinions about hikikomori, and psychiatrists and pediatricians were asked what they felt would be the most applicable psychiatric diagnosis of hikikomori.

The results demonstrate that while some differences in the perception of hikikomori do exist, all subjects tended to disagree with the statement, "hikikomori is not a disorder". Regarding the underlying psychiatric disorders of hikikomori, approximately 30 % of psychiatrists chose schizophrenia as the most applicable psychiatric diagnosis for hikikomori, whereas 50 % of pediatricians chose neurotic or stress-related disorders. Other groups in Japan also report that most hikikomori subjects have comorbid psychiatric disorders such as social anxiety disorder, mood disorders, and pervasive developmental disorders. The results of our study report that there is an argument regarding the relationship between hikikomori and psychiatric disorders. Taken together, we propose that the term hikikomori could be used to describe severe social withdrawal in the setting of a number of psychiatric disorders.

Keywords: Hikikomori, social withdrawal, anxiety disorder, pervasive developmental disorders.

PS-032

Dose dependent Raynaud's phenomenon developing due to use of atomoxetine in a girl: a case report

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Attention deficit hyperactivity disorder (ADHD) is a very common disorder that occurs at the rate of 5–10 %, in childhood and 4 % in adulthood. Psychostimulants are commonly used in the treatment of ADHD and of these, methylphenidate is the most frequently preferred one. In addition to this, FDA approved Atomoxetine, which is a selective non-adrenergic reuptake inhibitor, for use in the treatment of ADHD in 2002. Side effects reported in association with the use of atomoxetine include stomach ache, vomiting, headache, constipation, nausea, decrease in appetite, depressive mood, irritability, cardiac murmur, prolongation of QT interval, hypertension, tachycardia and Wolf Parkinson White syndrome. Although no case of RP due to atomoxetine has been reported in the literature so far, RP cases associated with the use of citalopram, methylphenidate, dextroamphetamine, yohimbine and vincristine have been reported. Raynaud's phenomenon (RP) is defined as paroxysmal vasospasm in fingers in the case of cold or emotional stress. Patients complain of pain associated with sudden pallor and/or cyanosis in distal 2/3 of their fingers. This condition is usually idiopathic and females account for 60–90 % of the cases. RP emerging in association with Scleroderma, CREST (calcinosis, Raynaud's Phenomenon, esophagus dismotility, sclerodactyly, telangiectasia), vaso-occlusive diseases, vibrating tools or drug use is secondary Raynaud's Phenomenon. In the literature, RP cases occurring due to drugs such as, citalopram, methylphenidate, dextroamphetamine, yohimbine and vincristine have been reported. In the present report, a case of RP thought to arise in a dose dependent manner in a patient administered atomoxetine treatment with the diagnosis of ADHD is presented. As far as we know, this is the first case of RP in the literature reported to occur due to atomoxetine use. Of note, an important question remain to be answered is the incidence of atomoxetine causing rheumatologic side effects such as RP in children. To answer this question, further controlled studies with a larger patient population are needed.

Keywords: Attention deficit hyperactivity disorder, ADHD, atomoxetine, phenomenon.

PS-033

Psychiatric disorders and symptoms in children and adolescents with sleep bruxism

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Objective: Sleep Bruxism in children has become an increasing concern in recent years due to its negative impact on the life quality. Sleep Bruxismis described as joint movements like gritting, clenching and grinding teeth as a result of involuntary contraction and hyperactivity of the temporomandibular joint muscles during sleep for a long time. The relationship between Sleep Bruxism and psychiatric symptoms in children and adolescents was less investigated before. Within this study, we investigated anxiety and depression symptom severities, psychiatric disorders and anxiety sensitivity levels in children with Sleep Bruxism and compared these parameters with healthy controls.

Method: Thirty-five cases aged between 7 ands 18 years, who had been admitted with the diagnosis of Sleep Bruxism and 35 healthy controls were included in the study. All participants were evaluated for psychiatric disorders using a structured clinical interview and anxiety and depression symptoms scales and Sleep Bruxism diagnosis was made using Sleep Bruxism criteria in the InternationalClassification of Sleep Disorders. The Mann–Whitney U test, Fisher's analysis and multivariate logistic regression was applied for statistical analyses.

Results: At least one psychiatric disorder was detected in 15 (42.9 %) cases diagnosed with Sleep Bruxismand in 6 (17.1 %) cases in the control group. A significant difference was found between the two groups when all anxiety disorders were gathered under one heading that, anxiety disorders were more frequent in Sleep Bruxism group ($p < 0.05$). There were no significant differences in terms of other psychiatric disorders. Significant differences were found between two groups in terms of anxiety and depression symptoms severity and anxiety sensitivity levels ($p < 0.05$).

Conclusion: As a result, anxiety sensitivity, state-trait anxiety and depression symptoms being higher in the Sleep Bruxism group makes psychiatric assessment of this group a necessity.

Keywords: Sleep bruxism, child and adolescent, psychopathology, anxiety sensitivity, depression, anxiety.

PS-034

Manic attack as a symptom of fluoxetine discontinuation syndrome in a child.

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The discontinuation syndrome is a withdrawal type of reaction that an individual taking an SSRI over a period of time experiences whenever there is an abrupt cessation of the medication. The term discontinuation rather than withdrawal syndrome is favored to avoid any misconception about drug dependence or addiction. All SSRIs have been implicated including fluoxetine, sertraline, paroxetine, fluvoxamine, citalopram and lately escitalopram, although the respective reactions may not be of equal severity. This adverse effect has also been described with other types of antidepressants including tricyclics (TCAs) and serotonin/norepinephrine reuptake Inhibitors (SNRIs). During the discontinuation of antidpressants, discontinuation syndrome characterised by anxiety and somatic symptoms occurs frequently. However, in the literature, there are case reports reporting mania of psychotic charasteristics, hypomania, psychosis, delirium and mood elevation in addition to classical symptoms of discontinuation syndrome. In children and adolescents with major depression, the use of selective serotonin reuptake inhibitor (SSRI) progressively increases. The only adntidepressant drug approved by FDA (Food and Drug Administration) for use in children and adolesents is fluoxetine. Adolesents who have manic episode during fluoxetine use have been reported in previous case reports. Yet, as far as we know, there is no report of a child who have manic episode in association with the disontinuation of fluoxetine. Here, we want to report the case of a child who experienced manic attack with the discontinuation of fluxetine.

Keywords: SSRI, fluoxetine, discontinuation syndrome, manic attack.

PS-035

Bullying and self-cutting among Japanese adolescents

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Objective: Bullying and self-cutting among adolescents are major concerns in Japan. There is a lack of population-based studies examining associations between self-cutting and bullying behavior. This study examined the association between engagement in self-cutting and bullying behavior. The relationship between self-cutting and school support was also examined. Method: Participants were 1,632 junior high school students (845 girls and 787 boys; approximately 75 % of the target population) from Tokushima Prefecture. They completed a questionnaire about experiences of self-cutting, questions on bullying and being victim of bullying in school, outside school, and on the Internet in the past 6 months, and questions on support from school (feel secure in school; the teachers care about you; teachers try to stop bullying; and students try to stop bullying). Those who were victims of bullying and also bullies were coded as victim-bully; victims of bullying who have not bullied anyone were coded as victims; bullies who have not been victims of bullying were coded as bullies. These are additionally coded as per the context of the bullying; in school, outside school, and on the Internet.

Results: About 11.3 % of the girls and 5.5 % of the boys have engaged in self-cutting. Logistic regression analyses were performed separately for both groups. For the girls, being victims in school ($OR = 2.11$, 95 % CI: 1.03–4.32, $p < 0.05$), victim-bullies in school ($OR = 4.58$, 95 % CI: 1.69–12.97, $p < 0.01$), and victim-bullies outside school ($OR = 5.43$, 95 % CI: 1.74–16.97, $p < 0.01$) were associated positively with self-cutting, whereas feeling secure in school ($OR = 0.62$, 95 % CI: 0.45–0.84, $p < 0.01$) was associated negatively with self-cutting. For the boys, being bullies in school ($OR = 2.79$, 95 % CI: 1.01–7.08, $p < 0.05$), bullies outside school ($OR = 3.49$, 95 % CI: 1.42–8.54, $p < 0.01$), victim-bullies outside school ($OR = 5.42$, 95 % CI: 1.85–15.86, $p < 0.01$) and victim-bullies on the Internet ($OR = 17.00$, 95 % CI: 3.31–87.11, $p < 0.01$) were associated positively with self-cutting.

Conclusion: Being victims of bullying is a risk factor while feeling secure in school is a protective factor of self-cutting for girls. Thus, providing support in school could improve girls' mental health. For boys, being bullies is a risk factor of self-cutting, implying that being bullies is the result of mental disturbance. Hence, different clinical approaches for self-cutting are needed for girls and boys.

Keywords: Self-cutting, bullying.

PS-036

The prevalence of mood and anxiety disorders in primary school children population in Turkey

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Objective: Childhood psychiatric disorders can prevent a young person from reaching his or her full potential, and disrupt normal development. Empirical data on the prevalence and incidence of childhood psychiatric disorders are fundamental to understanding the etiology and natural history of such disorders. There have been fewer epidemiologic investigations aimed at estimating prevalence and incidence and associated risk factors for children and adolescents. This study was designed to assess the prevalence of mood disorders and anxiety disorders in a representative sample of primary school children from Turkey where no previous rates were available.

Method: This study has been performed in the central district of Izmir, which is the third biggest city of Turkey. Twelve schools were randomly selected and stratified according to socioeconomic status by IzmirDirectorate of National Education. The sample consisted of randomly selected 419 primary school children with 5 % margin of error and alpha (t) 1 %. Our study includes children from a broad range of 6–14 years.417 cases were interviewed for a total response rate of 99.5 % 0.417 cases were assessed using the K-SADS-PL(Schedule for Affective Disorders and Schizophrenia for School Age Children-Present and Lifetime Version) and levels of functionality with the impairment criterion scale.

Results: The results showed that the prevalence of mood disorders 2.9 %, anxiety disorders 13.9 % without considering impairment, and the prevalence of mood disorders 1.4 %, anxiety disorders 2.6 % with considering impairment. Mood and anxiety disorders were not found to be associated with age, gender, school grade, parental education, parental marital status, and socioeconomic status.

Conclusion: The prevalence of mood and anxiety disorders in Turkey are similar to those in Western studies. With the inclusion of diagnosis-specific impairment criteria, the rates reduced slightly consistent with the literature. When the impairment criteria were imposed, the rates of mood disorders were reduced approximately in half and rates of anxiety disorders were reduced in a quarter.

Keywords: Prevalence, mood disorders, anxiety disorders.

PS-037

Relationship between environmental factors and schizophrenia.

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Introduction: Different environmental factors have been associated with the risk of developing schizophrenia, age of manifestation, the severity of defect states.

Aims: To study the impact environmental risk factors on the schizophrenia spectrum disorders (F 20–F 29), in particular prenatal infections in mothers during pregnancy, familyphysical and sexual abuse in the preschool and early school years, use ofcannabis, stimulants and alcohol in adolescence.

Method: Included were 93 subjects (48 males and 45 females, mean age = 29.7) with schizophrenia spectrum disorders (F20–F 29). Among them, the first group involved patients ($N = 35$) with cases of prenatal infections in mothers during pregnancy, the second were ($N = 31$) patients with psychological trauma in early childhood and the third were patients ($N = 27$), who consumed alcohol and drugs before the manifestation of the disease. The control group account for 84 healthy individuals with availability of all the above factors. Archival medical documentation, the results of semi-structured interviews with parents of randomized patients, developed by the authorsof this studywere investigated.

Results: Transferred infection by the mother during pregnancy is the risk factor on the early age of the first symptoms appearance. They are herpes simplex I, II, influenza, rubella and others. We found no difference between the using antiviral and antibacterial treatment and its absence. Patients with schizophrenia often observed higher levels of psychological trauma in childhood, compared with healthy. Patients who were subjected to psychological injury at an earlier age have earlier manifestation of the disease. Also among the crisis relationships in the family more unfavorable is cruelty to child. Factors influencing the severity of the clinical presentation (hallucinatory, delusional and negative symptoms and their dynamics during the first 5 years of disease, the severity of social social maladjustment) were availability antisocial parents and incomplete families. Revealed an interaction between early trauma and cannabis and alcohol use during adolescence, especially under 16. In individuals who consumed alcohol and drugs positive symptoms were more severe and had a longer course.

Conclusions: Apparently, the environmental factors that operate during pregnancy increases the risk of manifestation of schizophreniaat an early age, factors that act in early childhood increase the frequency and severity of relapses and social exclusion of patients, drug use affects on presentation of clinical symptoms of schizophrenia. Although our study did not establish a cause-effect relationship between prenatal infections in mothers during pregnancy, psychological trauma in childhood, drug use and alcohol in adolescence and schizophrenia spectrum disorders, it contribute to support the theory that environmental factors can increase the risk of psychosis in adolescence.

Keywords: Schizophrenia, environmental factors.

PS-038

Intervention for adolescents with recurrent self harm and borderline personality traits in linn dara CAMHS-A survey to explore staff experiences

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Many young people attending mental health services present with recurrent self harm and emerging borderline personality features. This can manifest as chronic suicidal ideation, self harm, severe mood difficulties, impulsive aggression, substance misuse, eating disorders and a general feeling of "life as a crisis". The recently published 4th Annual Report of Child and Adolescent Mental Health Services recorded 904 children aged 10–17 years treated for deliberate self harm episodes in 2011 and deduced that 16 % (172) of these presentations were repeat acts. This client group is often considered challenging to treat due to the complexity and intensity of the clients problems and consequently it can be stressful and emotionally demanding for the staff who work with them.

Given the recent proposal that Child and Adolescent Mental Health Services expand to include the 16–18 year old age group by 2014, further training for this presentation is indicated. The 4th Annual Report states that deliberate self harm (DSH) "increases with age" and "DSH/Suicidal Ideation was recorded as a reason for referral in 28 % of the new cases seen". Adolescents aged 16/17 years constituted 16.5 % of the caseload in 2011. Clondalkin Child and Adolescent Mental Health Services (CAMHS) conducted a research project which explored current interventions offered to this cohort and what future training needs are indicated. We also investigated the impact working with this client group has on staff. The research project involved a brief questionnaire featuring both qualitative and quantitative items. The survey was emailed to all CAMHS teams in the *Linn Dara* service. A response rate of 46 % was achieved. Results were analyzed using *SPSS version 17*. The results highlighted a demand for specialized training such as Dialectical Behavioral Therapy or Cognitive Analytical Therapy to support staff working with these clients (64 %). The majority of staff (48 %) felt that the service provided was neither appropriate nor effective. High stress levels were a common feature among respondents in managing these cases compared to other client groups. The majority of the respondents (27 %) were from psychiatry and psychology (18 %) backgrounds, perhaps indicative of the key workers most likely to work with this patient group. A limitation with the survey was that it was distributed at the time of NCHD changeover therefore responses from new junior medical staff were not as detailed given these staff had just started work with this client group. Given that psychiatry tend to see a large percentage of these cases, the response rate and breadth of opinion could have been greater if conducted later in the 6 month rotation. In conclusion CAMHS staff would welcome specialized training for this client group. Staff experience significant stress when working with this patient group.

Keywords: Intervention, adolescents, recurrent self harm, borderline personality traits, staff

PS-039

Screening for psychopathology and quality of life in children with epilepsy and psychopathology in their parents

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Objective: It is known that epileptic children have more psychiatric diseases than normal population and children with other chronic diseases. Challenges in the treatment process negatively affects health-related quality of life in children with epilepsy and increases the likelihood of psychosocial problems in children and their parents. In the present study, it was aimed to identify psychopathology, quality of life perception, psychopathology in their parents and relationship among these.

Material and method: Thirty six children with epilepsy (1–6 years-old) who have been receiving anti-epileptic therapy at least for 1 year and their parents were included to this study. Ankara Development Screening Inventory (ADSI) was performed in all patients; those with abnormal development were excluded. Control group was comprised from 36 age- and sex-matched children without any psychiatric or chronic diseases, and their parents. Parents in this study were asked to complete Brief Infant Toddler Social Emotional Assessment (BITSEA) for children at 1–3 years of age, Early Childhood Inventory-Parent Scale (ECI-4) for children at 4–6 years of age, Quality of Life Scale for children for all cases and Symptoms Checklist-90 (SCL-90) for screening psychopathology in parents.

Findings: There was no significant difference between epileptic group and control group regarding duration of breastfeeding, number of siblings and age distribution of parents. Education time of both parents was found to be shorter in epileptic group. It was found that parents (both mother and father) had more physical disorder and mother had less employment. In the ADSI assessment, a retardation was detected in language domain in epileptic group. BITSEA scores were found to be similar to those in control group. In the ECI-4-

Parent Scale assessment, it was found that, when compared to controls, crude and fine motor development was delayed; and all 3 subtypes of attention deficiency-hyperactivity disorder, dysthymic disorders, diffuse anxiety disorder, posttraumatic stress disorder and elimination disorders were found to be in higher rates. In the mothers of epileptic children, scores of SCL-90-Total, SCL-90 Positive Symptom Distress Index, SCL-90 Positive Symptom Total, somatization, depression, anxiety, anger-hostility, phobic anxiety and additional scale were found to be significantly higher than those in controls, while only psychotism score was higher in fathers of epileptic children.
Conclusion: In the present study, no psychopathology was detected in the children with epilepsy at 1–3 years of age, while frequency of psychopathology was increased in those at 4–6 years of age. It was found that frequency of mental symptoms were increased in mothers of children with epilepsy, while no psychopathology was detected in fathers of these children; and, in these children, no impairment was detected in the quality of life.
Keywords: Epilepsy, child, psychopathology, quality of Life, parent psychopathology.

PS-040

Executive functions profile in children and adolescents with or without ADHD: by using performance- based measures and homework and work habits (HWH) questionnaire

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Objective: The first purpose of this study was to compare executive functions in children and adolescents with and without attention deficit/hyperactivity disorder (ADHD) using performance-based measures. The second aim was todemonstrate how daily functions of the children and adolescents with ADHD are impaired using the developed questionnaire about homework and work habits (HWH). The final aim was to investigate the relationship between HWH ratings and performance-based measures of executive functions.
Method: A group of children between the age of 7–17 who met the DSM-IV criteria for the first time for ADHD (n = 60) as the patient group and 7–17 age children and adolescents (n = 60) as the healty control group were included in this study sample. Parents and teachers of the participations were asked to fill up a form of HWH ratings to evaluate performance based executive functions. Participants completed the Wisconsin Card Sorting, Stroop Color and Word and Trail Making (B) tasks. In addition, HWH questionnaire was given to the children and adolescence and their intelligence level was evaluated with Wechsler Intelligence Scale for Children-Revised.
Results: ADHD group participants displayed lower performance in all of the performance-based executive functions measures and lower HWH scores compared to the controls.
Conclusion: The low scores in HWH questionnaire were found to be significantly related with performance based executive function tests.
Keywords: Attention deficit hyperactivity disorder, executive functions, homework and work habits, cildren, adolescence.

PS-041

Emotion recognition in parents of children with Autism spectrum disorders

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Background: Deficits in emotion recognition skills are linked to individuals with autism spectrum disorders (ASDs). There is, however, a lack of research examining the emotion recognition skills in first degree relatives of individuals with ASDs.
Methods: We examined upper facial emotion recognition in 69 parents of children with ASDs (M age = 41.1 years) and 85 community parents (M age = 41.8 years) employing computer-based The Frankfurt Test and training of facial affect recognition (FEFA).
Results: Fathers and mothers of children with ASDs scored statistically significantly lower than their community control counterparts on the FEFA Total score and on FEFA Positive (Happiness, Surprise) emotion scores. There were no significant difference between ASDs and control groups on FEFA Negative (Sad, Fear, Anger, Disgust) or FEFA Neutral expression emotions score. However, ASD parents interpreted Neutral expression more often than control fathers as a negative than positive emotion in their incorrect answers (71.3 vs. 61.5 %, $p = 0.053$). Fathers of children with ASDs scored significantly lower than mothers of children with ASDs on the FEFA total and on FEFA Positive and Negative emotion scores. In addition, the gender difference was not so clear in community parents, where as community mothers scored higher than community fathers only on FEFA negative emotions score.
Conclusions: Results suggest that parents, especially fathers of children with ASDs, may share deficits in emotion recognition skills characterizing ASDs. Parents of children with ASDs may demonstrate biases toward processing negative information when compared to community parents.
Keywords: Adult, asperger syndrome, eye region, fear, interpretation.

PS-042

Psychometric properties of the short OCD screener in a clinical sample of children and adolescents

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Obsessive–compulsive disorder (OCD) in children and adolescents is an underestimated and undertreated disorder. There is a considerable number of tools for assessment of obsessive–compulsive disorder and symptoms in children and adolescents but the number of items is above 20 in all of them (in example, the Obsessive Compulsive Inventory Childre version –OCI-CV, the Children's Florida Obsessive Compulsive Inventory—C-FOCI, etc.). In order to have a new simple screening tool for clinical practice and research, Uher, Heyman, Mortimore, Frampton and Goodman (2007) developed a 7-item self-report named "Short OCD Screener" (SOCS). This instrument showed good internal consistency, a unidimensional factor structure and excellent sensitivity to detect cases with this disorder in children.

The aim of this study was to provide the psychometric properties and factor structure of SOCS in a clinical sample of Spanish children and adolescents. The sample consisted of 43 children and adolescents from Spain. The mean age was 15.4 years (SD = 2.54). The gender distribution was homogeneous. We used the translation and back-translation method. We applied the SOCS, a sociodemographic questionnaire, the OCI-CV (Child Version of the Obsessive Compulsive Inventory)the C-FOCI (Children Florida Obsessive–Compulsive Inventory) and the RCADS (Revised Child Anxiety and Depression Scales). The internal consistency of the scores was 0.61. We found no significant differences by gender and age. In addition, the scale showed an appropriate convergent validity with other measures. In short, the SOCS seems to be a valid and useful instrument for the assessment of obsessive–compulsive disorder children and adolescents.

Keywords: Obsessive–compulsive disorder, adolescents, children.

PS-043

Sleep duration among children 8 months after the 2011 Japan Earthquake and Tsunami

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Background: On March 11th, 2011, Japan experienced a huge earthquake and tsunami. The tsunami caused tremendous damage and victimized a number of children. To elucidate relationships between traumatic symptoms and sleep duration among children who survived the 2011 Japan earthquake and tsunami.

Methods: The subjects comprised 12.524 children in kindergartens, elementary schools, and junior high schools in Ishinomaki City, Miyagi Prefecture, Japan. The Post Traumatic Stress Symptoms for Children 15 items (PTSSC-15), a self-completion questionnaire on traumatic symptoms, and a sleep questionnaire were distributed to them. A questionnaire regarding disaster damage conditions of the children's homes was distributed to their teachers. Of 12.524, an effective response was obtained from 11.692 (93.3 %). A paper-based survey was conducted, asking questions regarding traumatic symptoms and sleep duration using a self-report form. The self-report form consisted of the PTSSC-15 and a sleep questionnaire developed by the authors. The teacher-report form consisted of a disaster situation questionnaire for each student, developed by the authors. Statistical analysis: The average sleep duration on weekdays and holidays in children was calculated for each grade and gender. Correlation coefficient was calculated to examine whether the average sleep duration on weekdays and holidays with a PTSSC-15 score. The sleep duration on weekdays and holidays of children were statistically compared with the disaster damage conditions by two-factor analysis of variance. In all tests, a significance level of 0.05 was used in two-sided tests. Analyses were performed using PASW 18.0.

Results: The correlation coefficients between the average sleep duration on weekdays and holidays with a PTSSC-15 score were significant($p < 0.001$). Children with house damage, evacuation experience, and bereavement experience slept for a significantly shorter time than children without.

Conclusion: This study elucidated relationships between trauma symptoms and sleep duration in children who survived the 2011 Japanese earthquake and tsunami. It is important not only to evaluate the traumatic symptoms with a self-completion questionnaire but also to confirm sleep duration after the disaster.

Keywords: Tsunami, trauma, sleep.

PS-044

Effects of atomoxetine in attention-deficit/hyperactivity disorder as measured by near-infrared spectroscopy: a preliminary study

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Neurobiological studies report that prefrontal dysfunction are involved in the pathophysiology of attention-deficit/hyperactivity disorder. Near-infrared spectroscopy is a noninvasive optical tool for studying oxygenation and hemodynamic changes in the cerebral cortex by measuring changes in oxygenated hemoglobin. The aim of the present preliminary study was to evaluate the feasibility of measuring cerebral hemodynamic effects of a clinical dose of atomoxetine by near-infrared spectroscopy in 5 children (3 boys and 2 girls; mean age, 9.0 years) with attention-deficit/hyperactivity disorder. Ethical approval for the present study was obtained through the Nara Medical University. Written informed consent was obtained from all subjects and/or their parents before the study. The relative concentrations of oxyhemoglobin (oxy-Hb) were measured with frontal probes every 0.1 s during the Stroop color-word task, using 24-channel near-infrared spectroscopy machines, in the drug-naïve condition and after intake of atomoxetine. At the each condition, we used the ADHD RS-IV-J (Home Version) to evaluate ADHD symptoms of subjects. The total score of ADHD RS-IV-J showed a decreasing trend, from 31.8 before treatment to 26.6 after treatment ($P = 0.053$). During the Stroop color-word task, the oxy-Hb changes in the condition after intake of atomoxetine were significantly larger than that in the drug-naïve condition at the channel 8 and 21 located at prefrontal cortex. The larger oxy-Hb changes in the condition after treatment might indicate an intensified prefrontal hemodynamic response induced by atomoxetine. Near-infrared spectroscopy is a sensitive tool for measuring pharmacological effects of atomoxetine in children with attention-deficit/hyperactivity disorder.

Keywords: ADHD, near-infrared spectroscopy, atomoxetine, functional neuroimaging study, prefrontal hemodynamic response.

PS-045

Hyperprolactinemia and antipsychotic treatment in paediatric populations. Results from 1 year follow-up of sentia pharmacovigilance spanish registry

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SENTIA is an online registry (https://sentia.es), whose aim is long-term pharmacovigilance for the safety evaluation of antipsychotics in children and adolescents.

Objectives: The aim of this presentation is to analyze the outcome of prolactin levels in children undergoing antipsychotic treatment.

Methods: Children and adolescents are monitored regularly. Regarding the different analytical parameters we specifically evaluated prolactin. Hyperprolactinemia was defined as prolactin levels higher than 17.7 ng/ml in males and 29.2 ng/ml in females. The naïve patients are monitorized before starting treatment, and after 1, 3 and then on a 6- monthly basis if treatment is maintained at the same dose and co-medication and no adverse effects are found. Patients included in the program who are currently on treatment for more than 1 month are monitorized on a 6-monthly basis. Regular monitorization at 1, 3 and 6 months are also carried out when there is a change in antipsychotic treatment.

Results: 56 patients have been included (40 male and 16 female). The average age of the included patients is 12 years (3–17). The mean duration of antipsychotic treatment of 13 months (2 months to 5 years). A medical history of interest was evident in 12 (21 %) children, 5 % had an endocrine disease. With regard to the family medical history (parents, brothers and sisters and grandparents) 4 % had endocrine disease. Twenty patients (35.7 %) had hyperprolactinemia associated with antipsychotic drugs. Of these patients 11 (55 %) have high prolactin levels at baseline (patients previously treated with antipsychotics), 11 % at the one month follow-up visit, 7 % at the 3 month follow-up visit, 25 % after 6 month, 4 % after 9 month and 14 % after the first year of monitoring. The antipsychotic drugs involved in of cases of hyperprolactinemia were risperidone (69.7 %), aripiprazole (19.7 %), pimozide (6.1 %) and olanzapine (4.5 %), with mean doses per day of 1 mg for risperidone, 5 mg for aripiprazole, 1.5 mg for apimozide and 10 mg for olanzapine. Antipsychotic treatment was discontinued in only 2 of the 20 patients due to increased prolactin and the advent of symptoms related to hyperprolactinemia. In most patients prolactin levels were normalized despite the continuation of antipsychotic treatment.

Conclusions: The proportion of patients with an increase in prolactin levels (35.7 %) in SENTIA is lower than that found in other studies. Low doses used with the most frequently prescribed antipsychotic (risperidone) could explain this. Most hyperprolactinemia was asymptomatic, although breast and menstrual problems were detected in some patients. This was the reason for discontinuation as the family chose a change in treatment after being informed of the hyperprolactinemia and its relationship with those symptoms. The normalization of prolactine levels with the continuation of treatment, which was found in most patients, is coincident with other author findings.

Keywords: Hyperprolactinemia, antipsychotic treatment, safety evaluation, children and adolescents

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PS-046

SENTIA: an intensive medicines monitoring programme for proactive safety surveillance of neuroleptic treatment in children and adolescents

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Antipsychotic prescription to children and adolescents has risen dramatically over the past decade. There are few studies regarding safety in this population in the long term. Only 24 of the reviewed studies lasted longer than 6 months.

Objectives: SENTIA (https://sentia.es) is a computer-based platform for a Spanish Pharmacovigilance Registry of Antipsychotic Adverse Effects in children and adolescents. SENTIA is financed by public funds. The principal objective of this clinical program is to guarantee a safe use of antipsychotics in children and adolescents through early prevention and detection of adverse events and pharmacological interactions of antipsychotic treatment in paediatric populations.

Methods: Children and adolescents, regardless of the diagnosis or clinical symptoms that motivate the antipsychotics prescription are monitored regularly. The gathered information is structured as follows: (1) Sociodemographic data; (2) Medical and psychiatric history; (3) Clinical assessment: CBCL;MiniKID;CGAS;CGI; (4) Pharmacological history; (5) Therapeutic compliance; (6) Health habits; (7) Side effects (AIMS, SAS, SMURF); (8) Physical examination, (9) Biological parameters.

Results: In the first year of follow-up 56 patients have been included (40 male/16 female). The average age of the patients is 12 years (3–17) 0.39 % of the patients were naive of antipsychotic treatment prior to the inclusion in the program and 61 % were had experienced treatment, with a mean duration of antipsychotic treatment of 13 months. The most frequently prescribed antipsychotics were risperidone (55.1 %) and aripiprazole (28.7 %). The most common reasons for prescription were aggressiveness, mental disablement and autism spectrum disorder.68 % of the children enrolled had more than one diagnosis. Of the total patients, 63.6 % received other concomitant treatments. In relation to safety assessments using the SMURF scale, 71 % of the patients had some adverse event related to treatment. During the follow-up 122 adverse events related to the drugs were collected. The most frequently adverse events reported were: problems related to appetite/weight (48 % of the total patients), headache (18 %) and salivary hypersecretion/drooling (18 %). Of the 71 prescribed antipsychotics, 35 % were withdrawn during follow-up, 32 % motivated for adverse events (weight gain, hyperprolactinemia, dyskinesia, psychomotor restlessness and drowsiness).

Conclusions: SENTIA is a useful tool for the systematic monitorization of adverse effects of antipsychotics in children and adolescents. The online support of this database facilitates the multicenter participation and the inclusion of a high number of patients, whose data can be jointly and anonymously analyzed, thus permitting future longitudinal prospective and retrospective analyses. The findings after 1 year of follow-up confirm the need of a close monitorization program to ensure safety in antipsychotic treatment in paediatric populations.

Keywords: Antipsychotic, adverse effects, pharmacovigilance registry, paediatric populations

PS-047
Comparing the clinical charateristics of children with ADHD vs. ADHD with comorbid bipolar disorder

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Background: A leading source of diagnostic confusion in childhood bipolar disorder is the symptomatic overlap with ADHD. Systematic studies of children and adolescents show that rates of ADHD range from 60 to 90 % in paediatric patients with bipolar disorder The increased rates of ADHD in early onset Bipolar patients and higher rates of ADHD in offspring of Bipolar disorder patients, has led to the concept of ADHD features as a pro-dromal manifestation of Paediatric Bipolar disorder (PBD). If we were to categorize and compare the disorder as two distinct types: (1) ADHD prodrome of PBD and (2) ADHD only, this could facilitate early recognition of the PBD.
Aim: To undertake a case series examination of the clinical characteristics of ADHD children with and without co-morbid PBD.
Method: The subjects were selected from a large genetic study of ADHD. Nine children with ADHD and co-morbid PBD were compared with 683 children with ADHD to investigate any differences in clinical characteristics, co-morbidities and family history.
Results: Children with co-morbid ADHD and PBD had significantly higher severity of inattention and oppositional defiant disorder symptoms. There were no obviously distinguishing features of the children with PBD although 11 % had a family history of bipolar disorder. Statistical testing showed that a significantly higher incidence of Bipolar disorder was found amongst the first and second degree relatives of children in the ADHD and PBD group when compared to children in the ADHD only group.
Conclusions: Children with co-morbid ADHD and PBD have more severe inattention and oppositional symptoms but do not appear to have distinctive features that distinguished a subtype of ADHD. It is also reported that they have a stronger family history of Bipolar disorder. Large scale longitudinal studies are needed to further investigate this overlap.

Keywords: ADHD, paediatric bipolar disorder.

PS-048
Characteristics of Somatoform disorders in Japan

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Objectives: Somatoform disorders are characterized by the presence of physical symptoms that suggest a general medical condition. The symptoms areunexplained physical symptoms butare not intentional as against factitious disorders and malingering. In Japan unexplained somatic symptoms are often a major reason for children's absence from schools and calls to pediatricians. The prevalence of somatic symptoms among children is high. However, there is paucity of data on clinical profileof somatoform disorders. The present work was undertaken to study the clinical profile. The Child Behavior Checklist (CBCL) has been used as a screening tool for psychiatric illness for children. This study aims to characterize patients with somatoform disorders using CBCL compared with other clinical subjects and to explore potential usefulness of CBCL as a screening tool for somatoform disorders.
Methods: Participants were children who were consecutively referred to the child psychiatric outpatient department in Nippon Medical School Hospital, Tokyo, Japan. At the intake, their parents completed the CBCL. A detailed history and physical examination was carried out. Appropriate investigations were undertaken to exclude organic causes. Diagnosis was made according to DSM-IV-TR criteria. SPSS version 13 was used for all statistical analyses.
Results: During the study periods, 92 parents completed CBCL. 23 patients met one of diagnostic criteria for somatoform disorders. Patients with somatoform disorders scored significantly higher in the somatic complains ($p = 0.001$) and lower in the thought problems ($p = 0.04$) and attention problems ($p = 0.03$). However, there are no statistically significant differences in the total CBCL score, CBCL internalizing and externalizing subscale between patients with somatoform disorders and patients without somatoform disorders. Pearson correlation results were obtained and in the patients with somatoform disorders CBCL internalizing subscale score is associated with the somatic complains ($p < 0.05$). Conclusions: This study indicates that CBCL can assist in assessment of somatoform disorders in child outpatient clinic setting.

Keywords: Somatoform disorders CBCL Japan.

PS-049
Long-term academic outcomes of attention-deficit hyperactivity disorder and effects of treatment

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Background: ADHD is recognized as a serious medical conditionof brain dysfunctionwith long-term sequelae. Although commonly diagnosed in childhood, ADHD may persist into adolescence and adulthood and adversely affect functional outcomes. Academic difficulties are often the reason for a child's initial referral for clinical evaluation and can be a key contributor to future functional outcomes.
Objective: Quantify how ADHD affects long-term academic outcomes (both learning information/skills and success within the school environment) and determine if treatment provides benefit.
Method: A systematic literature review identified 145 studies with a variety of experimental designs addressing the effects of ADHD on long-term (≥ 2 years) academic outcomes. Academic outcomes were differentiated as either indicators of academic achievement (information and skills learned, measured primarily through standardized achievement scores) or academic performance (success within the school construct such as grades, years of schooling, grade retention, high school graduation, college enrollment). Outcomes were classified as more favourable in one group vs. the other, based on statistical significance reported in each study.
Results: In studies comparing untreated individuals with ADHD with non-ADHD controls, 83 % of academic achievement outcomes and

76 % of academic performance outcomes were poorer with untreated ADHD. Studies showed both types of outcomes improved with treatment, proportionally more so for achievement outcomes (83 %) than performance outcomes (42 %). Multimodal treatment was associated with improvement for a higher proportion of outcomes than pharmacological or non-pharmacological treatment alone. Exclusion of low IQ or controlling for IQ did not substantially alter the proportion of outcomes that was poorer with untreated ADHD compared with non-ADHD controls, but did increase the proportion of studies demonstrating improvement associated with treatment. Grade retention policy can vary by country, but no differences were found among world regions in the proportion of poorer grade retention outcomes for individuals with ADHD. Furthermore, the proportion of studies reporting improvement with treatment was similar between the youngest (<6 years) and oldest (≥10 years) ages-of-treatment-initiation groups.

Conclusions: Long-term academic outcomes are adversely affected by ADHD, and improvement in both academic performance and achievement measures is associated with treatment, proportionally most often with multimodal treatment.

Keywords: ADHD, treatment, comorbidity, long-term, functional outcomes.

PS-050

Effectiveness of the Ste-Justine integrative intervention for pediatric obsessive–compulsive disorder

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Cognitive behavioural therapy (CBT), with or without medication, is the most widely recognized treatment for pediatric and adult obsessive–compulsive disorder (OCD). Recently, family-based interventions have also proven effective in treating pediatric OCD, possibly because they contribute to alleviating familial accommodation to the child's symptoms. The professionals of an outpatient psychiatry clinic, specializing in the treatment of pediatric anxious disorders developed an integrative intervention for children and adolescents diagnosed with OCD.

Objectives: The goal of the present study was to assess the effectiveness of this intervention on 19 (10 boys, 9 girls) patients aged between 10 and 18 ($M = 15.1$; $SD = 2.03$) after 6 months of treatment. The majority of patients (57 %) presented with one or more comorbidities, ranging from anxiety disorders (separation anxiety, panic disorder, social anxiety, agoraphobia or PTSD) to ADHD, ODD and tics. The treatment included individual psychotherapy (integrative CBT and psychodynamic therapy), family therapy (CBT, systemic therapy), and medication when necessary. Usually, therapy was given once a week.

Method: To evaluate treatment's effectiveness, questionnaires and standardized clinical evaluations were administered before the intervention (pre-treatment) and 6 months after the beginning of the intervention (post-treatment). The questionnaires measured symptoms severity (CY-BOCS) and familial accommodation (FAS) and the clinical evaluation measured the general functioning of the participants (C-GAS).

Results: Pre/post-treatment comparisons showed a decrease in OCD symptoms severity ($t(20) = 6.91$; $p < 0.01$), with four (21 %) cases becoming subclinical. Parental accommodation also significantly decreased ($t(21) = 6.04$; $p < 0.01$) and general functioning of the participants significantly increased ($t(28) = -5.12$; $p < 0.01$) between pre- and post-treatment.

Conclusion: In conclusion, the integrated intervention was effective in reducing OCD symptoms in children and adolescents. This reduction was paralleled by an increase in the general functioning of children and adolescents and also by a change in the family system, which accommodated the residual symptoms of the child to a lesser extent. Future studies with larger sample size could aim at clarifying the role (i.e., mediator or moderator) of familial accommodation in reducing pediatric OCD symptoms.

Keywords: Obsessive–compulsive disorder, children, adolescent, treatment

PS-051

Presence of feeding disorders, gastrointestinal disorders and recurrent infections in children with Autism Spectrum Disorders compared with their healthy siblings

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Introduction: Autism spectrum disorders (ASD) are a heterogeneous group of different neurobiological processes, which are characterized by the co-existence of deficits in multiple functional, social and cognitive areas. One area of growing concern is that related to nutrition. The cause of the alterations in the development of the feeding area in autistic children is unclear, and there is currently no agreement to define the primary or secondary nature of these alterations.

Aim: To analyze feeding habits, history of intestinal disorders, allergies and recurrent infections in a population of children and adolescents with ASD.

Subjects and methods: A cross-sectional design and retrospective case–control study was made. The sample comprised 138 subjects: 84 children and adolescents suffering from ASD (DSM-IV criteria) and 54 controls (brothers of the sample subjects). A questionnaire was designed specifically for this study that was completed by parents.

Results: When comparing the feeding habits of autistic children and controls, we see that autistic children have more difficulties in: incorporating solid foods, absorb with straw, developmental delay to drink from a cup, incorporating new foods, difficulties chewing food, more rejections and pica behavior. Differences in recurrent infections or gastrointestinal disorders were not statistically significant.

Conclusion: Children and adolescents suffering from autistic disorders have more alterations in the development of the feeding area that their siblings. These alterations do not correspond to a higher frequency of gastrointestinal disorders and/or allergies.

Keywords: Autism spectrum disorders, feeding behavior, recurrent infections, gastrointestinal disorders, allergies.

PS-052

Relations Between obesity and signals of depression a sample of brazilian children and adolescents

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In Brazil, even if there are still problems of malnutrition, there isa growing number of children and adolescents with obesity, which is a serious illness. Children generally gain weight for various factors, such as inadequate food habits inheritance, sedentary lifestyle, psychological problems, family or relationship difficulties, among others. In the other hand, obesity causes psychological effects on the child and can leave lifelong consequences. The objectives of this research were: to check the ratio of children and adolescents with normal weight and obese in a municipal school of São Paulo and to search relations between signs of depression and obesity in children and adolescents. The sample consisted by 324 children and adolescents (with no endocrine disturbances), 52 % female and 48 % male, between 6 and 15 years old. Ethical procedures were followed, and Interviews were carried out and the ratio of children and adolescents with normal weight and obese were obtained. To evaluate the presence of depression was used the Brazilian adaptation of the Children's Depression Inventory-CDI (Kovacks). The main results obtained were: the majority of children and adolescents had a Normal level of weight (77 %), 12.0 % showed overweight; and 5.9 had obesity, more in the girls, between 13 and 14 years old (22.9 % with overweight and 8.3 % with obesity). The total points in CDI for the Brazilian population (17) are indicative for clinical depression. The group with obesity, and overweight have obtained an average of 13 points, which can be considered indicative of signs of suffering, In general there are scores, among children with overweight and obese which shows that these children are feeling bad. In this study, obesity and overweight are not the only factors that are responsible of the results in CDI. But, children and adolescents with obesity and overweigh showed signal of suffering, not necessarily clinical depression. They showed several difficulties in equal relationship, in body image, bad sensation and feeling of loneliness, in phrases of CDI. Those aspects were confirmed in interview with several children and adolescents, that will be presented as clinical illustrations.

Keywords: Children, adolescent, obesity overweight, depression, CDI.

PS-053

Expert consensus for the diagnosis and the treatment of ADHD in Japan, 3rd Step: drug therapy

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Aims: The objective of this study was to revise the current guideline for diagnosis and treatment of ADHD in Japan to make more adaptable to present social and clinical situation by investigating thespecialists' recommendationsand creating expert consensus. This is the 3rd step of all three compositions; diagnosis and assessment, psychosocial therapy, and drug therapy.

Method: Eighty-two psychiatrists and pediatricians, who are members of Japanese Association for ADHD, were selected as the experts and asked to answer a series of questions with 513 items of the questionnaire, which is divided into 13 categories: indicators for starting drug therapy in early therapeutic stage, indicators for the introduction of drug therapy after psychosocial therapies become clear not to be effective sufficiently, the recommended duration for the start of drug therapy, the GAF scale for adopting drug therapy, necessary information collected from the patient before drug therapy, necessary information given to the patient before drug therapy, the 1st choice of drug therapy for the ADHD patient without comorbidity, the next strategy of drug therapy for the ADHD patient without comorbidity when 1st medication is not effective sufficiently, the 1st choice of medication for the ADHD patient with anxiety disorders, depression, tic disorders, or ODD/CD, and indicators for the effectiveness of drug therapy. The Delphi method was applied to obtain the consensus.

Result: Sixty-seven experts completed two rounds of the questionnaire along Delfi method. Sixty-five of 513 items corresponded to the primary recommendation. For example, the 1st choice of drug therapy for the ADHD patient without comorbidity is, Mehtylphenidate-OROS or Atomoxetine as a primary recommendation.

Conclusion: Though only two drugs, such as Methylphenidate-OROS and Atomoxetine, are officially administered for the ADHD patients, the result of this study offers standards for the drug therapy of ADHD to Japanese clinicians.

Keywords: Expert consensus, ADHD, drug therapy, questionnaire, primary recommendation.

PS-054

Factors influencing to reason for living in high school students

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Backgrounds: An increased rate of suicidal behavior of adolescents is a global trend including the United states as well as Korea (Statistics Korea, 2010; Centers for Disease Control and Prevention. Health, United States, 2008), and has emerged as one of important social concern. Linehan and colleagues adopted a different approach to assess the suicide protective factors that continue to life in spite of distress and adversity in life among adolescents (RFL, Reasons for Living inventory, Linehan, Goodstein, Hielsen, and Chiles, 1983) and Osmanm and colleagues made RFL-A by modifying adult scale (Osman et al., 1998). In Korea, Original RFL-A has been translated into Korean and research on the validity was performed. Also, association of RFL-A and other factors (suicidal behavior, hopelessness, social desirability, life orientation) was evaluated (Kim, 2012). But there is no study evaluate the association of RFL-A and ego-strength (self-esteem, locus of control) and psychopathology in Korea.

Objectives: This study was conducted to examine which factors are influencing to the reason for living by using scales of self esteem, locus of control, depression and scales evaluating suicidality in adolescents.

Methods: The participants consisted of 751 first grade high school students (460 male and 291 female students) in Seoul. To know their reason for living, we used the adolescent form of reason for living inventory (RFL-A). We assessed their self-esteem and locus of control by Rosenberg Self-Esteem Scale (RSS), and Nowicki-Strickland

Locus of Control (LOC). We also evaluated their depression and suicidality by Beck's Depression Inventory (BDI), Scale for Suicidal Ideation (SSI), Beck Hoplessness Scale (BHS), and Adolescent Suicide Questionnare (ASQ).
Results: There was no difference in RFL-A scores between male and female students. RFL-A scores had significantly negative correlation with LOC ($p < 0.01$), BDI ($p < 0.01$), SSI ($p < 0.01$) and BHS ($p < 0.01$) scores, and also RFL-A scores had significantly positive correlation with RSS ($p < 0.01$) scores. Students with higher BHS scores had less RFL-A ($p < 0.001$) scores, and students with history of suicidal attempt had less RFL-A ($p < 0.05$)scores than non attempt students on ASQ.
Conclusion: Our analysis indicates that more hopeless adolescents have less reason for living. Other factors including self-esteem, locus of control, depression, and suidical ideation are relevant to the reason for living. Finally, RFL-A was proved as an useful tool in discriminating suicide attempters from non attempters.
Keywords: Factors, reason for living, high school students.

PS-055
Conversion disorder in a 30-months-old child

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Conversion disorder is a condition in which a person has blindness, paralysis, or other nervous system (neurologic) symptoms that cannot be explained by medical evaluation. Although it is often thought that the frequency of conversion may be higher outside of the West, perhaps in relation to cultural and medical attitudes, evidence of this is limited 5.[1] A community survey of urban Turkey found a prevalence of 5.6 %0.[2] Many authors have found occurrence of conversion to be more frequent in rural, lower socioeconomic groups, where technological investigation of patients is limited and individuals may be less knowledgeable about medical and psychological concepts.[1,3,4]. Conversion disorder may present at any age but is rare in children younger than 10 years or in the elderly. This case report presents an 4-year 3-months-old patient diagnosed with conversion disorder, whose complaints started at 30-months-OLD age. Her symptoms included contaction of hands and feet, fainting, unable to open her eyes. Her syptomes accured generally in stressful stiations or when she was with her father. She was consulted to neurology department, all routine investigations and EEG were normal.
Keywords: Conversion, childhood, epilepsy

PS-056
Very early onset schizophrenia: a case report

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Schizophrenia is an extremely rare condition in prepubertal children; psychotic symptoms in this age group need careful evaluation and may be due to many other disorders. Childhood onset schizophrenia, where children's symptoms meet criteria for schizophrenia and where symptoms start before the age of 13, is a very rare disorder with a prevalence of less than 1/10.000 (Asarnow et al., 2004). Childhood schizophrenia is essentially the same as schizophrenia in adults, but it occurs early in life and has a profound impact on a child's behavior. Childhood schizophrenia includes hallucinations; delusions; irrational behavior and thinking; and problems carrying out routine daily tasks, such as bathing. With childhood schizophrenia, the early age of onset presents special challenges for diagnosis, treatment, educational needs, and emotional and social development. It is rarely reported-under 6 years of age in the literature. Here we present a 4.5-years-old boy who developed psychosis and discuss the clinical and familial features, diagnostic and treatment processes and 8 years follow-up of this particular case. He showed mild regression in speeking, decrease in social relation, visual halusinations (vision of spiders), smell halusinations, agression, not interesting in toys, clapping his hands, swinging, seeing a penguen looking at him, seeing a man looking at him from wardrobe, talking to shadows, loughing idly. He was consulted to neurology department, all routine investigations and EEG were normal. We used an integrative approach in the therapy. We applied Risperidon and observed more syptoms ın the free-medicine interval due to gripal infection. Also we visit the paitent once a week in our outward clinic.
Keywords: Very early onset, infantil, schizophrenia

PS-057
Attention orienting in autism spectrum disorders: brain function and connectivity

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Background: Deficits in attention are consistently reported in Autism Spectrum Disorders (ASDs) and researchers suggest that the behavioural deficits characteristic of ASD may be due to an inability to orient attention to social stimuli. Spatial attention orienting is a cognitive process that facilitates the movement of attentional focus from one location to another in response to a stimulus. Neuroimaging studies support the modulation of two interacting networks in attention orienting, the dorsal frontoparietal network responsible for cognitive selection of sensory stimuli and the ventral frontoparietal system which functions to direct attention to unattended relevant stimuli.
Objectives: This study aims to dissociate dorsal and ventral attention networks in an ASD population to determine if the cognitive selection of sensory information and/or the function to direct attention to behaviourally relevant stimuli are impaired using functional MRI techniques.
Methods: 21 individuals with high functioning ASD and 21 age and IQ matched control participants performed a Posner spatial attention paradigm consisting of four trial types; valid, invalid, neutral and cue-only. Reaction time (ms) to target appearance was used to measure behavioural performance. Functional MRI data was acquired in a 3 Tesla MRI scanner. Preprocessing and analysis was carried out using AFNI and FSL imaging software. First-level contrasts and second-level *t* tests were performedto evaluate within and between groups differences. All data was corrected for multiple comparisons at $p < 0.05$.
Results: ANOVA revealed participants performed significantly better on valid trials than invalid and neutral trials, $p < 0.001$, however there was no significant difference in behavioural performance between groups, $p = 0.436$. A *t* test of cue-only trial activation revealed no significant difference between the ASD and control

group, $p < 0.05$. A between group comparison of invalid-valid trial activation yielded significant group differences in the parietal, frontal and temporal regions, $p < 0.05$.

Conclusions: Although behaviourally similar, analysis of fMRI images revealed significant differences between groups in a number of regions. Differences observed in frontoparietal regions may be an indication that individuals with ASD use a compensatory mechanism in order to attend to behaviourally relevant stimuli similarly to controls. These observations are in keeping with the theory that functional connectivity may differ in individuals with ASD in comparison to typically developing individuals.

Keywords: Autism fMRI attention orienting

PS-058

Measuring stigma in childhood and adolescence: the peer stigmatization scale (PSS)

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A major problem faced by children and adolescents with mental health problems is integration with peer groups. At least part of this integration problem may be due to the stigmatizing attitudes of peers. Such stigma has wide reaching consequences that include reducing help seeking, limiting uptake of mental health services and compromising adherence to treatment. Fortunately research demonstrates that mental health stigma can be changed with well designed interventions. However, evaluation of such interventions requires developmentally appropriate measures that can be used to capture children's attitudes towards peers with mental health problems. The primary aim of this study was to develop a valid and reliable stigma questionnaire for use with children and adolescents. This poster will describe the development and psychometric properties of the Peer Stigmatization Scale. The scale was adapted from a measure that had previously been used to investigate attitudes held by adults with severe mental illness. The primary consideration in adapting this questionnaire was to capture a child specific context. The psychometric properties of the questionnaire were investigated with a sample of 562 Irish children and adolescents (9–16 years). Principal Components Analysis revealed two main components. The *Stereotype Awareness* component contains items that tap children's awareness of the negative beliefs about youth with mental health problems that are held by members of their society. The *Stereotype Agreement* component contains items that capture children's personal endorsement of the negative beliefs that they perceive members of the public to hold toward young people who have these problems. There was a statistically significant difference between scores on the 'Stereotype Awareness' and 'Stereotype Agreement' subscales, whereby participants had higher scores on the former subscale than on the latter $t(516) = 23.87$, $p < 0.05$. In this poster the theoretical and empirical basis for the development of this questionnaire will be discussed. The main findings will be highlighted, including an overview of the items that were retained the scale and details of the test re-rest reliability of the scale. Finally, the potential for these findings to inform psychiatrists on how to help children with psychiatric disorders overcome the impact of stigmatizing attitudes will be considered.

Keywords: Stigma; children; adolescents; mental health; scale development; peers.

PS-059

Toulouse Pieron: utility as a diagnostic tool and comparative evolution of ADHD treatment

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Introduction: The ability to maintain an activity or complete a task is one of the usual difficulties in children with ADHD, and improve these aspects one of the goals of treatment. The assessment should include the evolution of objective measurements of changes in the working memory capacity coincident with treatment. This requires reliable and accessible tools from clinical practice.

Objectives: Improving the evidence to substantiate the objective assessment of the diagnosis, and the improvements obtained with drug treatments for ADHD in everyday clinical practice. Quantifying changes in working memory capacity coincident with the start drug treatment in cases diagnosed ADHD, measured before the start and after 4–8 weeks.

Method: In the present study 40 patients (with a diagnosis of ADHD, and normal mental level that have not yet initiated drug treatment) aged 6 to 17 years Attending our first consultation Center Children and Youth Mental Health referred by their pediatricians or educational institutions (for diagnosis and treatment) suspecting a possible diagnosis of ADHD. The consultation will be assessed sustained attention, concentration, resistance to monotony and perceptual speed test by Pieron Toulouse. The aim of the study was to study the usefulness of the test as a diagnostic aid measure and to assess the improvement achieved with treatment. In 16 of the 40 cases the study was repeated with TP at 4–8 weeks of starting treatment with methylphenidate.

Results: The sample pre-treatment initiation scored an average of 30.3 percentile test, with a mean of 97.26 points. In 16 of the 40 cases the study was repeated after starting treatment with methylphenidate. Comparing the observations before and after treatment the yield obtained in the test had increased between 72.4 and 79.8 points with a 95 % confidence.

Discussion: The results confirm the untreated TP poor performance in this test, according to the negative impact of ADHD on working memory. Moreover provide a quantified measure both cases gravity as for evaluation, in this aspect of the response to treatment. The significant improvement of the cases after the initiation of treatment may further serve as a reference for quantification of evolution, in this case quantified and objective but should be explored the possibility that the performance in the test is increased from the second exploration.

Conclusions: The test is affordable, cost and time, for use in everyday clinical. Adding one more item to evidence-based diagnosis. Despite the small sample size, the results suggest the usefulness for the query objectify the quantitative evolution of the patient with drug treatment in their tasks of attention and concentration.

Keywords: ADHD; Toulouse Pieron.

PS-060

The interpersonal theory of suicide and adolescent suicidal behavior

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Introduction and aims: Suicide is the second cause of death among young people in Israel. Studies of suicidal behaviour have provided valuable information about the risk factors associated with these behaviors, yet there is not much information about predictors of transitions from suicidal thoughts to actual suicide behavior. The current study aims to elucidate the mechanisms in which suicidal ideation emerges over time and how suicidal ideation can lead to suicidal actions. We will attempt to determine the effects of risk factors such as psychopathology, non-suicidal self-injury (NSSI) and risk behaviors on suicidal behavior. This will be examined through the prism of a putative model of youth suicidal behavior based on the theoretical framework of Joiner's Interpersonal Theory of Suicide.

Methods: The prospective study design included baseline and two follow-up assessments within a year. Follow-up sample included a total of 708 adolescents from schools throughout Israel. The students completed self-report questionnairesregarding suicide ideation and attempts, psychopathology, life style, socio-demographic background, non-suicidal self-injury, life events and social support.

Results: Within the follow-up year, 9.0 % of the students reported suicidal behavior. Results indicate that interpersonal distress and internalizing disorders at baseline predicted later levels of suicidal ideation. The effects of interpersonal factors on ideation were partly or fully mediated by internalizing symptoms. We also found that increases in suicidal ideation and in engagement in risk behaviors and NSSI over time were associated with the occurrence of a suicide attempt within the follow up period.

Conclusions: The model identifies the different phases along the path to suicidal behavior, and risk factors associated with each phase. Hopefully this model will improve our understanding of the short-term course of suicidal behavior among adolescents, which may lead to potential improvements for intervention and prevention.

Keywords: Suicide, self-harm, NSSI.

PS-061

The relationship between anxiety disorders, anxiety sensitivity and deliberate self harm in adolescents with depression

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Studies show that depression demonstrates robust relationships to suicidal thinking and behaviors in youth. However, there have been high overlapping ratio between depression and other clinical syndromes such as anxiety disorders and very few studies of youth have analyzed relationships between the dimensions of psychopathology and suicidality. Therefore, we should develop more parsimonious models for clarifying the association between psychiatric problems and suicidal acting. In this study, we aimed to investigate the impacts of depression severity, the presence of anxiety disorders, anxiety sensitivity, suicidal ideation and patients' demographic characteristics on suicide attempt in a group of adolescents with depression. When considering the strong relationship between self-mutilation and suicidal behavior, we also evaluated the predictors of this clinical condition. The sample consisted of 82 adolescents with major depression aged 12–18 years. The Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS) was used to make the diagnosis of depression and coexisting anxiety disorders (except specific fobia). They were assessed using by the Child Depression Inventory (CDI), Suicide Probability Scale (SPS) and Childhood Anxiety Sensitivity Index (CASI). The history of suicidal attempt and self mutilation of the patients were recorded. Logistic regression analyses observed that the presence of the anxiety disorders and SPS suicidal ideation subscale positively predicted both the history of suicidal attempt (OR = 21.4, p = 0.011 and OR = 1.32, p = 0.009, respectively) and self-mutilation (OR = 11.37, p = 0.020 and OR = 1.30, p = 0.009), whereas depression severity did not show association with these behaviors. On the other hand, CASI scores and the education level of the fathers negatively predicted the history of suicide attempt (OR = 0.82, p = 0.031 and OR = 0.62, p = 0.006) and the latter also negatively predicted self-mutilation (OR = 0.76, p = 0.047). These findings suggest that the presence of anxiety disorders and anxiety sensitivity have opposite effects on the risk of suicidal behavior in adolescents.

Keywords: Suicide, self-mutilation, anxiety sensitivity, depression, adolescents.

PS-062

Trajectories of autistic persons in Quebec

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Aims: This study was undertaken to analyse the changes that have occurred in the diagnostic practices and provision of services for autism in Quebec. We compared the trajectories of autistic children and adults aged from 4 to 60 years old.

Materials and methods: Quantitative and qualitative data were obtained from 77 medical records from Rivière-des-Prairies Hospital at Montreal (87 % boys and 13 % girls) (49 % severe autism, 26 % moderate autism, and 25 % Asperger and mild autism).

Results and conclusions: Increasingly earlier age at diagnosis was evidenced, as well as more frequent detection of the disorder and of milder forms of autism. From 1950 to 1990, autism was often assimilated to psychosis, personality disorder, behaviour disorder, and/or mental retardation. The children were usually separated from the parents and hospitalized over long periods of time (for 37 years in one instance). In the mid-1990s, the DSM-IV criteria were more and more widely used for the diagnosis. At the end of the 1990s, the Autism Diagnostic Interview (ADI) and the Autism Diagnostic Observation Schedule (ADOS) were used in the evaluation department specialised in the pervasive developmental disorders (PDD) at Rivière-des-Prairies Hospital. Since the early 2000s, the Intellectual Disability Rehabilitation Centres (IDRC) have aimed to develop interventions and services for children with PDD, as well as support for their families. In 1999, a new law was adopted to favour school integration for children with PDD. However, some schools merely take in autistic children and do not really favour integration. Since 2003, children aged from 2 to 5 years can have intensive behavioural intervention (IBI) for 20 h per week but less than one-third actually receive IBI because of the long waiting lists. Great variation in the number of hours is observed (from 2 to 30 h) and IBI requires a strong commitment by the parents. The prescription of medication is very high in Canada, much more so than in France. For severe autism, the outcome does not appear better than previously and for children and adolescents with mild autism, the incidence of bullying at ordinary school is significant. In summary, numerous changes have occurred over the last 10 years. Families today obtain the diagnosis of autism earlier, and on the basis of standardized tools, but the difficulties in obtaining services and help still remain. The feeling that the outcome is improving seems to stem from the focus on milder forms of autism.

Keywords: Autism, Quebec, trajectories

PS-063

Parents of young people with self-harm or suicidal behaviour who seek help—a psychosocial profile

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Background: There are few programmes for parents of young people with self-harm or suicidal behaviour, despite evidence that good communication and a positive relationship with a parent is protective against further self-harm. The SPACE Programme is an eight session group programme for parents of young people with self-harm or suicidal behaviour. Initial evaluation has shown it to be effective, and it is currently being evaluated using a RCT. This presentation is a psychosocial profile of the parents who have participated in the RCT.

Method: Parents who attended an Introductory Evening about the SPACE programme, with a view to taking part in the next programme, completed a socio-demographic questionnaire, The General Health Questionnaire (GHQ 12), The Kansas Parenting Satisfaction Scale, The Family Communication Scale of the McMaster Family Assessment, The Multidimensional Scale of Perceived Social Support, and the Strengths and Difficulties Questionnaire (SDQ).

Results: One hundred and thirty parents participated. Fifty percent had themselves experienced a mental health difficulty, including self-harm in 8 %. Most scored in the 'caseness' range on the GHQ, and reported little satisfaction in their parenting, poor social support, and major difficulties in family communication. There was a significant correlation between parents' GHQ score and lack of satisfaction in their parenting, family communication difficulties, and their young people's SDQ score. Their young people had engaged in recent self-harm, most frequently cutting and overdoses, with forty percent engaging in multiple methods and on multiple occasions.

Conclusions: Parents of young people with self-harm or suicidal behaviour who seek help experience high levels of mental health and family problems, associated with their young people's difficulties. Targeted support for such parents to address the context in which self-harm occurs should be considered.

Keywords: Self-harm, Suicidal behaviour, DSH, Parent support.

PS-064

Psychological intervention for adolescents diagnosed with learning disorders—i can succeed (ICS): 6 month follow-up of an open treatment trial

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Study objectives: To report on a 6 months follow-up of a manual-based psychological intervention for adolescents diagnosed with learning disorders—i can succeed (ICS).

Theoretical framework: Learning disorders (LD) often co-occur with other psychiatric disorders but only few studies have examined psychological interventions for adolescents with LD. ICS is a manual-based psychological intervention which focuses on developing intrapersonal, interpersonal and school/community skills, and addresses both emotional and academic-executive functions aspects of LD (Kopelman-Rubin, et al., in press). Pre-post changes indicated a significant decrease in both externalizing and internalizing scales of the The Child Behavior Checklist (CBCL) (Achenbach, 1991), as well as in various subscales (Kopelman-Rubin, et al., 2012). The current analysis will be the first to examine the intervention's impact on psychopathology at a 6 month follow-up.

Method: Participants: Participants were 40 junior high school students with various types of LD and other co-morbid psychiatric disorders and their parents.40 Parents completed the CBCL on their adolescent children, before the intervention, 37 after the acute phase of treatment and 27 at the 6 month follow-up. Those who did not complete the 6 month follow-up did not differ significantly in regard to their adolescent's age, gender, LD, psychiatric co-morbidity, socio-economic level and medication.

Procedure: ICS intervention was delivered in an open treatment trial in an outpatient psychiatric clinic.

Instruments:

The Child Behavior Checklist (CBCL) (Achenbach, 1991).

Results and discussion: All analyses were undertaken using mixed-model analyses with assessment time point as a repeated factor. Significant improvement between baseline and 6 months follow-up were found in both externalizing and internalizing problem scales of the CBCL, $F(2, 63.77) = 10.3$, $P < 0.01$; $F(2, 65.58) = 4.6$, $P = 0.01$ respectively, as well as in most subscales: social problems ($F(2, 65.4) = 5.99$, $P < 0.01$), anxiety/depression ($F(65.73) = 6.87$, $P = 0.02$), aggression ($F(2, 64.1) = 8.98$, $P < 0.01$), somatic complaints ($F(2, 64.9) = 4.82$, $P = 0.01$), thought problems ($F(2, 65.3) = 9.76$, $P < 0.01$) and delinquent behavior ($F(2, 64.67) = 6.65$, $P < 0.01$). For attention problems, however, significant improvement was not found at 6 month follow up ($F(2, 67.46) = 0.6$, $P = 0.1$). Maintaining improvement of attention problems may thus need more follow up ICS sessions or a different intervention. RCTs with a larger sample size and longer follow up are needed to further examine the effectiveness of ICS.

Keywords: Learning disorders, psychological intervention, adolescents.

PS-065

Inpatient treatment program for autism spectrum disorders in the Tokyo metropolitan children's medical center

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Background: The Tokyo Metropolitan Children's Medical Center is a general pediatric hospital with 34 clinical departments, including child and adolescent psychiatry. We have an outpatient clinic and beds for 200 inpatients. Our hospital contains almost 20 % of child and adolescent psychiatric ward beds in Japan. We have an inpatient treatment program for patients with Autism Spectrum Disorders (ASD). When a patient is admitted to our psychiatric ward, a systematic assessment, including developmental and cognitive tests, is performed. We plan treatment programs individually according to this systematic assessment. We have special programs for patients with ASD, such as Social Skill Training, anger management training, group therapy, medication, and some psychotherapeutic approaches. To clarify the clinical features of ASD inpatient treatment, we evaluated data from inpatients admitted to our psychiatric ward.

Methods: Subjects were patients with ASD admitted to our pediatric psychiatric ward between March 2010 and February 2011. Data were collected from the medical records of each patient and we evaluated the clinical characteristics of the patients.

Results: Subjects included 190 patients (159 boys, 31 girls) over the entire observation period. Patients ranged in age from 3 to 18 years (mean, 13 years). 18 % of patients were referred to our clinic from elsewhere and most patients were from other hospitals and clinics (15 %). The most common reasons for hospitalization were behavior problems such as agitation, violence, and disruptive behavior. Of the 190 patients, 61 % had school refusal. Inpatient treatment periods ranged from 1 to 293 days (mean, 86 days).

Discussion: Inpatient treatment is helpful because we can provide comprehensive psychiatric treatments and services. We will describe the details of ASD inpatient programs in our hospital and their success in treatment.

Keywords: Inpatient treatment, autism spectrum disorder.

PS-066

The chronological development of intelligence quotient (IQ) in infantile patients with Pervasive Developmental Disorder (PDD) with intellectual developmental delay

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Aims: The aim of the study was to confirm what characteristics affect intellectual development measured by IQ tests among PDD infants with intellectual developmental delay.

Materials and methods: The subjects are 44 PDD infants whose IQ was under 70 at 36–54 months. They were outpatients at dept. of child psychiatry, Asahigawa-so Rehabilitation Medical Center, 2007–2009 and diagnosed as PDD according to the criteria of DSM-4. They all received the IQ test again at preschool age, about 3 years after the first IQ evaluation. The subjects were divided into two groups. One is high function group (HF group, IQ is above 75 at 66–84 months), and the other is low function group (LF group, IQ is under 70 at 66–84 months). Various clinical characteristics of two groups were compared, from medical records, retrospectively. In many subjects, IQ was evaluated by Tanaka-Binet intelligence scale. However, in some cases, DQ was evaluated by Kyoto Scale of Psychological Development 2001, instead of IQ. As the statistical analysis, both chi-2 test (if materials few, Fisher's test) and t-test was conducted. As multivariate analysis, logistic regression analysis was conducted, after excluding variants with $p > 0.200$ in bivariate analysis. The statistical analysis was performed using the SPSS 19.0 J software program (SPSS Inc., Chicago, IL).

Results: Among 44 children, 15 children were classified as HF group and 29 children as LF group. About the items of "type of diagnosis-Autistic Disorder and Not Otherwise Specified (NOS)", "ADHD (Attention Deficit Hyperactivity Disorder) comorbidity" and among sociality development at 18–24 months, "interest in other children", "joint attention", "functional play", HF group was significantly different from LF group. Logistic regression analysis revealed that "diagnosis" and "the presence of functional play" were independent factors associated with an increase in IQ test among PDD subjects.

Conclusion: It was suggested that the presence of functional play at 12–24 months and the diagnosis of PDDNOS were important factor as intellectual development in infant with PDD.

Keywords: Intelligence quotient, Pervasive developmental disorder, Chronological development.

PS-067

Antibodies against gliadin and casein and "gluten sensitivity" in subjects with autism spectrum disorders

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Introduction: A state of increased intestinal permeability, defined as "leaky gut syndrome", has been revealed among patients with Autism and Autism Spectrum Disorders. This state is responsible for uncontrolled passage of foodborne esorfine in the blood, interfering with the development of the Central Nervous Sistem. The finding of improvement in symptoms in not celiac autistic subjects, making a Gluten Free/Casein Free diet (GF/CF), led to think that in these subjects there is a state of gluten sensitivity.

Objectives: To evaluate prevalence of antibody to gliadin and casein in autistic children with/without altered intestinal permeability (IPT) compared to controls.

Patients and Methods: 162 autistic children and 44 healthy controls were enrolled. Intestinal permeability was assessed by means of the lactulose/mannitol test (LA/MA test). For antibodies screening many serologic tests were performed: total serum IgA, IgG, IgE; anti-α-gliadin antibodies (AGA IgA and IgG); anti-deamidated-gliadin-peptides antibodies (DGP IgA and IgG); specific IgG to b-Lactoglobulin, a-Lactoalbumin, casein and gliadin; specific IgE to b-Lactoglobulin, a-Lactoalbumin, gluten, casein, and milk; moreover, tissue-transglutaminase antibodies (tTG2 IgA) and anti-endomisium antibodies (EMA IgA) were evaluated to exclude Celiac Disease (CD).

Results: Intestinal permeability resulted altered in 32.8 % of autistic subjects and in 1 control. A large percentage of them (90.5 %) was on regular diet (RD); the introduction of a GF/CF diet improved barrier function in approximately 38.7 % of patients. Both total and specific IgA were normal in both groups, even negative t-TG and EMA. The AGA-IgG were increased in 31.4 % of autistic subjects. Overall AGA-IgG were increased in 38.9 % of children in RD compared to

6.3 % of those on a GF/CF diet. Even the IgG-DPG were increased in autistic patients (7.1 %). The IgG antibodies to gliadin and casein in autistic on GF/CF diet were significantly reduced compared with patients and healthy controls on RD. No difference was observed for the other parameters.

Conclusions: The results obtained demonstrate the existence of a subgroup of autistic subjects with altered intestinal permeability, who have a gluten sensitivity. Therefore they may benefit from a GF/CF diet.

Keywords: Autism, intestinal permeability, gluten and casein antibodies, glutensensitivity.

PS-068

Identification of specific behavioral, adaptive and cognitive pattern in a cohort of autistic patients: a study of correlation

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Introduction: Comorbidpsychiatric disorders may be unrecognized in children and adolescents with autism spectrum disorder (ASD). The assessment that the impact of psychiatric comorbidities have on the daily life of ASD individual requires, therefore, further research in order to allow a better understanding of what could be the most suitable treatment to be used in the light of the specific psychiatric problems of each patient.

Aim: To identify specific behavioral patterns in a cohort of ASD patients and describe the presence of behavioral correlates with their cognitive and adaptive characteristics.

Patients and methods: We enrolled 45 patients with ASD (6F-39 M), aged between 3 and 18 years (mean age 10.11 years). We proceeded to the administration of the Developmental Behaviour Checklist (DBC) to parents, for the assessment of possible psychiatric comorbidities (antisocial and destructive behavior, self-closing device, communication disorders, behavioral problems, social relations). A study of correlation (Pearson) between DBC, adaptive quotient (questionnaire Vineland) and IQ (test Leiter-R) was made.

Results: The Pearson correlation analysis has revealed the presence of linear correlation statistically significant with regard to the sub-scale "Self-closing device" of the DBC and the cognitive level ($\rho = 0.357$, with significance level 0.05 2-tailed); it should be noted, instead, a statistically significant but inverse relationship between the sub-scale "Communication disorders" of the DBC and the cognitive and adaptive level ($\rho = .\text{-}267$ and $\rho = .\text{-}346$, with significance level 0.05 2-tailed). Therefore, low-functioning ASD patients have a lower impairment of closure behaviors, while a more appropriate cognitive level determines solipsistic symptoms and more related to a sense and perception of social inadequacy. A greater impairment in communication is associated with lower levels of adaptation and cognitive development, statistically significant.

Conclusions: The results from our study are in line with the literature data, which reveal an higher incidence of symptoms and behaviors of internalization than externalization in patients with ASD. Our data highlight the possibility of classification of ASD according to complex phenotypic pattern through the identification of both adaptive and cognitive features that specific behavioral characteristics. This enables a more accurate possibility of operation, allowing a possibility of a more effective and individualized intervention, eventually also of pharmacological type.

Keywords: Autism spectrum disorder; psychiatric comorbidities; treatment.

PS-069

Attention deficit/hyperactivity disorder and psychiatric comorbidities: a systematic review of long-term outcomes

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Introduction: A characteristic of attention deficit/hyperactivity disorder (ADHD) is a high rate of psychiatric comorbidities, which may result in highly complex presentations for diagnosis, treatment, and assessment of treatment outcomes.

Objective: To examine the presence of and control for comorbidities in studies of long-term outcomes of individuals with treated ADHD.

Methods: A systematic search of 12 literature databases using Cochrane's guidelines yielded 51 English-language peer-reviewed, primary studies of long-term outcomes ($\geq$ 2 years) published from 1-1-1980 to 12-31-2011 that assessed treated vs. untreated ADHD. Comorbidities included any psychiatric condition considered by the study authors to be comorbid with ADHD. Treatment included any pharmacological, non-pharmacological, or combination treatment. Outcomes were grouped by common characteristics into nine major domains: academic, antisocial behavior, driving, non-medicinal drug use/addictive behavior, obesity, occupation, services use, self-esteem, and social function outcomes. Outcomes were dichotomized: those reported to improve and reach statistical significance and those that did not.

Results: Comorbidities were controlled for either by exclusion, regression/covariance, or separation (comparing ADHD with or without the comorbidity) in 31 studies and not in 20 studies. Comorbidities reported included internalizing and externalizing dimensions and others (eating disorder, learning disorders, low intelligence, pervasive developmental disorders, substance use disorder, tics, and Tourette's). Treatment for ADHD was associated with improvement for 65 % of outcomes in studies that controlled for comorbidities (primarily academic, driving, self-esteem, and social function outcomes) and for 55 % of outcomes in studies that did not (primarily drug use, obesity, and occupation outcomes). Comparison of different treatment modalities showed similar results: studies in which comorbidities were controlled reported a greater proportion of improved treatment outcomes compared with studies that did not, for both pharmacological and non-pharmacological treatment. For combination treatment, the proportion of improved outcomes was high (82 %) when comorbidities were controlled. Only one study of combination treatment did not control for comorbidities, and it reported improved outcomes.

Conclusions: Controlling or adjusting for psychiatric conditions comorbid with ADHD may clarify the effects of ADHD-directed treatment on long-term outcomes associated with ADHD.

Keywords: ADHD, comorbidities, outcomes, treatment.

PS-070
When mother-adhd child relationship is impaired—diabolic cycle

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ADHD is one of the most common behavioural disorders in childhood and adolescence associated with a number of negative outcomes including poor academic performance, and peer and family functioning. The exact aetiological pathways of ADHD are still unknown. ADHD is a multifactorial disorder in which genetic risk factors predominate and various other environmental factors may be involved. Impaired parent–child relationship in children with ADHD is common. Parents mayengage in parenting styles and patterns of family functioning whichmaintain or exacerbate ADHD symptomatology rather than alleviate it. During the year 2012, 22 youths (1 preadolescent girl and 9 preadolescent, 9 early adolescent and 3 late adolescent boys) were admitted for treatment at the Day Hospital of the Psychiatric Hospital for Children and Adolescents, Zagreb, Croatia, reflecting the epidemiology of ADHD which is more prevalent in boys and in childhood. We present a case of a 11 years old boy with ADHD who was referred for treatment in day hospital after his parents divorce. Treatment program included individual, group and family therapy. As mother–child relationship in this case was significantly impaired, family treatment geared toestablishing adequate parent–child bonding and communicationpatterns by educating parents and by skills training programs was undertaken in this case. This case highlights that in order to improve psychosocial functioning of children with ADHD it is important to develop an individually tailoredcomprehensive treatment plan that involves interventions aimed to reduce stress levels in the family by targeting interactional problems in the family and psychological and behavioral problems of family members.

Keywords: ADHD, parent–child relationship, family therapy.

PS-071
Hyper-systemizing theory in parents of children with autistic spectrum disorder

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Background: Acording with Hyper-systemizing Theory of autism (developed by Baron Cohen) the systemizing mechanism is set too high in people with Autistic Spectrum Disorder (ASD). As a result, they can manage only with highly lawful systems, and cannot manage with systems of high variance or change (such as the social world or other minds). According with Baron Cohen's theory autism could be the genetic result of two parents with a high systemizing quotient and a low empathy quotient (assortative mating).

Objective: The main objective of this research is to identify the level of systemizing and emphaty quotient in a sample of 50 couples (mothers and fathers of children diagnosed with Autistic Spectrum Disorders).

Method: We evaluated using AQ (Adult Autism Spectrum Quotient), SQ (Systemizing Quotient) and EQ (Empathy Quotient) a sample of 50 couples (mothers and fathers of children diagnosed with Autistic Spectrum Disorder). Their children (3–6 years old) were diagnosed with Autistic Spectrum Disorder in Child and Adolescent Psychiatry Department, "Prof. Dr. Al. Obregia" Hospital of Psychiatry, Bucharest Romania. Children were diagnosed after DSM IV-TR criteria for autism and using ADOS (Autism Diagnosed Observational Scheduled). All children had an ADOS scor over 8 (sugestive for Autistic Spectrum Disorder).The parents sample was compared with a control sample: 50 couples, parents of children with typical development from general population. The results were statistically worked using SPSS version 17.0.

Conclusions: The results are still in progress but from the preliminary results we can conclude that the SQ and AQ qoutient are higher and EQ Qoutient is lower in sample of parents with autistic spectrum disorder children.

Keywords: Hyper-systemizing, empathy, autism.

PS-072
Youth suicide risk and preventive interventions

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In order to organize the suicide preventive activities for the underage (under 18) with suicide risk we analyzed the factors of suicidal process. During the period from 2007 to 2012 we registered 641 young persons with suicidal behavior, of which 110 completed a suicide attempt.

The average suicide rate per year among the children was 3.9 per 100,000, while the suicidal attempt rate was 23.1 per 100,000. The number of committed suicides decreased from 5.6 per 100,000 (in 2007) to 4.1 (in 2012); 24 completed suicides occurred among persons younger than 14 with the rate increased from 1.3 to 1.5; in adolescents group 15–18 years of age there were 18.3 per 100,000 suicides with the rate decreasing from 19.9 to 17.9 respectively. At the same time we register the increase of brutal suicide methods—by hanging from 62.5 % in 2007 to 100 % in 2011 and 84.4 % in 2012; the next most common method is jumping off the height—there were no registered cases in 2007 and whereas there were 10.4 % in 2012, use of firearms—5.2 % in 2012. Among persons who committed a suicide, two have made previous attempts and nine had a history of psychiatric treatment for disorders such as major depressive episode, psychosis, conduct disorder, mild mental retardation, etc. During the last 6 years the rate of suicide attempts was increasing, including the number of parasuicides by hanging from 17.8 to 21.7 %, while the attempts through ingesting of toxic substances were decreasing. The predisposing factors of personal and psychological disorders were formed as a result of the long-term family conflicts, aggressive or cold relationships in 27.6 % cases. Poverty was registered in 5 % of cases and in 22 % the underage are raised in single parent families. Family violence as factor of suicidal behavior was registered in 0.9 % cases. Children-orphans accounted for 2 % of underage with suicidal behavior and children of foster families for 3.3 %.We note an increase in adolescent suicide related to TV programs, in which the main theme was the suicide of a teenager, the total of 19 cases; within a peer group through identification (copycat suicide)—5 cases. To address the high rate of suicidal behavior of the underage, we carry out a program, which includes monitoring of suicidal behavior; the early medical intervention for children and teenagers with suicidal behavior and risk groups (consultative and diagnostic, medical and rehabilitative assistance, including the enhancing of protective factors). The program is implemented by a variety of medical, social and educational institutions.

Keywords: Suicide, parasuicide, epidemiology.

PS-073

The overlap between autism spectrum disorders and ADHD: assessment of diagnostic tools

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Background: Many studies indicate that symptomatology of Attention deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) can co-occur. Although the evidence shows high rates of this phenomenon, both DSM IV-TR and ICD 10 preclude the diagnosis of ADHD in the presence of a pervasive developmental disorder. Until the appearance of DSM V and its change in the relationship between ASD and ADHD, the main effect of the exclusion criteria is a lack of diagnostic tools with implications for the clinical evaluation of this comorbidity.

Objectives: The main purpose of the present study was to explore the effectiveness of autism diagnostic observation schedule-generic (ADOS-G) and ADHD-RS (ADHD-Rating Scale) when these disorders co-exist. Using the instruments simultaneously, we aimed to identify the percentage of subjects with significant scores for both disorders and to establish the relationship between ADHD-RS scores and ADOS-G results.

Method: We analyzed the ADOS-G (Module 1) and ADHD-RS scores in a clinical sample ($n = 100$) aged 2–7 years. All of the subjects presented a heterogeneous symptomatology, showing characteristics of both disorders.

Results: 86 % of subjects exceeded the cut-off score for an ASD (autism = 64 %, PDD-NOS = 22 %), 55 % met the criteria for ADHD, scoring above 93rd percentile (ADHD-C = 45 %, ADHD-In = 8 %, ADHD-HI = 2 %). Linking the results from both diagnostic instruments we have obtained the following: 52 % had significant scores for both disorders, there was a weak positive correlation between Social-Communication Total score and ADHD-RS Total score ($r = 0.225$, $p < 0.03$) with the same pattern between social/communication score and inattention score. There were statistically significant differences between ASD groups (Autism/PDD-NOS) and nonASD group for ADHD-RS Total scores ($p_{t\ test} < 0.001$) but no difference between Autism and PDD-NOS group. Unexpectedly, there was a significant difference between ADHD-In group and ADHD-C/nonADHD group for their ADOS results ($p_{MWW} < 0.01$), with greater ratings for the first one.

Conclusion: The overall findings suggested that using the ADOS-G and ADHD-RS together, could be useful for a proper assessment when symptoms of ASD and ADHD are present. Between ADOS-G results and ADHD-RS scores exists a weak positive correlation. A possible explanation for the unexpected high ADOS-G results in ADHD-In group could be a misinterpretation of the poor eye contact as an impaired attention, but future research is required.

Keywords: Comorbidity, autism, ADHD, ADOS-G, ADHD-rating scale.

PS-074

Investigation of racemic/isomers of methylphenidate on enzyme activity

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Introduction: Attention-deficit/hyperactivity disorder (ADHD) is one of the most frequent psychiatric disorders in children and adolescents. ADHD is characterized by developmentally inappropriate levels of inattention, hyperactivity and/or impulsivity. Racemate of d/l-*threo*-methylphenidate (MPH; Ritalin) is an effective first-line treatment for the symptoms associated with ADHD. Although MPH has long been administered as a racemic mixture of the two enantiomers, converging lines of evidence drawn from investigations using in vitro systems indicate that it is predominantly, d-*threo* MPH which mediates the pharmacological/therapeutic actions of MPH. In the present study, we investigated the MPH influence on the tyrosine hydroxylase (TH), monoamine oxidase- B (MAO-B), catechol-O-methyltransferase (COMT) and aldehyde dehydrogenases (ALDH) enzyme activity *in vitro*, as all enzymes are important for dopamine efficacy.

Methods: The isolated enzymes (TH, MAO-B, COMT and ALDH) of rat pheochromocytoma cells (PC-12) were used for investigations of dose dependent in vitro effects of racematic, d- and l-*threo* MPH (0,1,10,100 nM and 1,10,100 μM). TH and COMT activity was detected via high-performance liquid chromatography methodology, while MAO-B and ALDH activity was measured using fluorescent based enzyme-linked immunosorbent assay

Results: We could observe dose dependent differences between racematic and isomers of MPH on almost all investigated enzymes activity.

Discussion: This exploratory investigation revealed in vitro pharmacological evidence for a potential difference between MPH racemate and isomers on dopaminergic enzyme activity. This finding might point to the therapeutic effects in the treatment of ADHD.

Keywords: ADHD, Methylphenidate, tyrosine hydroxylase, monoamine-oxidase B, catechol-O-methyltransferase, aldehyde dehydrogenase.

PS-075

Functional and structural connectivity of frontostriatal circuitry in ASD

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Previous research suggests that abnormal function and/or connectivity of frontostriatal circuitry may underlie deficits in social interaction and communication and restricted interests and repetitive behaviours in ASD. However, few studies have examined connectivity within this circuit in ASD and no previous study has examined both functional and structural connectivity within the same population. 28 right-handed male participants with high functioning ASD and 27 right-handed male, age and IQ matched controls took part in the MRI study (mean age: ASD = 17.28 (SD = 3.57); control = 17.15 (SD = 3.64); mean IQ ASD = 109.25 (SD = 15.04); control = 111.85 (SD = 12.32)). 21 ASD and control participants were retained for the fMRI analysis and 22 ASD and 24 control participants were included in the DTI analysis after excluding subjects for factors such as excessive motion (movements >3 mm) and poor data quality. fMRI preprocessing was carried out in SPM8 and functionalconnectivity analysis was carried out using the CONN toolbox Seed regions for the functional connectivity analysis were defined within the left and right frontal cortex. Target regions included the left and right striatum (caudate, putamen, accumbens). All ROIs were generated using the Harvard-Oxford probabilistic atlas. DTI preprocessing and analysis was carried out using Explore DTI. Tractography analysis was carried out between the frontal cortex and striatal regions that showed significant differences in functional connectivity, and was confined to intra-hemispheric tracts (i.e. right frontal cortex to right accumbens and right caudate). Fractional anisotropy (FA), Mean diffusivity (MD), Radial diffusivity (RD) and axial diffusivity (AD) were extracted for each tract of interest. T-tests and Mann–Mann–Whitney tests were carried out to examine group differences in functional and structural connectivity respectively. Results were corrected for multiple comparisons using an FDR correction ($p < 0.05$).The ASD group showed increased functional connectivity between the right anterior cingulate and right accumbens/left caudate, the right middle frontal gyrus and right accumbens/right caudate, the right paracingulate gyrus and right accumbens/right caudate and the left paracingulate gyrus and the right accumbens/right caudate. Although tracts were reliably constructed for each subject there were no group differences in structural connectivity in the tracts of interest. Results are in keeping with previously reported increased corticostriatal functional connectivity among children with ASD and indicate that increased frontostriatal connectivity persists among adolescents and young adults with ASD. Increased connectivity was recorded in cognitive and limbic (but not sensorimotor circuits) suggesting that abnormal frontostriatal connectivity may be implicated in social and cognitive deficits in ASD.

Keywords: Autism, neuroimaging, striatum, connectivity.

PS-076

Does treatment of ADHD sleeping problems improve attention, hyperactivity and impulsiveness in children with attention deficit hyperactivity disorder?

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Introduction: Sleep difficulties with no explanatory cause can be mistaken for ADHD, and that the kind of symptoms observed in primary sleep disorders can often be mistaken for ADHD as they are very similar to core symptoms of ADHD. These disorders are found to be related to hyperactivity and inattentiveness, and the very treatment of the sleep disorders has reduced—or even cured—both hyperactivity and inattentiveness. Studies using actigraphy found increased sleep onset latency and increased day-to-day variability in the sleep-wake pattern of children with ADHD compared with children without ADHD.

Aims: Based on actigraphic surveillance, sleep diary, ADHD symptom rating (ADHD-RS), functional impairment scale (WFIRS) and daily function (DDODS), this study will evaluate the effect of treating sleep in a sample of 6–13 year-old ADHD children. The sleep latency, number of awakenings and total length of sleep will be measured, as will the possible influence on parent and teacher rated ADHD symptom load and Quality of life.

Methods participants: A total of 35 children aged 6 years to 13 years are included. All referred to a child and adolescent psychiatric department and diagnosed with ADHD. The diagnostic evaluations is based on face-to-face parent interviews and a clinical assessment, and the hyperkinetic disorder (ADHD) is diagnosed in accordance with the ICD-10 Classification of Mental and Behavioural Dis-order.

Methods: To improve sleep we use a ball blanket, which former has shown effect on sleep improvement. The children will sleep with the ball blanket in 8 weeks. Parents are asked to evaluate sleep patterns using sleep questionnaire and sleep diary. Quality of life, using QoL-WFIRS rating scale, daily functional level using DDODS and parents and teachers are asked to evaluate ADHD symptoms before, during and after the child using the Ball Blanket. Actigraph will be used to obtain an objective view of the sleep pattern. Sleep recording will take place in the children's own home and will be obtained in 3 periods of 7 days during the 8 weeks.

Results: The study is ongoing. We will present preliminary result from the study, regarding eventual effect on ADHD core symptoms and child and family quality of life by treating ADHD related sleep problems. Our hypotheses is, based on other studies, that prolonged use of a ball blanket in children with ADHD and sleeping difficulties not only will improve their sleep, but also will influence on their ADHD symptoms.

Clinical relevance: Provide this study finds impact on treating sleep in children with ADHD on the ADHD core symptoms, the consequence may be more focus on detecting sleep problems in children with ADHD, treating the sleep problem effectively and maybe that way reduce the use of stimulants.

Keywords: ADHD, sleep, treatment.

PS-077

Autobiographical memory in adolescent girls with anorexia nervosa

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Background: Autobiographical memory is the warehouse for the affected related experience of our life. It stores the personal history from which the Self is constructed. Autobiographical memory is fundamental for the development of one's self-concept in adolescence. Moreover, the capacity to recall personal experiences contributes to social interaction, to emotion regulation and to social problem solving. In literature, a predominance of overgeneral autobiographical memories was described in a variety of psychiatric diseases: depression, post-traumatic stress disorders, schizophrenia and eating disorders.

Aim: To estimate the autobiographical memory in anorexic adolescent patient vs. healthy volunteers.

Materials and methods: Twenty-four girls with anorexia nervosa (AN) and 48 healthy female subjects with an age range of 11–18 ys (mean = 15.36; SD = 1.90) were enrolled. The autobiographical memory test of Williams and Scott (AMT), the EDI-3, the TAS-20, for the evaluation of alexithymia, and the CDI, to disclose depressive traits, were administered to all the subjects. The AMT test consist in the recalling of autobiographical memories in response to ten emotional cue words, five positive and five negative, selected from the list used in previous research and that have been successful with adolescent clinical population.

Results: Girls with AN showed a massive overgeneral memory effect, when compared with healthy subjects. This effect was observed both for negative and positive cues. Moreover, the tendency to organize autobiographical memory in overgeneralizations wasn't correlated to the presence of depression or alexithymia, conditions often associated to AN and highly represented in our sample.

Discussion: The alteration of autobiographical memory, described in adult patients, manifested itself already in adolescence and then at the beginning of anorexic disease. Girls with AN seemed to avoid both positive and negative emotions, showing an inadequate integration of affective experiences. Therefore, a relevant dysregulation of emotional processes and the consequent affective disorder might contribute in the lack of a sense of identity in adolescents with AN.

Keywords: Anorexia nervosa, autobiographical memory, adolescence.

PS-078

Are the perinatal risk factors different for the inattentive and combined subtypes of attention-deficit/hyperactivity disorder?

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Objectives: To compare the attention-deficit/hyperactivity disorder (ADHD) combined subtype (ADHD-C) to the ADHD inattentive subtype (ADHD-I) in terms of perinatal risk factors and clinical and neuropsychological characteristics.

Method: A total of 155 medication-naïve children diagnosed with ADHD between the ages of 6 and 15 years participated in this study. The parents of the children completed the structured diagnostic interview, the ADHD Rating Scale-IV (ADHD-RS), the children's behavior checklist (CBCL), and structured questionnaires on perinatal and developmental risk factors, and the children underwent a neuropsychological test. A total of 502 children without ADHD were recruited from the community as a healthy control group.

Results: Patients with ADHD-C had higher scores on the ADHD-RS and DBDS, more aggressive behavior, higher externalizing problem scores on the CBCL compared to children in the ADHD-I group and controls ($p < 0.001$). Patients with ADHD-C also had greater numbers of omission errors ($p = 0.014$), commission errors ($p = 0.005$), and higher response time variability ($p = 0.028$) than those with ADHD-I. Severe maternal stress during pregnancy, postpartum depression, and change in primary caretaker were significantly associated with both ADHD-I ($p = 0.013$, $p < 0.001$, and $p = 0.002$, respectively) and ADHD-C ($p = 0.027$, $p = 0.003$, and $p < 0.001$, respectively). Advanced maternal age at pregnancy and delayed time to first sentence were significantly associated with only ADHD-I ($p < 0.001$ and $p = 0.010$, respectively), and younger paternal age at pregnancy and rearing by a primary care taker other than the mother were significantly associated with only ADHD-C ($p = 0.004$ and $p = 0.012$, respectively). Non-regular prenatal check-ups ($p = 0.036$) and post-delivery medical illness ($p = 0.037$) were more likely to be associated with ADHD-I than ADHD-C.

Discussion: On the level of symptomatology, the ADHD-C group had more externalizing problems than did the ADHD-I group. On the level of neuropsychological function, the most prominent difference between the ADHD-C and ADHD-I groups was in the inhibition deficit (represented by number of commission errors). At the level of perinatal and developmental risk factors, our results suggest that biological environmental factors (chronic and acute problems that usually arise during the gestational and perinatal period) are more likely to be associated with ADHD-I, and psychosocial environmental factors (negative incidents or environments in the early development period) are more likely to be associated with ADHD-C.

Conclusion: This study shows that the inattentive subtype of ADHD is different from the combined subtype in many parameters including severity of symptoms, neuropsychological characteristics, and environmental risk factors.

Keywords: ADHD subtype, perinatal risk factors, neuropsychological functioning.

PS-079

Increased use of lethal methods and annual increase of suicide rates in Korean adolescents

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Objectives: Suicide rates have increased rapidly and steadily in recent years, particularly among adolescents, in South Korea. These findings are contrary to a decreasing trend of suicide mortality in adolescents of other organization for economic cooperation and development (OECD) countries. We hypothesized that the increased use of lethal methods may be related to the annual increase in suicide rates among Korean adolescents. In the present study, we examined whether the annual change in the pattern of suicide methods was related to the annual change in suicide rates among Korean adolescents. In addition, we compared suicide methods of adolescents in South Korea with those in three other OECD countries, Japan, Australia, and the United States.

Methods: We analyzed annual data for the 2000–2009 period to examine time trends in the suicide rates and suicide methods of adolescents aged 10–19 years in Korea. Data on suicide methods were obtained from the World Health Organization (WHO) mortality database.

Results: From 2000 to 2009, the suicide rate in adolescents aged 10–19 years in South Korea increased from 3.8 per 100,000 population (4.2 in males, 3.3 in females) to 6.5 per 100,000 population (6.9 in males, 6.2 in females). During this period, jumping and hanging were the two most common suicide methods for males. The proportion of hanging remained similar every year, but the proportion of jumping increased steadily, as indicated by the increase from 22.9 to 52.2 % (overall increase of 56.1 %). By contrast, the proportion of pesticide poisoning decreased from 17.6–2.4 % (overall decrease of 86.4 %), and the proportion of poisoning by other methods than pesticides decreased from 10.5 to 3.6 % (overall decrease of 65.7 %). For females, jumping was the most common suicide method from 2000 to 2009, but the proportion of hanging increased steadily, as indicated by the increase from 10.8–34.7 % (overall increase of 45.2 %). By contrast, the proportion of pesticide poisonings decreased from 14.8–1.0 % (overall decrease of 93.2 %). The preference for jumping as a suicide method is notable among Korean adolescents compared to adolescents in other countries.

Discussions: Our hypothesis, that an increased use of lethal suicide methods is reflected in the increase in suicide rates over time, is supported by the findings of the present study. The proportion of highly lethal methods, including hanging and jumping, increased over time among Korean adolescents, with a trend of an annual increase in suicide rates. The most fruitful approach to addressing the rise in jumping and hanging suicides among Korean adolescents may be through population-based initiatives to reduce the social acceptability (e.g., effective and responsible regulations for reporting suicide)and the physical availability (e.g., limiting access to or fencing off tall structures) of these methods.

Keywords: Adolescents; Suicide; Method; Korea.

PS-080

Association of oxytocin receptor and serotonergic genes with high functioning autism

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Introduction: Autism spectrum disorder (ASD) is highly heritable neurodevelopmental disorder but its aetiology is still elusive. Both the serotonin and oxytocin (OXT) systems were in focus in autism research for several reasons: (i) both systems are implicated in social behaviour and abnormal levels of both serotonin and OXT have been found in ASD patients; (ii) treatment with selective serotonin reuptake inhibitors and OXT exhibit improvements; (iii) previous association studies of serotonin transporter (SERT; SLC6A4), serotonin receptor 2A (HTR2A) and OXT receptor (OXTR) were discussed in ASD. Therefore, we aimed to elucidate the genetic association within high functioning ASD (HFA) and the gene interaction as combined analysis.

Method: We performed an association study with HFA, siblings and healthy controls. Individuals were genotyped for four SNPs on the *OXTR* gene (rs2301261, rs53576, rs2254298, rs2268494), one SNP on the *HTR2A* gene (rs6311) and the triallelic *HTTLPR* (SERT polymorphism).

Results: A nominal significant association for the carriers of the S-allele of the HTTLPR with patients diagnosed with Asperger was found (OR = 1.697 95 % CI: 1.02–2.82; p = 0.04). No association with any of the OXTR or HTR2A SNPs were found with HFA or Asperger. The gene–gene interaction revealed nominal significant association with HTTLPR and HTR2A and ASD as well as with the two OXTR SNPs (rs53576 & rs2268494) (p = 0.017 and p = 0.004, respectively).

Discussion: Since our study focused on a special population of ASD, the HFA, we found only that the HTTLPR associated with Asperger, while all other gene variations did not show any association to HFA or Asperger. These results indicate the fact that this special subpopulation of ASD probably carries a different multiple genetic load than general Autism. This should be further investigated by using a multiple genetic analysis approaches.

Keywords: Autism, Genotypes, serotonin, oxytoxin receptor.

PS-081

Attention-deficit hyperactivity disorder in childhood and adolescence is associated with reduced gray matter volume in the thalamus

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Background: Research has addressed the epidemiology and the increasing prevalence of attention deficit hyperactivity disorder (ADHD). ADHD is reportedly associated with both global and local morphological changes in the brain. Nevertheless, little is known about grey matter volumes (GMV) in patients with ADHD. An objective overall assessment using voxel-based morphometry (VBM) has yet to be reported in paediatric patients with ADHD. The aim of this study was to explore GMV abnormalities in ADHD in childhood and adolescence.

Design: Control-matched cohort study.

Method: High-resolution T1-weighted MRI datasets were obtained from 39 unmedicated ADHD subjects and 39 healthy controls of equivalent age and socioeconomic status, with no history of trauma or other developmental disorder. We also performed Catechol-O-methyltransferas (COMT) genotyping for each patient.

Results: GMV was decreased by 4.6 % in the right thalamus (p = 0.029, corrected) of ADHD subjects. Main effect of COMT genotype and GMV reduction was found in the right thalamus (met/met < val/met < val/val).

Discussion: Quantitative genetic studies (i.e., twin and adoption studies) suggest that genetic influences contribute substantially to the development of ADHD. Over the past 15 years, considerable efforts have been made to identify genes involved in the etiology of this disorder resulting in a large and often conflicting literature of candidate gene associations for ADHD. Previously, we have found decreased activation of the nucleus accumbens and thalamus in patients with ADHD during only the low monetary reward condition before MPH treatment by fMRI. Taken together, these results indicate that genetically influenced variations in dopamine transmission modulate the response of brain regions involved in anticipation and reception of rewards.

Keywords: ADHD; Catechol-*O*-methyltransferas (COMT) gene; VBM.

PS-082

Comparison of neuropsychological performances of children and adolescents with attention-deficit/hyperactivity disorder and severe mood dysregulation

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Objective: Severe mood dysregulation (SMD) is a syndrome defining people who have severe, nonepisodic irritability and hyperarousal symptoms. Distractibility, pressured speech, psychomotor agitation, racing thoughts, increased goal-directed activity are all overlapping symptoms of SMD, mania and attention-deficit/hyperactivity disorder (ADHD).

Background: We aimed to investigate the similarities and differences in neuropsychological test performances, demographic features, psychiatric co-morbidities and behavioural patterns of children and adolescents with ADHD Combined type and SMD.

Methods: Research group is composed of 134 children and adolescents (89 with ADHD Combined type, 24 with SMD and 21 healthy controls) age 7–18 years who consecutively applied to Ankara University School of Medicine Child and Adolescent Psychiatry Department and met the research criteria. Wecshler Inteligence Scale for Children-Revised (WISC-R) was applied to research groups and the groups were identified by using KSADS and KSADS-SMDM (Severe Mood Dysregulation Module). Behavioural patterns were compared by Conners Parent Rating Scale-revised long form (CPRS-

R:L) and Conners Teacher Rating Scale-revised long form (CTRS-R:L). Neuropsychological performances were compared by Trail Making Test (TMT), Stroop Test (ST), Controlled Oral Word Association Test (COWAT) and Category Naming Test (CNT).

Results: Most of the Children with SMD had two or more lifelong psychiatric diagnosis and 62.5 % of them had diagnosis of ADHD at the same time. Oppositional Defiant Disorder turned into major depressive disorder and anxiety disorders as the age grows up. In SMD group, it was understood that the children's 92 % rate of the psychiatric co-morbidities did not decrease in time. In "oppositional", "hyperactivity", "social problems", "ADHD Index", "restless impulsive", "emotional lability" and "Conners Global Index" subscales of CPRS-R: L, especially filled by mothers, SMD group's average scores were significantly higher than that of ADHD group ($p < 0.05$ per each). In TMT Section B, where joint attention, planning, set shifting and response inhibition were evaluated and in ST Section 5, where joint attention and response inhibition were evaluated, ADHD group's performances in time and error scores were lower when compared to SMD and control groups ($p < 0.05$ per each). In COWAT, where verbal fluency was evaluated, both ADHD and SMD groups showed worse performance than the control group ($p < 0.05$ per each), whereas showing similar performance with each other ($p > 0.05$ per each). There was not observed any performance differences between the groups in CNT.

Conclusions: In our study, most of the neuropsychological tests were used to evaluate the "cool" executive functions. It is emerged that there is a need for researches which "cold" and relatively "hot" executive functions are involved in a balanced manner, where healthy controls will be compared to children and adolescents with SMD, ADHD and Bipolar Disorder in a large clinical sample. These researches will provide us to diminish these hyperactive, impulsive children known as having impairments in motivational and reward-related processes, from each other more clearly. The illumination of etiologies, familial aggregation, genetic features, pathophysiology and neurocognitive profiles of these similar and frequently overlapped categoric diagnosis by new researches, will enable to improve the diagnosis and treatment of these disorders.

Keywords: Severe mood dysregulation, attention-deficit/hyperactivity disorder, neuropsychological test.

PS-083

Prevalence of human herpesvirus-6 and epstein barr virus infections in children with autistic spectrum disorders

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Introduction: Autism spectrum disorders (ASD) are behavioral syndromes with early onset, characterized by impairment in communication, social interaction and stereotyped or repetitive behaviors. Although the etiology is unknown, genetic, environmental, immunological and neurological factors may play a role in the pathogenesis. In the pathogenesis of another disease of SNC such as multiple sclerosis a role of Human Herpesvirus-6 (HHV-6) and Epstein Barr Virus (EBV) as triggers of autoimmune reactions has been hypothesized.

Aim: Aim of the present study was to evaluate the rate of HHV-6 and EBV infection in a cohort of children with ASD compared to control children.

Patients and methods: Anti-HHV-6 IgG were identified using an ELISA assay. Anti-EBV Viral capsid antigen (VCA) IgG were identified using an antibody capture chemiluminescence immunoassay (DIASORIN) and an automated instrument (LIASON). We enrolled 58 children, 30 with ASD (14 with autistic disorder and 16 with other ASD) and 28 controls. Age (5.83 years vs. 5.88; $p = 0.798$) and gender distribution (male rate = 86.7 vs. 89.3 %, $p = 0.999$) were similar between cases and controls.

Results: Prevalence of anti-HHV6 IgG was similar in cases and controls (52.1 vs. 47.9 %, $p = 0.999$). Similarly, prevalence of anti-EBV VCA IgG was not different between cases and controls (45.7 % vs. 54.3 %, $p = 0.259$). No impact of disease severity was noted on seropositivity status for the two antibodies.

Conclusions: In conclusion rates of HHV-6 and EBV infection were similar in patients with ASD compared to same-age controls. These results argue against a role of HHV-6 or EBV as casual factors in ASD.

Keywords: Autism spectrum disorder; HHV-6; EBV.

PS-084

Relationship between anxiety, anxiety sensitivity and conduct disorder symptoms in children and adolescents with attention-deficit/hyperactivity disorder (ADHD)

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Attention deficit hyperactivity disorder (ADHD) is often comorbid with anxiety disorders and previous studies observed that anxiety could have an impact on the clinical course of ADHD and comorbid disruptive behavioral disorders (conduct disorders and oppositional defiant disorders). Anxiety sensitivity (AS) is a different concept from anxiety *per se* and it is believed to represent the constitutionally based sensitivity of individuals to anxiety and anxiety symptoms. We aimed to assess the associations between anxiety, AS and symptoms of disruptive behavioral disorders (DBD) in a clinical sample of children and adolescents with ADHD. The sample consisted of 274 treatment naive children with ADHD aged 8–17 years. The severity of ADHD symptoms and comorbid DBD were assessed via parent rated Turgay DSM-IV-Based Child and Adolescent Behavioral Disorders Screening and Rating Scale (T-DSM-IV-S), Conners' parent rating scale (CPRS), and Conners' teacher rating scale (CTRS). AS and severity of anxiety symptoms of children were evaluated by self-report inventories. The association between anxiety, AS and DBD was evaluated using structural equation modeling. Analyses revealed that AS social subscale scores negatively predicted symptoms of conduct disorder (CD) reported in T-DSM-IV-S ($r = -0.32$, $p < 0.05$). On the other hand, CD symptoms positively predicted severity of anxiety ($r = 0.25$, $p < 0.01$). No direct relationships were detected between anxiety, AS andoppositional-defiant behavior scores in any scales. These results may suggest a protective effect of AS social areaon the development of conduct disorder in the presence of a diagnosis of ADHD, while the presence of symptoms of CD may be a vulnerability factor for the development of anxiety symptoms in children and adolescents with ADHD.

Keywords: ADHD, anxiety, anxiety sensitivity, conduct disorder, oppositional defiant disorder.

PS-085

Possible association of the alpha-2A-adrenergic receptor DraI polymorphism with methylphenidate response in Korean children with ADHD, combined subtype

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Introduction: Given the shortage of pharmacogenetic studies on treatment response according to subtype of attention-deficit hyperactivity disorder (ADHD), we investigated the associations between the *Msp*I and *Dra*I polymorphisms of the alpha-2A-adrenergic receptor gene (*ADRA2A*) and treatment response to methylphenidate according to subtype of ADHD.

Methods: We enrolled 115 medication-naïve children with ADHD into a open label 8-week trial of methylphenidate. The participants were genotyped and evaluated using the clinical global impression (CGI), ADHD rating scale, and continuous performance test (CPT) pre- and post-treatment.

Results: After 8 weeks of methylphenidate treatment, there was no significant association between the *Msp*I or *Dra*I genotypes and the relative frequency of CGI-I 1 or 2 status posttreatment among all subtypes combined. However, among the children with ADHD-C, a significant association was found between the relative frequency of CGI-I 1 or 2 status post-treatment and homozygosity of the C-allele of the *ADRA2A Dra*I polymorphism (OR = 4.45, $p = 0.045$)after controlling for baseline ARS score, age, gender, and mean dose (mg/kg) of methylphenidate. Among the children with ADHD-I, there was no significant association between the *Msp*I or *Dra*I genotypes and the relative frequncey of CGI-I 1 or 2 status posttreatment

Discussion: This study provides evidence for the possible role for the *Dra*I polymorphism of the *ADRA2A* in the treatment response to MPH in ADHD-C. Dysfunction of alpha-2-adrenergic receptor system, particularly in the frontal region, may cause impairments in response inhibition, which is proposed to be the core deficit in ADHD and to be uniquely linked to ADHD-C. The potential functional significance of the *Dra*I polymorphism is not well understood, but our findings suggest that this polymorphism may affect the expression and function of *ADRA2A*, *thus* prevent the function of MPH as improving inhibition deficit, particularly in the subjects with ADHD-C. Further studies should continue to elucidate treatment response according to genetic polymorphisms in homogeneous sample, such as same subtype of ADHD.

Keywords: ADRA2A; polymorphism; treatment response; subtype; methylphenidate.

Poster Session II. **Monday**.

PM-001

Audit of the admission process within a regional children and young people's inpatient service

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Aim: To devise and audit the use of a new admission checklist to improve the admission procedures within our Regional Children and Young People's Inpatient Service in the North East of England.

Background review: Earlier this year, there were a few problems which were highlighted in our admissions process, for example, the local General Practitioner who provides primary care input to the ward was often not informed about new admissions in a timely manner, leading to delays in patients being able to access the full range of primary care services available (for example, anti psychotic monitoring—bloods, ECG, physical examination including height and weight recording).

Method: For our initial audit, we identified the tasks to be completed in the first 24 h of an admission and devised a checklist (jointly between medical and nursing staff), which should be printed out and completed at the time of admission. The finalised document was emailed to ward clinical and administrative teams stating the start date of 1st of March 2012. We identified all patients admitted during the first monitoring period (1st March to 25th May 2012), and collected and analysed the data. We made some recommendations which were implemented prior to our re-audit, over the period 26th May 2012 to 5th September 2012. The checklist was revised following further consultation between medical and nursing staff and further emails were sent to raise awareness of the need for the checklist to be completed.

Results: Our audit has highlighted that there continues to be poor completion of the checklist forms by both medical and nursing staff, however this has improved over the two audit periods. Inpatient ward regular staff completed the checklist more frequently than on-call and bank staff.

Conclusion: Patients will be allocated to a regular ward doctor and key nurse, who should review the checklist within 72 h and ensure completion of any outstanding tasks. We believe that completion rates would be improved if the checklist was available electronically, as all other admission documentation is completed electronically. We are currently in discussion with senior management about the implementation of our checklist across the entire Trust Children and Young People's inpatient services. If this is agreed the checklist could be made available on our electronic record system, which would further raise awareness among admitting medical and nursing team of the need to complete the checklist, and improve the holistic care of our patients.

Keywords: Service development, admission process, holistic care, chidren and young people, inpatient.

PM-002
The features of social adaptation of orphans with mental retardation.

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Object: orphans with mental retardation, 160 people aged 6–15 years (Oktyabrskaya boarding school for orphans with mental retardation).Aim: to identify specific manifestations of disadaptation in orphans with intellectual disabilities.
Methods: Stott's card of observations, the scale of social competence A.M. Prihozhan, social networks questionnaire developed on the basis of the California questionnaire of social networks for healthy people, methods of measuring self-rating Dembo-Rubinstein, the index definition of group unity Sishora, map subjective assessments of social and psychological climate of class staff.
Results: Analysis of the results of Stott's card of observations revealed significant violations of the mechanisms of personal disadaptation (83 %). It was noted the prevalence of symptoms defining distrust to the people, rejection and anxiety in relation to adults, the tendency to depression and irritability. On the scale A.M.Prihozhan children estimate the development of independence, self-confidence, relation to the duties, the development of communication, organization below chronological age, noting the low level of social competence. In the study of self-rating was found low and middle values (75 %). It doesn't respond to stereotypes about inadequately high self-rating of children with intellectual disabilities. Assessment of social networks has revealed a low level of social network in 48 % of high school students, and the characteristics of social networks, 24 % of students the same level of social disadaptation. In the study of social and psychological climate and unity of class staff was found average level of unity (50 %); situation- negative climate with prevalence of positive characteristics (71 %), the situation-negative or unstable with prevalence negative characteristics (29 %).Conclusions. Identified a wide range of adaptation violationin orphans with mental retardation. This necessitates a special study of the factors and conditions that will ensure the success of social integration and adaptation of orphans students and graduates with mental retardation.
Keywords: Orphans, mental retardation, social adaptation.

PM-003
Mental health knowledge and attitudes in a transition year student group: a pilot survey

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Introduction: Stigma towards mental health disorders remains a significant problem in society. Numerous public awareness campaigns and to a lesser extent educational interventions have been carried out to date to help address this issue.
Objectives: To assess existing knowledge and attitudes of a sample of secondary school students regarding mental health and to test the hypothesis that a week of teaching improved mental health knowledge and attitudes.
Method: A brief questionnaire was formulated and administered to 2 small groups of Transition Year students from schools throughout Ireland who participated in a week long placement in a Psychiatric Hospital in Dublin in 2012. The input was from psychiatry and allied health professionals covering a wide range of mental health topics. It was administered prior to the first session and immediately after the last session. The input for each group in terms of topics was almost identical.
Results: In all, 24 students participated, the majority had gone to school with, had observed in passing, had a friend of the family or a relative with a mental illness, although only 21 % had had teaching on mental illness up to the intervention. The post-intervention scores demonstrated that the week had an impact on most of these views. Their attitudes to individuals with mental illness as regards employment, treatment, assistance, and recovery were encouraging, even at baseline, and all their responses improved following the sessions. There was a view that those with mental illness were somewhat reluctant to seek professional help.
Conclusions: While the results of this study are very encouraging as regards attitudes towards mental health and their response to education, far more research and interventions are needed to explore and address stigma in more detail.
Keywords: Survey; mental health; attitude; students.

PM-004
Psychiatric consultation to residential child care institutions in Tokyo Metropolis

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Background: The number of child maltreatment cases filed by the child guidance centers has been increasing rapidly in these 20 years and reached 59,862 in 2011 in Japan. About two-thirds (63.4 % in 2006) of maltreated children separated from their parents are placed in "Jido yougo shisetsu" (JYS) which are residential child care institutions. Approximately 10 % of them are placed in home based foster care. Majority of maltreated children in Japan are still placed and cared in the institutions. Behavioral problems among children placed in the institutions have come to be serious issues among mental health professionals. Japanese and local governments have been implemented various measures to prevent and treat behavioral problems among these children. Tokyo metropolitan government started to pay cost of employing part-time child psychiatrists to the JYSs in 2007. Among the 60 institutions, 36 institutions employed child psychiatrists in 2012.The purpose of this study was to explore effects and problems of employing a part-time child psychiatrist to a residential child care institutions and group homes managed by one social welfare organization.

Methods: We conducted questionnaire study in a JYS; Tokyo Katei Gakkou and its associated five group homes. Tokyo Katei Gakkou is located in Suginami City in Tokyo Metropolis. A child psychiatrist was employed in 2009. He visited the institution two times a month to examine children and advised the staffs of the institutions and group homes. The subjects of this study were 25 staffs working in the institutions and the group homes including a manager, 20 childcare staffs, 2 child psychotherapists, a dietitian and a cook. The questionnaire consisted of multiple category questions and open ended questions relating to the work of a part-time psychiatrist.

Results and conclusions: Most of the subjects answered the work of the part-time psychiatrist was helpful for them to understand behavioral problems among children and think about how to treat the problems. Half of the subjects answered the work was helpful to decide the necessity of consulting psychiatric clinics and to understand inner feelings of children. Ten subjects answered they were influenced strongly by the work of part-time psychiatrists, and thirteen subjects answered somewhat. This study suggested the positive effects of introducing part-time child psychiatrists to the child care institutions. Further research will be needed in multiple institutions employing longitudinal designs and more objective measures.

Keywords: Child maltreatment, psychiatric consultation, child care institution.

PM-005

Sexual problems in children's homes in Japan

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Introduction: Recently, child abuse has become a social problem in Japan. Abused children are commonly institutionalized in a child welfare facility. The current status of sexual problems, i.e., one of the problematic behaviors to be addressed in abused children, is less undetermined.

Purpose: This study was designed to determine the current status of sexual problems in child welfare facilities

Methods: Participants: Among the child welfare facilities located in A Prefecture, 18 facilities (29 dormitories) consented to participate in this study.

Ethical consideration: We informed individual heads of the facilities about the purpose and methods of the study, etc., in writing and requested the facilities to provide consent to participate in this study in order to conduct a survey. The names of facilities and persons responsible for entry were withheld.

Procedure: We conducted the survey employing questionnaires. We requested facilities to complete papers: (1) Face sheet: type and form of facility, and (2) Current status of sexual problems: sexual problems occurring in the facility over the past 3 years, including the frequency of the problem, number, gender, and school year of children involved, contents and situation of the problem, and action taken.

Results and discussion: Ninety-four sexual problems were reported by 20 of the 29 dormitories, in which a total of 226 children were involved. The proportion of boys involved in sexual problems was 64.2 %, and the corresponding proportion of girls was 35.8 %. The boys were prone to be abusers, whereas the girls were likely to be victims. For contents, sexual contact was the most common, followed by other behaviors (such as peeping), sexual intercourse, and sexual non-contact (such as genital exposure).Twenty point eight percent of the children involved in sexual problems had suffered sexual abuse (including suspected cases).

Conclusion: Sexual problems occurring in the facilities were demonstrated to be diverse. It was suggested that the problems involve more than one child in groups in a facility. In the future, a more detailed investigation of the relationship between sexual problems and suffering of sexual abuse or the association with affection is required.

Keywords: Sexual problems, child abuse.

PM-006

Japanese and Finnish students' responses on the kinetic school drawing: a cross-cultural comparison

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Introduction: We have been researching Japanese and Finnish children's mental health and school environments. In the present study, Japanese and Finnish students were compared using the Kinetic School Drawing (KSD; Prout & Phillips, 1974). We present our findings regarding the features of KSDs by students from both countries.

Method Participants: Japanese 4th and 8th grade students (N = 1240) and Finnish 4th and 8th grade students (N = 400).

Procedures of implementing the KSD: Students were given plain drawing paper, a pencil, and an eraser. The instruction was "Draw a school picture. Put yourself, your teacher, and more than 2 friends in the picture. Draw everyone doing something."

Procedures of scoring the KSD: First, we developed a scoring manual and scoring sheet on the basis of the scoring criteria in Prout and Celmer (1984), Andrews and Janzen (1988), and Tanaka (2009). Using the manual, scoring of the KSD was conducted by 20 people: 4 clinical psychologists and 16 graduate students majoring in clinical psychology.

Results and discussion: The analysis was conducted separately according to grades. A t-test was used for each of the variables for which a mean score could be calculated. The χ^2 test was used to compare the other items. The results for 4th graders showed that Japanese students were more likely to draw a KSD that conveyed a positive impression than were Finnish students, whose KSDs conveyed a relatively neutral impression. In terms of the face orientation of the self in 4th graders' KSD, Finnish students drew more front faces than did Japanese students while Japanese students drew more backward faces. The results for 8th graders showed that Finnish students were more likely to draw a KSD that conveyed a negative impression than were Japanese students, whose KSDs conveyed a relatively neutral impression. Further, Finnish students were more likely to place their teachers in the drawing than the Japanese were, while Japanese students presented higher numbers of their peers. The activities drawn in the KSD varied in both grades depending on the country. The findings imply that the KSD reflects students' situations during their school life. Differences in culture and school environment seem to play a role in these results.

Keywords: Kinetic school drawing (KSD), Japan, Finland.

PM-007

A Cross-cultural comparison about solutions to interpersonal conflict between Japanese and Finnish students

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Introduction: We have conducted studies to examine the mental health and school environments of Japanese and Finnish students since 2003. In this study, their solutions to interpersonal conflict as a situation they may commonly experience in school, regardless of culture, were focused on, aiming to examine how they recognize the overall significance of such methods.

Methods participants: The sample is consisted 753 Japanese and 211 Finnish students (4th- and 8th- grade students).

Questionnaire: A questionnaire sheet illustrating conflict due to different opinions in the class was used. The illustration consisted of 4 cartoons, with the following 9 methods to resolve the situation: (1) making selfish decision (non- communicative method); (2) ordering; (3) explaining the reason; (4) obeying (non-communicative method); (5) unwillingly accepting; (6) asking the reason; (7) calling the teacher; (8) using the rock-paper-scissors; and (9) collaborating.

Procedures: Students were asked how often they use the 9 methods for solving interpersonal conflict. A 4-grade response method was adopted: "Always"; "Sometimes"; "Rarely"; and "Never".

Results and discussion: The obtained data were analyzed by a principal component analysis by country and school grade. The following results regarding solutions to interpersonal conflict were obtained: (a) 4th grade students of both countries tended to base their judgments mainly on "the appropriateness of asserting themselves". (b) Japanese 8th grade students tended to consider "the appropriateness of reciprocally beneficial solutions" as a central judgment criterion; and (c) Finnish 8th grade students tended to consider "the appropriateness of asserting themselves" as a central judgment criterion. Based on these results, solutions to interpersonal conflict, which are similar during childhood, may become markedly different between Japanese and Finnish Students during adolescence, and there may be a tendency for the former to develop cooperative attitudes; this suggests a marked influence of cultural backgrounds, as such a tendency is commonly observed in Japanese people as a characteristic of their interpersonal relationships. The results of this study may also provide an important basis for understanding friendships of Japanese junior high school students, who consider that it is appropriate to harmonize with others by employing multiple methods.

Keywords: Solutions to interpersonal conflict, Japanese students, Finnish students.

PM-008

Bulgarian experience in early intervention for children with intellectual disabilities

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Unfortunately in Bulgaria currently no regulated programs for early intervention for children from 0 to 6 years old with disabilities, which creates significant problems and pushes parents to abandon their children. The well defined and organized services for early intervention are still missing in Bulgaria. Just in the recent years, few programs for early intervention were initiated mainly by the NGO's, and some strategies were developed. The paper presnets the overview of the development of early intervention programs in Bulgaria for the last 10 years. The stress is on piloting transdisciplinary model of early intervention in Vidin medical home for children with disabilities. The participants from Vidin team have acquired particular skills for an assessment and intervention with children from the target group. The assessment skills include: planning, performing, analysis, video analysis, reflexion and documentation. The intervention skills are related to: identification of strengths and weaknesses of the child; setting specific, achievable in a short period of time targets; vision for fullfilling the objectives; development of individual plan of work. For each child an individual plan for workwas developed, as well as a key worker was appointed. One of the main achievement, based on the provided training (in the frame of the project in Vidin) was the improvement of team work. Implementation of the transdisciplinary model for early intervention will give thepossibilities for comprehensive assessment ofchild development, as well as the resources in its family andproximal environment. In the process of deinstitutionalization, the piloted model in Home for Medical and Social Care for Children with Disabilities, Vidin could be used in other parts of the country. This will allow in-time for the early assessment and intervention for children, aged 0–5 with disabilities. The barriers and advantages of different models for early intervention are disscussed, and future perspectives are delineated.

Keywords: Children with disabilities, transdisciplinary model, teams, training, video-analysis, protocols.

PM-009

Development and evaluation of a mental health psychoeducational parenting programme in collaboration with parents/carers of young people with 22q11.2 deletion syndrome.

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22q11.2 deletion syndrome is a multisystem condition. Psychiatric disorders such as generalized anxiety disorder, major depression, attention deficit hyperactivity disorder are common. One in every four to five patients develop schizophrenia or other psychotic disorders. Previous studies have reported inadequate disclosure of the risk for mental illness and the evidence of stigma associated with mental illness. The Aim of our study was to develop and evaluate a psycho educational programme for parents/carers of children and adolescents with 22q11.2 deletion syndrome and to involve parents/carers in the development and evaluation of the programme. We aimed to identify the perceptions, attitudes, views, concerns and needs of parents/carers of children and adolescents about psychiatric disorders that may occur in 22Q11 deletion syndromes through the use of focus group interviews. The themes, ideas and needs identified in the focus groups are to be used to design a parent psycho educational programme which will be delivered as a pilot programme to selected participants over an 8 week period. Evaluation of the programme is to be with the use of standardized instruments administered prior to the onset of the programme, immediately afterwards and 6 months later. The outcomes we aim to achieve include the provision of education on mental illness and support to parents; a decrease in parental/caregiver stress levels; an improvement in caregiver well being and competence and improved communication within families. It is our hope that that following our study we will be able to facilitate the provision of this psycho educational parenting programme on a regular basis to this patient group as well as the development of a teaching resource that may be used in other settings where children with 22Q11 deletion may present. We also would wish to see its broader application to service development in other areas of mental health practice.

Keywords: 22q11.2 deletion, psychiatric symptoms, parent psychoeducation.

PM-010

Trajectories of maternal depressive symptoms and adolescent emotional and behavioural problems

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Objectives: To study the associations between trajectories of maternal depressive symptoms and adolescent emotional and behavioural problems

Methods: The original sample of this longitudinal study was collected in 1989–90 in the city of Tampere, Finland. It consisted of 349 consecutively selected first-time pregnant mothers (Tamminen 1990). Follow-ups took place 2 weeks and 2 and 6 months postpartum and when the children were 4–5 years, 8–9 years (Luoma et al. 2001) and 16–17 years old (Korhonen et al. 2012). Maternal depressive symptoms were examined using the Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987) at all the study stages. At the latest follow-up internalising and externalising problems of the adolescents were assessed with the Child Behavior Checklists (CBCLs) completed by the mothers and the fathers ($n = 191$ and 127, respectively), and with the Youth Self Report (YSR; Achenbach, 1991) completed by the adolescents ($n = 192$). The cut-points ≥ 64 were used to identify adolescents with clinical level problems. Group-based trajectory model was used to describe the course of maternal depressive symptoms (Nagin 2009).

Results: The model chosen to describe trajectories of maternal depressive symptoms from pregnancy to adolescence of the child included four groups: "very low", "low-stable", "high-stable" and "intermittent". The proportion of mothers in each group was 18, 53, 27 and 3 %, respectively. The overall proportions of the adolescents scoring over the cut-point in Internalizing Problems were 13 % in self-reports, 11 % in mothers reports and 4 % in fathers reports. The respective proportions for Externalizing problems were 10, 6 and 4 %.There were statistically significant associations between the trajectory of maternal depressive symptoms and adolescent Internalizing Problems. The proportions of the adolescents scoring over the cut-point in Internalizing Problems within the trajectory groups from "low" to "intermittent" were 9, 8, 25 and 33 % in the YSR ($p = 0.008$), 6, 6, 18 and 42 % in mothers' CBCL ($p = 0.004$) and 0, 9, 19 and 33 % in fathers' CBCL ($p = 0.063$). The "intermittent" group thus had the highest proportions.

Conclusion: Child development is modified by multiple positive and negative experiences. The trajectory of maternal depressive symptoms throughout development, rather than individual depressive episodes may be a more important explanatory risk factor affecting child outcome. Perhaps it is also easier for the child to adjust to stable rather than fluctuating maternal stress and depressive symptoms.

Keywords: Maternal depressive symptoms; internalising problems; externalising problems; adolescence; trajectory analysis.

PM-011

A cross-cultural comparison of self-images between Japanese and Finnish students

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Introduction: We have been researching Japanese and Finnish students' mental health and school environments by using questionnaires, Kinetic School Drawing, and the Sentence Completion Test, etc., since 2003. In our studies, some remarkable differences of mental health and school environment between Japan and Finland have been found. In this study, we focused on students' self-images, which were induced by the Image-Association Method (IAM). We reported the frequency of description terms (Hatagaki et al. 2012). The purpose of this study was to show the results of correspondence analysis, the test of significance, and cluster analysis of the textual data of self-images.

Method: Participants: The sample consisted of 713 Japanese students (4th grade: 370 students; 8th-grade: 343 students)and 400 Finnish students (4th grade: 179 students; 8th-grade: 221 students).

Image-association method: The students were asked to describe what they associated with the word "I," in turn from (1). Twenty blank lines were provided for responses, and the students were allowed to give more than 20 responses.

Ethics: The Institutional Review Board of Nagoya University approved this research.

Results and discussion: The contents of self-images brought up by IAM were summarized by the text mining software, Word Miner®. Correspondence analysis, test of significance, and cluster analysis were conducted on the textual data of self-images by using text mining methods. The results were as follows: (a) 4th grade Japanese students tended to mention their concerns, desires, and wishes for external phenomena (e.g., "I like math" and "I want to become a singer"); (b) 8th grade Japanese students tended to mention their attributes (e.g., "I belong to the basketball club" and "My blood group is A") and negative self-images (e.g., "tending to find things bothersome" and "foolish") and (c) 4th and 8th grade Finnish students tended to mention positive self-images (e.g., "happy" and "honesty"). The results of this study showed that Japanese students' self-images were remarkably different from those of their Finnish counterparts. It was suggested that students' self-images were related to culture and school environments.

Keywords: Self-image, image-association method, text mining method, Japan, Finland.

PM-012

Audit of the ADHD Clinic Wexford against NICE Guidelines (2008)

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Background: Attention deficit/hyperactivity disorder (ADHD) is one of the most common disorders in child psychiatric practice. Wexford Child and Adolescent Mental Health Service operates a dedicated multi-disciplinary ADHD clinic. Service Audit is a powerful tool in assessing and improving quality of service.

Aims: To assess the performance of the ADHD clinic in Wexford CAMHS against a recognized set of standards.

Methods: Retrospective analysis of case notes for all patients diagnosed with ADHD over the period of 1 year. Audit against standards set out in NICE guideline (2008) on ADHD with regard to:

- Quality of initial assessment.
- Non-pharmacological management.
- Initiation of pharmacological therapy.
- Follow-up/monitoring during pharmacological therapy.

Results: All 49 patients (100 %) had a comprehensive diagnostic assessment and met DSM-4 criteria for ADHD. Assessment of co-morbid conditions and parental mental health were documented in 80 and 90 % respectively.

Documented use of different non-pharmacological interventions was low (10–55 %).

Stimulant medication was prescribed in 29/49 (59 %) of patients. Documentation of patient education and physical assessment at time of initiation of pharmacotherapy was undertaken for most parameters (>80 %), but was less consistent regarding cardiac history (52 %) and cardiac examination (61 %). Monitoring of physical parameters at follow-up was documented in the majority of cases (>80 %).

Conclusions: Wexford ADHD clinic performed well in most areas when audited against standards from the NICE guideline. However, documentation rates of non-pharmacological interventions were low. The audit cannot distinguish whether this was merely a lack of documentation or indeed a lack of intervention. One possible explanation could be the paucity of available resources in this area.

Documentation of cardiac history and examination was missing too frequently, bearing in mind the potentially serious cardiac side effects of stimulant medication.

Following this audit, a new mandatory assessment form was developed for use in the case notes of all ADHD patients. We expect this will improve service provision and documentation further and facilitate future re-audit.

Keywords: ADHD, audit, stimulant medication, methylphenidate.

PM-013

Comparing QOL of students with social withdrawal tendencies in Japan and Finland

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Introduction: Social withdrawal is defined as the tendency to isolate oneself from peers. Many researchers have indicated that social withdrawal during childhood and adolescence is associated with psychological difficulties, including social anxiety, depression, low self-esteem, and loneliness. However, recent cross-cultural studies have suggested that the adjustment of social withdrawal depends on the socio-cultural environment. We have been studying students' QOL and the school environment in Japan and Finland. The purpose of this study was to compare the QOL of Japanese and Finnish students with social withdrawal tendencies.

Methods: Participants: The sample consisted of 1420 Japanese students and 398 Finnish students (4th- and 8th-grades). <u>*Questionnaires*</u>: (1) YSR (Youth Self Report; Achenbach, 1991); we used two subscales (social withdrawal and aggressive behavior). (2) The Kid-KINDL® (Ravens-Sieberer and Bullinger, 1998); consisting of six sub-scales (physical well-being, emotional well-being, self-esteem, family, friends, and school).

Definition of social withdrawal tendencies: The individual was defined as showing social withdrawal tendencies if his/her T score for social withdrawal was above 65. One-hundred-seventeen Japanese students (8.2 % of the sample) and 49 Finnish students (12.3 % of the sample) were found to be in the social withdrawal group.

Ethics: The Institutional Review Board of Nagoya University approved this research.

Results and discussion: The overall QOL scores, six sub-scales and aggressive behavior were compared by a two-way ANOVA (group × country). The Japanese students tending toward social withdrawal exhibited lower scores on overall QOL, physical well-being, emotional well-being, self-esteem, and family, but higher scores on aggressive behavior than their Finnish counterparts. Japanese students reported higher scores on the friends sub-scale than Finnish students in the control group, but those tending toward social withdrawal reported lower scores than their Finnish counterparts. The scores for school were significantly lower in the social withdrawal group than in the control group. These results suggest that Japanese students who have social withdrawal tendencies have more difficulty in their relationships with family and friends, as well as in their psychological adjustment, relative to their Finnish counterparts. We considered these cross-cultural differences in terms of the socio-cultural environment and educational systems of each country.

Keywords: Social withdrawal tendencies, QOL, Japanese students, Finnish students.

PM-014

Psychological screening of emotional and behavior disorders among children-orphans

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In connection with the vulnerability of children and adolescents orphans to emotional and behavioral disorders we committed psychological screening study in order to find out the initial pathological symptoms in the emotional, behavioral characteristics, personal development and (self) integration. The mixed gender test group for mood disorders consisted of 150 children in the age range 7—12 years old (61 persons) and 13–16 years (89). The study of the disruptive behavior disorders was held in the mixed gender group of 150 persons in the age range 13–16 years old. The study was undertaken by using the following questionnaires: Children's Depression Inventory (CDI) M. Kovacs, Mini-Mult (Prediction of standard MMPI) by Kincannon in Russian adaptation "CMOL" by Zaicev, Individually-Typological Survey of Leo Sobchik (ITS), Manifest Anxiety Scale CMAS and the projective drawing "Self"in the past, present, future (S. M. Majidova). According to CDI in 65.9 % of cases an anxiety-depressive component was diagnosed at levels above and extremely above the average level, the last range accounted for 14.8 % of the cases. The structure and spectral composition of actual character of depressive experience is defined by a negative self-esteem, identity of type "I am bad", constantly waiting for trouble, interpersonal problems. Examining the level of overt anxiety scale CMAS for children 7–12 years of age, we found that in a vast majority of tested the General level of anxiety is exceeding the norm (53 %), but the figure of the very high anxiety is rather high—22 % of the total sample. The prevalence of interpersonal problems and fears was registered. In 48 % of cases a high risk of social exclusion, disharmonic personal development, the disintegration of self with leading typological characteristics by parameters of aggression, instability, rigidity were detected. In the questionnaire CMOL the profiles included features within the scale of "paranoia, Pa2"—3 %, "schizophrenia, Sc"—17 %, "personal disorders, Pd"—16 %. In 20 % of the whole sample we diagnosed clearly outlined disruptive, violent behavior and criminal tendencies. The general trends in the personal development of orphans (according to the questionnaire CMOL and the projective drawing "Self") are the emotional immaturity, the difficulties in adoption of social norms and rules, difficulties of gender\age identification and social identity. Based on our research we differentiate by structure and degree the risk groups for emotional, behavioral and personality pathology among the orphans living in foster houses. So, we provide a differentiated approach to the prevention and psycho-corrective assistance for this category of children, aimed at improving their integration into social life.

Keywords: Orphans, emotional disorders, behavioral disorders, personal development, foster houses.

PM-015

Migration and cultural attitudes among german child and adolescent psychiatric professionals: current clinical practice and developmental perspectives

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Migration is a noticeable feature of European life. Germany is one of many nations characterized by an increasing number of children originating from families with a migration background. These children and adolescents have a right to receive culturally-sensitive diagnostic and therapeutic support within the framework of psychiatric care. Medical treatment modalities are required to accommodate such diversity of background, hence the emergence of a working party aimed at a better understanding of "intercultural child and youth psychiatry and migration". On the initiative of both the Federal Society of Child and Adolescent Psychiatry (BKJPP), which especially represents the medical specialists working in private practice, and of the Federal Working Commission of Medical Directors employed in Child and Adolescent Psychiatric Clinics (BAG), a questionnaire was constructed to identify mental health professionals' (psychiatrists') evaluation of the extent and quality of treatment for migrant families. Preliminary results of this survey—implementing descriptive statistics as well as univariate and multivariate statistical analyses—permitted an assessment of the current state of identification and treatment of migrant offspring in German child and adolescent psychiatric practices (in 100 of 750 private practices nationwide). Recommendations and concrete steps are offered which aim to promote cultural opening, and assist in health and social policy makers' decisions for improved mental health care.

Keywords: Migration, intercultual child and adolescent psychiatry, empirical investigation, culturally-sensitive diagnostic.

PM-016

Changes in family adaptability with systemic family therapy: effects of treatment with posttraumatic stress disorder in adolescents

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Background: We compared effectiveness of systemic family therapy and antidepressant pharmacotherapy by SSRI drug sertraline in therapy of adolescents with post-traumatic stress disorder and pointed out the importance of family reaction to acute trauma in children, as well as the importance of specific family factors to the possible retraumatization.
Method: The sample was comprised of three-sixth grade children whose were involved in a car accident with death of their girlfriend. All of the students were involved in a car accident with one death. Two groups were formed—one group was comprised of children who were included in 8 systemic family therapy sessions (SFT) together with their families. The second group was comprised of children who received antidepressant pharmacotherapy (SSRI) in the period of 3 months. We measured relations within their families, their organization and communication with a systematic interview of families and by using the FACES III questionnaire.

Results: Two months after the car accident, before the beginning of the systemic family therapy, all of the children were members of rigidly enmeshed family systems, considering high average scores of cohesion and low average adaptability scores. Three months after the received therapy, we established that the adaptability scores of the families were much higher and all children's were symptom free.

Conclusion: In comparation with sertraline pharmacotherapy, we found that systemic family therapy resulted to be more effective in family adaptation on trauma. Change in the functioning of the family systems was followed with and remission of PTSD symptomsand it was not accidental or simply time-dependant, but that it depended on the therapy which was applied and the increased level of family adaptability as the main risk factor of retraumatization.

Keywords: Systemic family therapy, Posttraumatic stress disorder, adolescent.

PM-017

Antenatal factors predicting trajectories of maternal depressive symptoms

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Introduction: Maternal depression is a well-known risk for child mental health. The risk, however, may vary by the severity, timing and course of maternal symptoms. It is important to identify risk factors as early as possible.

Objectives: To explore antenatal factors predicting the longitudinal trajectories of maternal depressive symptoms from pregnancy to adolescence of firstborns.

Methods: The sample was gathered in maternity health centres and comprised 349 first-time pregnant mothers (Tamminen, 1990). Maternal depressive symptoms were examined using the Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987) during pregnancy, first week after delivery, 2 and 6 months postpartum and at 4–5 years, 8–9 years (Luoma et al., 2001) and 16–17 years (Korhonen et al., 2012). Group-based trajectory modelling was used to describe the course of maternal depressive symptoms (Nagin, 2009). The pregnant mothers completed questionnaires including open-ended and multiple-choice questions on e.g. socio-demographic factors, health, social support, family of origin and partner relationship. Potential risk factors were selected for the analysis. EPDS sum scores with a cutoff >12 and EPDS anxiety subscore with a cutoff >5 (EPDS-3A; Matthey, 2008) were used as measures of antenatal depressive and anxiety symptoms. The Your Baby and the Average Baby Perception forms of the Neonatal Perception Inventory (NPI, Broussard and Hartner, 1971) were used to assess the expected problems of the own baby and babies on average. Logistic regression was used to determine the best predictors of high trajectories.

Results: The model chosen to describe the trajectories of maternal depressive symptoms included four groups: very low (VL, 18 %), low-stable (LS, 53 %), high-stable (HS, 27 %) and intermittent (IM, 3 %). The maternal antenatal factors in the HS and IM groups were compared with those in the combined VL and LS group. The HS trajectory was predicted by antenatal high EPDS score, high EPDS-3A subscore, not very good life satisfaction, perceived loneliness and higher problem expectations in the Average Baby Perception form. The IM trajectory was predicted by antenatal high EPDS score, perceived poor quality of mother's relationship with her own mother, and pregnancy being highly expected.

Conclusions: The two high-symptom trajectory groups differed from each other in antenatal predictors of the trajectories when the combined low-symptom group was used as reference. Further research is needed on the variations of developmental risks, their antecedents and effective interventions.

Keywords: Antenatal depression, postnatal depression, maternal depression, trajectories, EPDS.

PM-018

Intellectual ability and emotional maturity in children from high risk pregnancies

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Risk factors present before, during and after childbirth can have a negative impact on the overall psychophysiological development of the child, and therefore on the speech and language development.

The aim is to test intellectual abilities and emotional maturity in children from high-risk pregnancies and normal pregnancies. The examined group included N = 62 children aged from 3.6 to 4.6, and is divided into two groups: experimental group (E = 32) consisted of children from high-risk pregnancies, while the control group (P = 30) consisted of children from normal pregnancies. Methodological assessment of intellectual abilities and emotional maturity included Test- Drawing of Human Figure (Gudinaf-Haris-Mahover). The results of drawing analysis are presented in three aspects: graphomotor maturity, socio-emotional maturity and cognitive maturity. The study was conducted at the Institute for Experimental Phonetics and Speech Pathology in Belgrade.

Results analysis demonstrated that children from normal pregnancies have on average a higher mean grade on: graphomotor maturity ($p = 0.007$), socio-emotional maturity ($p = 0.009$), and cognitive maturity ($p = 0.026$) compared to children from high-risk pregnancies. The detailed results are discussed and shown in the paper. If we take into account the fact that the drawing reflects the degree of perceptual-conceptual development, and should be respected for purposes of diagnosis of intellectual development, then surely we can conclude that children from low-risk pregnancies are superior in terms of perceptual and conceptual development. Risk factors in prenatal development may affect the graphomotor, socio-emotional and cognitive maturity in early child development. Early detection and diagnostics of children from high-risk pregnancies is of a great importance since it allows early stimulation, which eliminate and prevent the problems not only in speech and language development, but the overall psychophysiological development of the child.

Keywords: Intellectual ability, emotional maturity, early diagnostics, high risk pregnancies.

PM-019

Maternal antenatal expectations and postnatal perceptions of the baby and adolescent internalising and externalising problems

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Objectives: To examine the associations of maternal antenatal expectations and postnatal perceptions of the child, maternal depressive symptoms and child gender on adolescent outcome at the age of 16–17 years.

Method: The original population-based sample of this longitudinal study consisted of 349 consecutively selected first-time pregnant mothers (Tamminen 1990). Maternal expectations and perceptions of the child were examined using the Neonatal Perception Inventory (NPI; Broussard and Hartner 1971) at the third trimester of pregnancy and 2 months postpartum. In the NPI mother is asked to assess the behaviour of her own baby and that of an average baby. The difference of these sum scores is categorised into “better than average” and “not better than average”. Maternal depressive symptoms were examined by the Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987) during pregnancy, 2 months postpartum and when the children were 16–17 years old. The cut-point ≥ 13 was used. Internalizing and Externalizing problems of the adolescents were assessed with the Child Behavior Checklist (CBCL) completed by the mothers ($n = 191$) and the Youth Self Reports (YSRs; Achenbach, 1991) completed by the adolescents ($n = 192$). The cut-point ≥ 60 was used to identify adolescents with at least sub-clinical problem level.

Results: No associations were found between adolescent outcome and maternal negative NPI difference. Mother’s more negative perceptions of her own baby postnatally, used as continuous variable, was, however, associated with more Internalizing problems in the CBCL ($p = 0.008$) and YSR ($p = 0.006$). Explanatory variables indicating pairwise associations with Internalizing problems were entered into logistic regression: adolescent’s gender, maternal depressive symptoms 2 months postnatally and concurrently, and maternal perception of her own child postnatally. Risk factors for CBCL Internalizing problems were female gender ($OR = 10.1$; $p = 0.001$), maternal more negative perceptions of the child postnatally (OR 1.2; $p = 0.015$) and maternal depressive symptoms concurrently ($OR = 4.9$; $p = 0.025$). Risk factors for YSR Internalizing problems were female gender ($OR = 2.9$; $p = 0.028$) and maternal more negative perceptions of the child postnatally ($OR = 1.2$; $p = 0.004$).

Conclusions: This study indicates that less positive maternal perceptions of the child 2 months postnatally may indicate a risk for internalizing problems in adolescence. NPI used as originally suggested may not be sensitive enough to indicate maternal negative perceptions of the child.

Keywords: Neontatal perception inventory; internalising problems; externalising problems; maternal depression; adolescent.

PM-020
Evaluation of the supported discharge service (SDS)

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Introduction: There have been many concerns raised about the negative effects of inpatient care on young people with mental health problems: loss of ability to participate in normal social, educational and occupational activities, concerns about stigma, and unwanted relationships with other inpatients. Inpatient care carries highs cost of time and money to both the healthcare system and the families involved and is not always locally available. The supported discharge service (SDS) was set up as an alternative to traditional inpatient care. It aims to provide a high level of psychiatric support in the community thus allowing earlier discharge from hospital. The SDS includes any combination of: intensive case management, home-based psychotherapy, school reintegration support, enhanced day hospital and housing support.

Objectives: To investigate clinical outcomes in a pilot study of the SDS model of care.

Methods: 20 patients (12–18 years old) were recruited from inpatient units in London between February and July 2011. There were no exclusion criteria based on diagnosis, comorbidity, gender or ethnicity. Children’s Global Assessment Scale (CGAS), Health of the Nation Outcome Scales—Child and Adolescent (HoNOSCA), Strengths and difficulties Questionnaire (SDQ), Columbia Impairment Scale (CIS) were done at entry to SDS and at discharge, or 1 year, whichever came first. Each encounter was logged: number of encounters, time spent and duration of receiving SDS.

Results: Mean time spent: 3 patients had not discharged from SDS within the 1st year. For the others 17 adolescents $= 20.7$ (SD 12.5) weeks

Readmissions: 4 readmitted: 2 of them once and 2 of them had 3 further admissions. Mean time from initial discharge to first rehospitalisation was 49.5 (SD 26.0) days. There was a significantly difference on HoNOSCA between patients who did and did not have readmissions ($p = 0.006$).

Clinical outcomes: There were significant changes in scores from baseline till end of intervention in CGAS scores ($p < 0.001$), SDQ emotional symptom scores ($p = 0.033$) and HoNOSCA scores ($p < 0.001$).

Patient satisfaction: The majority of patients and families said they were a bit or much better since the start of receiving the service and they felt that SDS had been helpful. 2 adolescents reported that the SDS had not been helpful at all.

Discussion: This study suggests that the SDS model shows promise for providing good quality clinical care in the community to adolescents who might otherwise experience longer periods of inpatient hospitalization.

Keywords: SDS, adolescent.

PM-021
Adverse life events as risk factors for serious mental disorders and inpatient treatment need among adolescents

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Background: Adverse life events have been linked to mental health problems in children and adults. Only few studies have examined the association of life events to mental health problems and inpatient treatment need in adolescents.

Aims: We analyzed whether the adolescents’ adverse life events are associated with serious mental disorders, which life events have the strongest effect and are there life events associated with specific disorders.

Methods: The subjects were 206 adolescents admitted to hospital 2006–2010 and 203 comparisons recruited from schools. The data included background information and self-administered scale (PSSS-

R). Primary ICD-10 diagnoses for treatment period were mainly based on K-SADS-pl interviews.

Results: Mean age of the inpatients was 15.1 (ages 13–17 years) and over 70 % were females, with no significant differences to the comparison group. Life event characteristics differed extensively between the inpatient and comparison groups in bivariate analyses (SES, living situation, parental death, parental psychiatric treatment and substance use problems). Patients also had witnessed domestic violence and experienced physical abuse, sexual abuse and school bullying significantly more often than comparisons. Inpatient adolescents perceived less support from family and friends than the comparison group. Parent(s) psychiatric treatment and alcohol problem, sexual abuse and school bullying were associated with serious mental disorders in multivariate analysis. Support from friends and significant others acted as protective factor. Sexual abuse and school bullying associated with every studied disorder group (psychotic, mood, anxious, eating and conduct disorders) as well as parent(s) alcohol problems except with eating disorder. Parent(s) psychiatric treatment was associated with offspring's mood disorder, eating disorder and conduct disorder. Violence in family (withnessed domestic violence or experience of physical abuse) was associated with psychotic, mood and conduct disorders.

Conclusions: Adolescents requiring treatment in psychiatric hospital have often experienced adverse life events. None of the adverse life events studied seemed to be very specific with regard to the type of disorder in this study.

Keywords: Adolescents, life events, risk factors.

PM-022

Separation anxiety in adolescence with reference to sociodemographic factors

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Bearing in mind the fact that the process of separation-individuation, although significant throughout one's life, has a specific role in adolescence the primary aim of this paper was to investigate the relationship between separation anxiety (separation from mother and father) and different sociodemographic variables (gender, age, mathematical or linguistic preference in school, and sholastic achievement). The separation from both parents was investigated over four dimensions: functional independence, attitudinal independence, emotional independence and conflictual independence.

Sample: Our research was conducted on the sample of 120 high school students. The sample contained 30 boys and 30 girls who preferred linguistics and the same number of boys and girls who had their preference in mathematics. One half of the sample was made up of subjects aged 15–17, while the second half was made up of subjects aged 17–19. The subjects were ranked according to their scholastic achievement.

Instruments: In our research we used *The Psychological Separation Inventory*(PSI)—Hoffman (1984) and a general purpose questionnaire stating gender, year of birth, school preferences.

Results: It turned out that the mean values on the three subdimensions of the separation (from mather and father)—functional independence, emotional independence and conflictual independence in the whole sample of our high school subjects were under the normative average values, while the category of attitudinal independence was shown to be slightly above the normative mean values. The results also indicate that the older group of subjects has a statistically significant percentage of attitudinal independence with reference to both parents and that it is emotionally more independent regarding their relationship with father, in other words more conflictually independent in their relationship with mother. The conflictual independence of the separation from mother is statistically significantly tied to the school preferences ($p < 0.05$). This sociodemographic variable is also closely connected with attitudinal independence from father $p < 0.01$).

We were able to draw a conclusion that pertaining to the issue of separation anxiety in adolescence there are specific features regarding the positions of mother and father. As it is, the age differences among adolescents and their professional preferences appear to have reflected the degree and nature of the separation from bothe parents.

Keywords: Separation anxiety, adolescence.

PM-023

A more efficient cost effective way of providing a child psychiatry ADHD service in times of Austerity?

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Introduction: Ongoing difficulty in marrying scare resources with ever greater clinical need continues apace in healthcare generally and in Child Psychiatry in Ireland particularly. Due to chronic underfunding and economic the service was faced in January 2012 with providing a child psychiatry service to a gross population of 70,000 people with **3** clinical staff (one consultant child and adolescent psychiatrist and 2 clinical nurse specialists-having lost two junior doctors and a psychologist.) The recommended staffing is approximately 25.

Aim: To devise a new method of working to allow a continuance of the provision of a quality child psychiatric service to the children of the catchment area despite the dearth in clinical resources.

Method: The diagnosis of all patients seen from January 2003 to January 2012 was audited. 30.4 % of all referrals were for ?ADHD. 42.3 % of all diagnoses made were of ADHD. As the biggest cohort of patients in terms of numbers was ADHD it was decided to reconfigure the ADHD clinic by instigating a primarily nurse provided ADHD service. Prior to this assessments had involved at least two clinicians; one always being a medical doctor. The 'new' ADHD service was divided into three types: new patient assessments, 'return' clinics and 'intermediate' clinics. New patient assessments were entirely carried out by one clinical nurse specialist. Detailed discussion of the case occurred at team meeting once a week. If there was a clinical need or if patients were to be started on medication, they were seen by the consultant child and adolescent psychiatrist in the 'intermediate' clinic. Once stabilised on medication patients were reviewed as clinically appropriate by the clinical nurse specialist at the 'review' clinic.

Results: From January 2011 to January 2012, there were 42 patients seen for ? ADHD. On 01/01/2012 there were 21 patients on the ADHD waiting list. From January 2012 until January 2013 38 patients were seen and assessed by the clinical nurse specialist for ?ADHD. On 1st December 2013 there were 30 patients on the ADHD waiting list. DISCUSSION: The use of a nurse lead ADHD clinic in a rural clinic with very poor resources was an efficient, cost effective way of delivering a service to the 42 % of patients seen with ADHD, freeing the consultant child and adolescent psychiatrist and the other clinical nurse specialist to focus on all the other clinical presentations. We propose the introduction of the next logical step of nurse prescribing in the future.

Keywords: ADHD, nurse provided, novel service provision.

PM-024

Using the HoNOSCA as a screening tool in eating disorders

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The Health of the nations outcome scale for children and adolescents (HoNOSCA) was launched in 1998 by the Department of health in the United Kingdom. It measures the health and social functioning of people with mental health difficulties. It has been shown to have good face validity, inter-rater reliability and is acceptable for routine clinical practice. It has also been shown to be sensitive to changes in clinical presentations. It is a routine outcome measurement tool that assesses the behaviours, impairments, symptoms and social functioning of children and adolescents with mental health problems. It is used to assess the most severe problems present during the previous 2 weeks. The HoNOSCA is clinician rated and is typically completed at initial assessment, at six weekly intervals and at discharge. It has a set of 13 scales and two optional scales. The 13 scales are added to give a total score. Eating disorders including Anorexia nervosa, Bulimia nervosa and Eating disorder not otherwise specified are a major mental health concern. This is due to the high mortality rate associated with them especially Anorexia nervosa. They form the commonest cause of psychiatric morbidity in adolescent females. The health research board in 2008 showed that eating disorders represented the second commonest diagnosis in child and adolescent psychiatric admissions. The cost to the health service in terms of managing these cases is very high. They often have a long, tortuous course with rather low remission rates. Treatment can be resource intensive because of the multidisciplinary approach that is necessary for good outcomes. Screening for eating disorders has been shown to play an important role in prevention and early detection. Our study aimed to examine the possibility of using the HoNOSCA to screen for features of eating disorders and how these compared with features elicited in the Kiddie-SADS, a structured diagnostic interview schedule. We carried out a retrospective case note review of all adolescents with Eating Disorders assessed over a 1 year period. The clinician rated HoNOSCA on the intake assessments were examined focusing on subscales 6, 7, 8, 10 and 12. The HoNOSCA scores in all the clients with a diagnosis of eating disorder were clinically significant. There was no difference between the HoNOSCA scores in male and female adolescents with eating disorders or between those with a diagnosis of anorexia nervosa vs. bulimia nervosa. The HoNOSCA appears to be a useful screening tool for Eating Disorders in adolescents.

Keywords: Screening, eating disorders, HoNOSCA.

PM-025

Audit of antipsychotic monitoring practice in a Tier 4 Regional Inpatient Unit

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Introduction: Antipsychotic medications are increasingly prescribed to children and adolescents for a range of indications. With chronic use these medications can be associated with major metabolic and neurological complications. Historically there has been little guidance available to assist monitoring in this age group. In 2011 The Canadian Alliance for Monitoring Effectiveness and Safety of Antipsychotics in Children (CAmESA) published guidelines [1] developed with the goal of promoting antipsychotic drug safety.
Aim: To assess antipsychotic monitoring practice in a Tier 4 regional Child and Adolescent inpatient unit against CAmESA guidelines [1].
Method: A retrospective case note review was performed looking at the monitoring of all (n = 21) regular prescriptions of antipsychotic medication during the month of April 2012. Data was collected and compared against CAmESA Guidelines with additional information collected including documentation of indication for antipsychotic use, recording of past medical history and completion of a consent form.
Results 17 patients were prescribed antipsychotic medication, with 4 in receipt of 2 agents, 21 prescriptions in total. 13 patients were commenced on antipsychotic medication during their admission. Results were calculated as a percentage of completed investigations against CAmESA's recommended schedule. There were no recordings in case notes of height or weight percentile, waist circumference/percentile, blood pressure percentile or fasting insulin. Percentages of completed monitoring as per CAmESA's recommended schedule, were recorded for blood testing—Fasting Glucose (53 %), Lipids (53 %) and Prolactin (33 %) and psychical monitoring -ECG (51 %), neurological examination (47 %), height (41 %) and BMI (30 %). Further observations including Weight (67 %), Blood Pressure (78 %) and LFTs (74 %) were recorded along with the indication for new prescription of antipsychotic (100 %), and past medical history (100 %).
Conclusions: Antipsychotic use is common in the Tier 4 regional inpatient unit. They are prescribed in a range of conditions. Monitoring practice is currently inconsistent. This audit has informed regional development of a monitoring schedule for each prescription of antipsychotic medication. Re-audit is to follow presentation and introduction of these changes.

Reference:

1. Pringsheim T, Panagiotopoulos C, Davidson J, and Ho J for the CAMESA guideline group. Evidence-Based Recommendations for Monitoring Safety of Second Generation Antipsychotics in Children and Youth. J Can Acad Child Adolesc Psychiatry. 2011;20 (3):225–230.

Keywords: Antipsychotic monitoring audit.

PM-026

Some results of medico-genetic consultation children with mental disorders

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It is noted in a number of population studies that up to 47 % of all cases of mental disorders (retardation) are caused by the genetic reasons. The increase in efficiency of differential diagnostics of hereditary diseases requires a broader application to medico-genetic consultations in psycho-neurology practice. Consequently, we organized the medical genetics consultations in children's regional psychiatry clinic since 2009.During the last 3 years more than 500 children with different types of mental problems were surveyed. The group of the children directed for medico-genetic consultation was presented by the following diagnostic categories: mild mental retardation—33.6 %, moderate—13.6 %, severe—3.2 %; pervasive development disorders—38.5 % and other forms (most of all borderline intellectual functioning and disruptive behavior disorder—11.1 %. Hereditary genetic pathology was diagnosed for 130 patients. A significant percent of the revealed hereditary pathology is presented in group of children with mild—37.4 %, moderate and severe—53.3 % degree of intellectual backwardness. The structure of the pathology revealed in children is of 14 % of cases with various chromosomal aberrations, and 86 % of cases—monogenic pathology. Chromosomal pathology was in most cases presented by multiple chromosomal violations, while microdeletions and derivatives of chromosomes were also diagnosed. In group of patients for whom a severe mental retardation of chromosomal pathology isn't revealed, the genetic pathology was presented by exclusively monogenic diseases. The range of the Mendelian Inheritance diseases was revealed in 112 patients and was presented by 42 nosological forms (Fragile X, Prader-Willi, Rhett, Williams-Burena, Russell-Silver, Rubinstein-Taybi, Langer-Giedion, Goldenhar, Marfan syndromes, PKU, homocystinuria, neurofibromatosis, Hunter and Sanfilippo illness et al.).The greatest part of a range is made of autosomno-dominant diseases among which sporadic cases prevailed. The second place in prevalence is taken by the X-linked hereditary diseases. The smallest part of a range was made by autosomno-recessive hereditary diseases. Among patients with the diagnosed hereditary diseases the mails prevailed (67 %). In the revealed hereditary diseases of a metabolism existence of rare forms of lizosomny diseases of accumulation among which besides MPS type II we note, for the first time in the Novosibirsk region, two cases of MPS type III. As a result, 28.1 % of the surveyed children had psycho-neurological development disorders caused by genetic pathology that confirms the importance of medico-genetic consultation in psychiatric clinic.

Keywords: Genetic factors, psychiatry, Mendelian inheritance diseases, lizosomny diseases.

PM-027

Admission patterns in an inpatient child and adolescent psychiatric (Eist Linn IP CAMHS) unit in Ireland

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Background: The large majority of child and adolescent mental health services are provided in community settings. However, some children and adolescents have problems that are so severe or complex that admission to hospital is needed for diagnosis and/or treatment. Younger children show a greater difference in pattern of mental illness from that exhibited by adults. For older adolescents this difference diminishes and ''adult type'' patterns become more common though differences are still evident. In addition due to their age and developmental stage, young people are also vulnerable to exploitation by adults and may become distressed at disturbed adult behaviour. Because of these factors and the need for young people to be treated in an environment appropriate to their age and developmental stage, specialist in-patient psychiatric units (IP units) for children or adolescents have been developed (NICAPS).The purpose of a psychiatric inpatient unit for young people is to offer inpatient assessment and management to young people with severe and/or complex psychiatric disorders and when outpatient or day-patient care has ceased to be able to meet the needs of that young person (National Inpatient Unit Forum, 2004).Available data from the UK has shown that for every 4 patients referred to inpatient units, approximately 3 were assessed and 2 admitted (NICAPS),

Objective/aims: This research aims to study the admission pattern of an CAMHS In-patient unit and examine for any association between the type of referral or referral diagnosis with the subsequent decision outcome (i.e. whether admitted or not).

Method: Data was obtained from the records of a relatively new inpatient unit (Eist Linn Unit).The study examined the referrals received by and subsequent admissions into the unit from 2009 to 2011.These referrals were analysed based on their age, gender, referral sources, location of referrals, presence or absence of social work involvement, referral diagnoses and decision outcomes(i.e. whether they were admitted or not).

Results: This study also showed that females consistently outnumbered the males both in referral and especially in the admitted cases. Of all the 96 cases admitted during the study period, 65 % of admitted cases were female. This was not entirely in keeping with the NICAP report which showed that females outnumbered males in the adolescent group but not in the younger age groups (<13 years). Across the 3 years of this study, the collected data showed that 44 % of all referrals were admitted into the unit. This is similar to the findings of the NICAP Study which found that for every four young people referred, three were assessed and two admitted.

No financial sponsorship was sought or obtained for this study.

Keywords: Admission rate/pattern, Referrals, CAMHS In-patient units.

PM-028

Bullying in 11–12-year-old preadolescents with a poor Theory of Mind

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Background: Theory of Mind (ToM) is the ability to attribute mental states to oneself and others, and to understand that others have beliefs, desires, and intentions that are different from one's own. This ability is important for healthy social relations and might be related to bullying. The present study investigates if preadolescents with a poor ToM more often are involved in bullying than others.

Methods: A preliminary, cross-sectional study of a subsample of 779 children (48 % boys) investigated as part of the 11–12-year follow-up of a birth cohort of 6090 children born in Copenhagen County (the Copenhagen Child Cohort, CCC2000). Assessments: ToM was assessed using 'The ToM Storybook', poor ToM being defined as a score in the bottom 10 %. Bullying was assessed with The Olweus Bully/Victim Questionnaire which measures physical, verbal and relational forms of bullying.

Results: Nearly a fourth (24.6 %) of the children (N = 192, 95 boys and 97 girls) were involved in bullying, either as bully (N = 35, 4.5 %), victim (N = 117, 15 %) or both (N = 40, 5 %). The mean

ToM score was 19.2 (SD 4.3 range 7–30) with a moderate internal consistency between the 24 questions (Cronbach′s alpha = 0.66). There were no significant gender differences in either bullying or ToM score. Involvement in bullying was significantly more prevalent in the group with a poor ToM (41.9 %) than in the remaining sample (22.8 %, X^2 (1, N = 779) = 13.093, $p < 0.001$). Estimates for specificity were high (93 %) but low for sensitivity (16 %).

Conclusion: Poor ToM is associated with a doubling in the rate of involvement in bullying. Due to the cross-sectional nature of the study causality cannot be assessed but the results indicate that children's' involvement in bullying may be due in part to a poor ability to correctly interpret another person's intentions or emotions.

Keywords: Theory-of-Mind Bullying.

PM-029

Range of mutations of PAH gene at patients with a classical form of the phenylketonuria, living in the Novosibirsk region

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The classical form of the phenylketonuria (PKU, MIM 261600) is the most common inborn error of amino acid metabolism which is caused by a large variety of mutations in the phenylalanine hydroxylase gene (*PAH*) and deficiency of activity of enzyme phenylalanine hydroxilase (EC 1.14.16.1), connected with this violation of an exchange of phenylalanine amino acid, education and accumulation in organism of the child of toxic metabolites for nervous system. In Western-Siberian region phenylketonuria diseases meet on the average frequency 1:6,000–1:10,000 newborns also represents an important medical and social problem. Molecular-genetic inspection of patients PKU carried out throughout 1991–2012, living in the Novosibirsk region, has shown that frequency R408W of *PAH* gene among all mutations of this gene makes 0.653. These mutation are revealed at patients, both in the homozygous form, and in a compound with other rare mutations. For the purpose of identification of a range of mutations of *PAH* gene with use of a complex of molecular-genetic technologies research of exon 5, 6, 7, 10, 11, 12 of *PAH* gene at 62 patients with PKU, among which 48.38 % had easy, 45.17 %—the moderate and 6.45 % heavy degree of mental retardation was carried out. As a result of the carried-out inspection (besides a major mutation of R408 W) in structure investigated exon 5, 6, 7, 10, 11, 12 of *PAH* gene were identification thirteen more rare mutations and their frequency characteristics—R158Q (0.0323) are established, to E221D222fsdelAG (0.0081), by R243Q (0.0081), R243X (0.0161), R252 W (0.0161), R261Q (0.0484), E280K̆ (0.0081), P281L (0.0403), S349P (0.0081), IVS10nt-11 g → a (0.0081), A403 V (0.0081), Y414C (0.0242), IVS12nt + 1 g → a (0.0323). The analysis of association of genotypes with features of a clinical picture at the surveyed patients with PKU showed communication existence between moderate and heavy forms of mental retardation and a homozygous genotype of mutations of R408 W and IVS12nt + 1 g → a and their compound homozygous genotype with mutations of R158Q, E221D222fsdelAG, R261Q of *PAH* gene. The received results testify to essential clinical and molecular heterogeneity of PKU among inhabitants of the Novosibirsk region and allowed to develop optimum algorithm of molecular and genetic diagnostics of this disease in the burdened families.

Keywords: Phenylketonuria, mutations of PAH gene, mental retardation.

PM-030

Relationship between early childhood trauma and attention deficit hyperactivity disorder

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Aims: Post traumatic stress disorder (PTSD)and attention deficit hyperactivity disorder (ADHD) at children are becoming an epidemic in our society. Early childhood trauma can have negative, life-long repercussions for children's developing brains if it is not treated properly. Many children experience trauma from emotional, physical or sexual abuse. Others are involved in traumatic events such as natural disasters, and car accidents among other things. Child abuse is generally chronic and usually the effects of this type of trauma are worse and longer lasting than from one time traumatic events. Kids who had been traumatized previously 16 years old are more likely to have attention problems, less frequently symptoms of depression and anxiety. The aim of this trial is to examine how PTSD and ADHD diagnosis are related. More specifically attempt was made to prove that a trauma is a causal factor in a significant number of ADHD cases.

Methods: Social services of Kyiv have randomized 120 adolescents in age of 14–17 years, who experienced multiple early childhood traumas. All teenagers had severe disorders of social adaptation, had not attended school, had problems with the police, and had been brought up in socially unsuccessful families. Randomization criteria meet the diagnostic criteria for DSM-IV for PTSD and ADHD. To assess symptoms associated with trauma were used structured Interview—clinician administered PTSD Scale (CAPS) and the self-report Questionnaires—Los Angeles symptom checklist (LASC). ADHD symptoms were assessed using the Conner's rating scales (CRS) to patients, parents and teachers.

Results: All randomized children have not suffer from full-blown post traumatic stress disorder (PTSD) as a result of a traumatic experience, they may have attributable symptoms that may cause a "fight or flight" response of fear in association with movements, noises, or other stimuli—but which may appear to resemble ADD/ADHD symptoms such as distractibility, inattention, aggression, increased activity, or dissociate behavior. We could not extricate experiences of chronic adverse situations during childhood, also referred to as complex trauma, from ADHD symptomatology. Randomized adolescents experience higher incidences of chronic stress, termed here as environmental trauma, and disruptions in attachment relationships.

Conclusion: It is not yet clear is trauma actually a causal factor in ADHD or are post traumatic symptoms merely mimic ADHD symptoms. Two hypotheses may help to explain this relationship: children with ADHD are at higher risk for trauma due to their impulsivity, dangerous behaviors, and parents who may have a genetic predisposition for impairment of their own impulse control; and hyper arousal induced by severe trauma and manifested by hyper vigilance and poor concentration may impair attention to create an ADHD-like syndrome. Either way it seems safe to say that trauma has played a major role in a significant number of ADHD diagnoses.

Keywords: Multiple trauma, ADHD, childhood.

PM-031

Effectiveness of the parents plus early years programme in community child care settings

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Introduction: While there is substantial evidence that parent training (PT) is effective for addressing emotional/behavioural problems in young children, only a small number of children with such problems attend programmes in mental health or clinical services. Community based preventative PT programmes may be able to reach a wider group of families and may be more of an acceptable, non-stigmatised source of support. The aim of the present study is to examine the effectiveness of a community version of the Parents Plus Early Years Programme (PPEY), when delivered within disadvantaged preschools.

Method: As part of the first phase of the Fingal Parenting Initiative, childcare staff from 23 disadvantaged preschools in North Dublin were trained to deliver the 7 week PPEY to parents of children aged 0–6 years within their community. Parents (n = 104 to date) were invited to complete pre and post measures of child strengths and difficulties (SDQ) parental stress (Parent Stress Index) and parenting satisfaction (Kansas Parenting Satisfaction Scale). Initial control group measures (n = 56 to date) were obtained from parents waiting to register for the second phase of the PPEY groups.

Results: Preliminary post treatment results (n = 78) reveal a significant reduction in parental stress, total difficulties, child conduct problems, child hyperactivity, and peer problems, while significant increases are observed for parenting satisfaction, and child pro-social behaviour. Control group data analysis and comparisons will be available shortly.

Discussion: Initial pre-treatment analysis reveals that 34.8 % of the sample scored within the *abnormal* or borderline range for total difficulties as measured by the SDQ, while 45.5 % of the sample scored within the abnormal range for conduct disorders, suggesting that the centres were successful in engaging parents experiencing considerable difficulties.

Conclusion: These early findings suggest that the delivery of the PPEY community course in childcare settings has the potential to be a effective in reducing child behavioural problems and parental stress. Such a result has implications for making parent training more accessible in the community and thus reducing the demands on specialist child and adolescent mental health services.

Keywords: Parent training, parents plus early years programme, early childhood behavioural problems.

PM-032

Schizophrenia patients with a history of childhood trauma have a pro-inflammatory phenotype

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Background: Increasing evidence indicates thatchildhood trauma is a risk factor for schizophrenia. It is also well documented that schizophrenia patients have a pro-inflammatory phenotype. We tested the hypothesis that the pro-inflammatory phenotype in schizophrenia is associated with childhood trauma, and that patients without a history of such trauma have a similar immune profile to healthy controls.

Methods: We recruited 40 adult schizophrenia patients and 40 adult controls, all of whom completed the childhood trauma questionnaire. This is an 8-item, self report questionnaire that identifies the presence or absence of childhood traumatic events. Using ELISA techniques, we measured peripheral blood levels of pro-inflammatory cytokines IL-1β, IL-6, IL-8 and TNF-α. These immune parameters were compared in adult schizophrenia patients with a history of childhood trauma, adult schizophrenia patients without a history of childhood trauma and also healthy adult controls.

Results: Schizophrenia patients with a positive history of childhood trauma had higher levels of IL-6 and TNF-α than both patients without trauma and healthy controls. TNF-α levels correlated with the extent of the trauma. Patients with no trauma had similar immune profiles to controls.

Conclusion: Childhood trauma drives changes, possibly epigenetic, which generate a pro-inflammatory phenotype.

Keywords: Schizophrenia, inflammation, childhood trauma.

PM-033

Parenting stress among multi-cultural families with female marriage immigrants in Korea: an parenting program advocacy

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Purpose: We investigate the features for parenting stress and its associated factors among multi-cultural families with female marriage immigrants in Korea.

Methods: 84 couples with female marriage immigrants were interviewed through two structured questionnaires developed for wife and husband each during 4 weeks of November 2012 in Jeju Province, Korea. We also evaluated wife's mental health by Short–form 36-item Health Survey, Genral Health Questionnaire and BDI. All of the wives were beneficiaries from a government funding acculturation program, and regarded as the deprived. Comparison of the features for parenting stress between wife and husband was conducted. A multiple logistic regression model was used to evaluate factors affecting female marriage immigrants' parenting stress.

Results: Their home countries were Vietnam (50.6 %), Philippines (23.0 %), Nepal (10.3 %), China (8.0 %), Cambodia (4.6 %) and others (3.5 %). The duration of immigration was under 3 years among 75 %. Mothers reported more stress than fathers. The reported parenting stress level between every pair of couples did not correlated(Pearson correlation test; $r = 0.25$, P value = 0.07). We found that variable of the number of toddlers, under the age of 5, alone had a significant independent association with female marriage immigrants' parenting stress (OR = 2.9; 95 % CI = 0.99–8.68; P value = 0.05); Various factors such as age difference, wife's education level, strong support from husband, wife's depression, wife's monthly disposable money, family economic status did not show a significant association.

Conclusion: Parenting programs with special attention to toddlers, under the age of 5 would be helpful for female marriage immigrants in Jeju, Korea by reducing their emotional strain, lessening the tendency toward negative effect on the parent–child relationship, and then fostering positive impact on developing the emotional and social competence of children living in multi-cultural families.

Keywords: Female marriage immigrants, parenting stress, parenting program advocacy.

PM-034

Female juvenile offending: characteristics of offences in early onset vs. late onset female offenders over 30 years

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Introduction: There is a large body of research on juvenile offending in males. Research on females is growing, but questions remain around offending patterns in females, and whether differences between early and late onset offenders mirror those found in males. The aim of the study was to compare the 30-year criminal career characteristics (e.g. type, frequency, severity and versatility of offending) of early and late onset female juvenile offenders.

Methods: An anonymised cohort of female juvenile offenders from Jan-Mar 1980 was extracted from the Offenders Index together with their subsequent 30-year history of offending. The sample was categorised into Early and Late Onset according to age at first conviction: Early Onset (age 10–12y) (n = 341), vs. Late Onset (age 15–17y, (n = 1388).The criminal career of each individual was divided into four age periods (10–17 years old; 18–25 years old; 26–33 years old; 34+ years old) and within each age period 12 different types of offences were recorded. The sub-groups were compared according to frequency, type, diversity and severity of offences.

Results: The results show that the Early Females have a higher number of total offences per person, higher diversity scores, and higher severity weighted Frequency and Diversity scores. However, regarding offence types Early Onset Females committed a greater number of each type of offence, but there were no significant group differences in the proportion of individuals committing each type of offence.

Discussion and conclusion: The results suggest Early Onset Female juvenile offenders present a more severe and versatile criminal career than Late Onset Female offenders which is consistent with findings among juvenile male offenders. Females with early onset offending constitute a high-risk group with worse outcomes. Further research on juvenile females is required to understand specific pathways into and out of persistent offending.

Keywords: Juvenile offenders; female offending; criminal career.

PM-035

Holding Tight®: A nationwide treatment system for substance-abusing pregnant women and families with infants in Finland

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The Holding Tight treatment system is comprised of mother and child homes and open care units that specialise in treating substance abuse. The objectives are the following: to prevent and minimise foetal abnormalities by supporting mothers to stay sober during pregnancy, to improve the quality of early interaction between parent and baby, to support the healthy development of the baby, to help the parent master everyday skills that will help her thrive with her baby and, finally, to participate in the development of social services and health care to meet the needs of substance-abusing families with infants. The treatment system aims at providing the clients with a positive and supporting relationship with the professionals and an environment that holds on to them. The Federation of Mother and Child Homes and Shelters has been developing the treatment system since 1998. Theoretically, the Holding Tight system builds on attachment theory and the theory of mentalising. The focus is on parents' ability to be reflective about their child's emotions and needs and recognise the child as a separate being. Mentalising makes parents more sensitive towards the child enhancing positive interaction and the development of secure attachment. Parents with addiction issues often have a traumatic childhood, which reduces their ability to mentalise while substance abuse further reduces one's ability to be reflective about emotions. The Holding Tight treatment system has resulted in other closely linked development projects at the Federation of Mother and Child Homes and Shelters. Firstly, since 2011 there has been a collaborative project with two other NGOs that aims at developing child centred working methods in the area of parental substance abuse in one Finnish municipality. The project builds on the International Child Development Programme (ICDP), which is in use in over 30 countries and aims at improving adults' ability to encounter children in an encouraging, respectful and sensitive way. Secondly, in 2012 another development project was started in one Finnish municipality with the aim of developing maternity clinic professionals' skills in identifying and reducing parents' substance use during pregnancy, improving their abilities in reflective parenting and helping them bond with the child already during pregnancy. The project trains professionals in mentalising theory and working methods as well as gives them the opportunity to learn through practice through working as a pair with a professional who has vast experience in the area of reflective work with substance-abusing parents.

Keywords: Treatment, substance abuse, pregnancy, infants, mentalising theory.

PM-036

Transcutural study: prevalence and risk factors of substance misuse on a population of foreing non accompanied minors

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Introduction: Thestudy will assess the risk factors and protective of psychoactive substance misuse in a population of Maghreb immigrant adolescents, foreign non accompanied minors (FNAM), in juvenile wards of Catalonia. The research hypothesis is thatthe presence of psychiatric psychopatholy, personality traits related to impulsivity, stressors related to migration, and several sociodemographic factors such as family dysfunction, poor schooling in the country of origin, etc., are related to psychotropic substance misuse.

Risk factors: Acculturative stress, impulsiveness, mental health/psychopathology, family dysfunction, uprooting (social and family), etc.

Protective Factors: social support network, social stigma of substance misuse, etc.

Methods and objectives of the study:

1. Substance misuse prevalence and pattern, misuse predictors/risk factors/protective factors.

Determine the prevalence andpattern of substance misuse (abuse and dependence) in a sample of FNAM aged 12 to 17 years and hosted injuvenile facilities in Catalonia.

Detect those predictor variables (demographic, psychopathological and social) associated with the substance misuse.

Specific objectives of the study:

1. Study the prevalence of substance abuse (tobacco, alcohol, cocaine, amphetamines, benzodiazepines, hallucinogens, solvents/glue/inhalants, MDMA and heroin) pre and post migration.
2. Study the presence of psychiatric disorders, ADHD, personality traits and impulsivity as risk factors associated with substance misuse.
3. Study the temporal distribution often used for each of the substances.
4. Identify the risk factors and/or protective socio-demographic variables such as place of origin, idiomatic level, family and social network, hosting conditions, family dysfunction, acculturative stress and migration experience.

Research hypothesis/results:

1. The presence of psychiatric illness is a risk factor for substance misuse in the studied population.
2. High impulsivitylevels, sensation seekingtraits and ADHD is associated with a higher risk for substance misuse.
3. The coexistence ofhigh impulsivity levels (above average expected for age and origin group), presence of psychopathology and unfavorable sociodemographicconditions predict greater severity in substance misuse.
4. Low idiomatic level, a reducedfamily and social network, difficulties in relationships during youth custody, the family dysfunction in origin, acculturative stress and complications in the migration process are associated with increased risk for substance misuse.

Keywords: Foreign non accompanied minors (FNAM), substance misuse, acculturative stress, impulsiveness, migration experience.

PM-037

Impact of family burden on economic and financial problems of families with children suffering from schizophrenic spectrum disorders

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Background: High family burdenof children with schizophrenic spectrum disordersis associated with multiple negative influences on social functioning of that families and the caregivers' and parents' ability to be engaged in effective problem-solving strategies in managing their children to enhance positive outcomes. But there hasn't been enough studies looking at the correlation between economic problems and levels of family burden.

Methods: Parents (mothers) of 140 children (8–17 years) with schizophrenic spectrum disorders participated in this study. CGSQ and ECI scales were used to assess family burden (including economic and financial problems).

Results: Families with children with schizophrenic spectrum disorders reported high levels of family burden—13.44 ± 0.9 points. Objective burden varies from 3.95 points to 4.68 points (4.25 ± 0.4 points on average). Subscale economic and financial problems in the objective burden domain has one of the highest scores compared to other subscales of the domain. The majority of mothers admitted having economic and financial difficulties (4.31 ± 0.3 points) caused by their child's disorder. High levels of objective family burden is associated with increasing financial and economic difficulties (direct correlation $r = 0.479$, $P = 0.004$) 0.45 % of mothers had to leave work to be with their children or find another, less paid one. Nearly in 30 % of cases parents split up, fathers often leave families without providing financial support. Moreover most of mothers have reported increased spendings on child's treatment and rehabilitation, depending on duration of illness.

Conclusions: High levels of objective family burden are linked with financialproblems of families with children with schizophrenic spectrum disordersWhile psychosocial therapy doesn't directly influence family's financial situation, the use of psychosocial treatments for parents aimed at easing family burden is proved to be efficient, it allows parents to enhance their ability to cope with problems and engages parents in effective problem-solving strategies of managing their children.

Keywords: Children, adolescents, family burden, economic and financial problems, schizophrenic spectrum disorders.

PM-038

Family burden of children with schizophrenic spectrum disorders

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Background: Family burden has significant negative impact on social functioning of children with schizophrenic spectrum disorders. Given that clinicians often underestimate the influence of psychosocial factors on long–term outcomes, this study is set out to assess family burden in order to develop interventions to lift the family burden that would address effective multimodal management of multiple mental health needs of this children.

Methods: Mothers of 140 children (8–17 years) diagnosed with schizophrenic spectrum disorders were recruited into this study. Systematic assessment with CGSQ, ECI, CGAS, PANSS was used to identify level and main domains of family burden.

Results: High levels of family burden, both objective and subjective with no statistically significant dependence of family burden on the age of a child and parents, the age of the onset of the disease and its severity were found, and an increasing trend of levels of burden was registered in families with children in early stages of disorders.85.7 % of caregivers reported great distress in at least one burden domain, with the highest results noted in following subjective burden subdomains: worry, concern, embarrassment and guilt. High family burden is associated with lower CGAS level of social functioning of children with schizophrenic spectrum disorders (negative correlation, $r = -0.463$, $P = 0.005$) and not is directly related to the severity by PANSS scale.

Conclusions: Family burden is considered as one of the key integrative parameter in managing children with schizophrenic spectrum disorders. Thus, family burden should be regarded as an independent "target" of psychosocial interventions with parents in the context of developing individualized psychosocial rehabilitation programmes aimed at enhancing social functioning, quality of life and positive outcomes of children. Further controlled studies of psychosocial interventions directly targeting family burden are required to strengthen the evidence base for comprehensive treatment.

Keywords: Children, adolescents, family burden, schizophrenic spectrum disorders.

PM-039
Prenatal and perinatal risk factors in autism spectrum disorders and their association on autistic symptoms severity

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Background: Prenatal and perinatal factors have been reported to increase the risk of autism spectrum disorders (ASD). How these factors impact the clinical symptom is largely unknown. This study compared the frequency of prenatal and perinatal factors between individuals with ASD and their unaffected siblings, and to further investigate the association of these risk factors with autistic symptoms severity.

Methods: We recruited 317 probands with ASD (mean age 10.7 ± 3.5 years; males 91.5 %) and 275 siblings (mean age 11.8 ± 4.6 years; males 47.6 %; affected, $n = 15$). The diagnoses of autism and Asperger's disorder were based on DSM-IV criteria and confirmed by the Chinese Autism Diagnostic Interview-Revised. The mothers were interviewed for the pregnancy and birth history and reported on the social responsive scale (SRS) and social-communication questionnaire (SCQ) for autistic symptoms. The frequency of prenatal and perinatal factors between ASD youths ($n = 332$) and unaffected siblings ($n = 258$) were compared by using the Chi square statistics. A generalized linear model was employed to exam the association between the risk factors and autistic symptom severity in 317 ASD probands.

Results: Our results showed that the ASD group had more perinatal hypoxia, physical anomaly, and more frequent needs of acute resuscitation at birth, and phototherapy than unaffected siblings ($p < 0.05$). There was also a trend for more preeclampsia ($p = 0.071$), prenatal influenza infection ($p = 0.075$), and neonatal jaundice ($p = 0.059$). There was no difference regarding prematurity, placenta previa, oligo- or polyhydramnios, etc. Several factors were associated with more severe autistic symptoms in the ASD group, such as preeclampsia, placenta previa, and the abnormal amount of amniotic fluid. Specifically, maternal preeclampsia was associated with more social deficits assessed by the SRS and SCQ, whereas oligohydramnios was associated with more stereotyped behaviors assessed by the ADI-R, SRS and SCQ consistently.

Discussion: Our findings imply that several prenatal and perinatal factors occurred in individuals with ASD more frequently than in their unaffected siblings. Some factors were associated with more severe autistic symptoms, particularly the social deficits and stereotyped behaviors. Whether these factors moderate autistic psychopathology during the sensitive period of CNS development, or they are simply the associated presentations of syndromatic ASD warrants further investigation.

Keywords: Autism, prenatal factor, perinatal factor, symptom.

PM-040
Analysis of mental health in immigrants attended at CAMHS

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Introduction: Worldwide, people are moving across borders in increasing numbers for political, humanitarian, economic or environmental reasons. Until the 70's many Spaniards migrated abroad, but since then Spain has turned into a host country with a large immigrant population. To maintain a sufficient welfare standard for the immigrant population in Spain will become a considerable challenge given the country's current economic context characterised by extraordinary high unemployment and deep recession. It is important to closely look into the health of this immigrant population in order to know which are the mental complaints that bring them to consultation, their severity, which factors intervene in an appropriate follow up or treatment interruptions, what are the pathways by which they reach mental health services, and thus anticipate and contribute to improving the health of this population. The lack of knowledge about the procedures required to ask for help, the communication difficulties and the cultural clash constitute only some of the reasons for insufficient detection of mental pathology, a delay in initiating treatment and consequently a deeper suffering on the part of the patients and their families. The health system must take into account this new social reality. So not to undermine the principle of equal access and, in the end, the rights of the person. Therefore, it becomes necessary that professionals have the information necessary to respond appropriately to these health demands.

Objectives: (1) Describe the sociodemographic and clinical features which define the immigrant patients between the ages of 5 and 18 being treated in our Child and Adolescent Mental Health Service (CAMHS). (2). Determine the sources of referral. (3) Reflect the clinical severity of presenting pathology. (4) Determine the scale of the treatments on course, discharges and interruptions of treatment.

Method: Observational descriptive study of immigrant patients on follow up at Mollet Child and Adolescent Mental Health Service (Barcelona) using sociodemographic, clinical and diagnostic variables, using descriptive statistics (Chi^2, Student's T and SPSS 11.5)

Results and conclusions: Only 4.4 % of all patients attended at CAMHS are immigrants. The main sources of referrals are Paediatricians (46 %) and Educational Psychologists (29 %). The number of males attended is 3 times higher than females. We highlight the severity of the diagnoses and their functional impact (ASD:20 %, Conduct Disorder: 17 %), and in 30 % of cases there was identified comorbidity. There were not significant differences when the sample was stratified by age.

Keywords: Immigration, mental Health.

PM-041
Investigation of the usefulness of a screening test for the understanding of family environment of preschool children to prevent child abuse

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Background: The preventive measures against child abuse by Hokkaido Prefecture were initiated in 2010. These measures were planned to detect children with the higher risk of child abuse by assessing poor family environment, signs of inadequate rearing or parental problems.

Aim: To make a useful screening tool to prevent child abuse, we developed a screening test for the understanding of family environment of preschool children which could be used at nursery schools and kindergartens.
Subject: The subjects were 74 of 153 preschool children in A city in Hokkaido prefecture of Japan. Thirty-eight of them (51.4 %) were at the age of five and over
Methods: This study used a screening test with 31 items in 5 categories; for the assessment of children, (1) physical, (2) emotional, (3) behavioral problems, and for the assessment of parents, (4) parents-child relationship, (5) parental problems were evaluated.
Results: The mean age of the subjects was 73 ± 5.0 months old. The mean of the positive items were 4.1 ± 3.2 ranging from 1 to 17. The rate of the positive answers on the screening test was as follows; filth 36.8 %, physical signs 39.5 %, emotional symptoms 36.8 %, tantrum 36.8 %, clinging 42.1 %, inappropriate behaviors 78.9 %, problems of child- child-rearing 31.6 %, problems of child-parent relationship 55.3 %, lapse of appointments 31.6 %, and parental problems 44.7 %. Sixteen preschool children (42.1 %) had mental health problems.
Conclusions: Japan has an established health checkup system for children until at the age of three. However, after the checkup at 3-years old, we do not have occasions to evaluate the risks of child abuse in preschool children. The screening test used in this study would be useful to access the environmental factors that could be related to the child abuse.
Acknowledgments: This study was supported by the Nayoro Health center and the Nayoro Preschool in Nayoro City, Japan.
Keywords: Preschool children, prevention, child abuse.

PM-042

Associations between subclinical psychotic experiences and coping style in an adolescent sample from the general population

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Background: Psychotic experiences are hypothesised to exist on an extended psychosis phenotype. Coping is one of the factors that may play a role in the movement of an individual to more severe stages along the continuum. There is evidence that greater emotion-oriented (non-adaptive) coping, and less task-oriented (adaptive) coping, are associated with higher levels of subclinical positive psychotic experiences. To our knowledge, no study has investigated the association between coping and subclinical negative psychotic experiences.
Method: 302 adolescents (175 females; 127 males) were recruited from schools in the Birmingham area of the United Kingdom. The mean age was 16.05 (SD 0.74). Positive and negative subclinical psychotic experiences were assessed using the community assessment of psychic experiences (CAPE). Coping styles were measured on the coping inventory for stressful situations (CISS), which assesses Task-, Emotion- and Avoidance-oriented coping.
Results: Females showed higher levels of subclinical psychotic experiences than males. They also had higher levels of emtion-oriented coping than males, but not task- or avoidance-oriented coping. Given these differences, linear regression analyses were conducted separately by gender. For both females and males, higher use of emotion-oriented coping was associated with higher positive subclinical experiences (females, $\beta = 0.55$, $p < 0.001$; males, $\beta = 0.56$, $p < 0.001$). Task and avoidance-oriented coping were not associated with the presence of sublcinical positive experiences. Negative subclinical experiences were significantly associated with emotion-oriented coping for both females ($\beta = 0.55$, $p < 0.001$) and males ($\beta = 0.66$, $p < 0.001$), but there was no significant association for task- and avoidance-oriented coping.
Conclusions: We found an association between negative subclinical experiences and emotion-oriented coping in the general population, similar to that which exists for positive subclinical experiences. Since coping style is modifiable, possibilities exist for prevention and early intervention. Given that negative subclinical psychotic experiences have been shown to precede positive ones, teaching more adaptive and effective coping strategies to school-aged adolescents may assist in delaying or ameliorating the onset of positive psychotic experiences and progression along the continuum to more severe disorder.
Keywords: Subclinical psychotic experiences, coping, adolescent, psychosis.

PM-043

Adverse life events as risk factors for behavioral and emotional problems in a seven-year follow up of a population-based child cohort

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Background and aim: The aim of the study was to identify risk factors for significant changes in emotional and behavioral problem load in a community-based cohort of Danish children followed from ages 9 to 16 years. The risk factors being the following: gender, level of intelligence measured at age 9 years (IQ low <80/average/high >120), being the firstborn in the family, young father- or motherhood, family breakup, death of a parent, parents using services from privately practicing psychologist or psychiatrist, parents in contact with hospital-based psychiatry, parent downward change in socioeconomic status, upward change in level of education, and parent treated for cancer.
Methods and materials: Data on emotional and behavioral problems was obtained from parents filling in the child behavior checklist (CBCL) when the child was 8–9 and again when 15 years old. At baseline in 1999 at total of 373 (49.7 % of the invited population) responded. In 2006, when the children were 15 years old, the CBCL was mailed to the 373 responders and 321 (86.1 %) responded this second survey. Data on risk factors was drawn from Danish registers. Analysis used was logistic regression for crude and adjusted change.
Results: Parental divorce significantly raised the odds ratio of an increase in emotional and behavioral problems; furthermore the risk of deterioration in problem behavior rose significantly with increasing number of adverse life events. By dividing the children into 4 groups based on the pathway in problem load (increasers, decreasers, high persisters and low persisters), we found that children with a consistently high level of behavioral problems also had the highest number of adverse life events compared to any other group.
Conclusions: Family breakup was found to be significant risk factors. This finding is similar to previous studies. The fact that no other risk factor proved to be of significance might be due to lack of power in the study. Children experiencing high levels of adverse life events are at high risk of chronic problem behavior. Thus these risk factors should be assessed in daily clinical practice.
Keywords: Risk factors, problem behavior, CBCL, follow-up.

PM-044

Associations between subclinical psychotic experiences, affective symptoms, stress and daily hassles in an adolescent sample from the general population

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Background: Stress and affective dysregulation appear to be associated with psychotic experiences along the full spectrum of the extended psychosis phenotype. However, the exact relationship between subclinical psychotic experiences, stress and affective disturbances remains unclear. The present study investigated the relative contribution of affective dysregulation, stress and daily hassles to levels of subclinical positive psychotic experiences in adolescents from the general population.

Method: 302 adolescents (175 females; 127 males) were recruited from schools in the Birmingham area of the United Kingdom. The mean age was 16.05 (SD 0.74). Positive subclinical psychotic experiences were assessed community assessment of psychic experiences (CAPE). Depression and anxiety were assessed with the depression, anxiety and stress scale (DASS). The Inventory of High School Students Recent Life Experiences assessed daily hassles and stress was measured on the perceived stress scale (PSS).

Results: Females showed higher levels of positive subclinical psychotic experiences, depression, anxiety, stress and daily hassles than males. Given these differences, linear regression analyses were conducted separately by gender. For females, higher subclinical psychotic experiences were associated with greater levels of stress ($\beta = 0.24$, $p = 0.01$) and anxiety ($\beta = 0.41$, $p < 0.001$). For males, higher subclinical psychotic experiences were associated with higher anxiety ($\beta = 0.34$, $p = 0.006$) and more daily hassles ($\beta = 0.36$, $p = 01$). Depression was not signifciantly associated with positive subclinical psychotic experiences for either gender.

Conclusions: We found that anxiety showed the strongest association with subclinical psychotic experiences for both males and females. However, while perceived stress was assocated with psychotic experiences in females, daily hassles was more strongly associated in males. It is likely that our stress and daily hassles scales are tapping into a similar construct of "daily life stressors" but these are perceived in a different way by adolescent males and females.

Keywords: Subclinical psychotic experiences, affective symptoms, stress, daily hassles, psychosis.

PM-045

Characterising comorbidity between ADHD and ASD: a cognitive-electrophysiological approach

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There is substantial behavioural and genetic overlap between attention deficit hyperactivity disorder (ADHD) and autism spectrum disorder (ASD), two common neurodevelopmental disorders that until recently have been treated as separate research fields. In particular both disorders demonstrate attentional and social cognitive deficits, but these have not been directly compared with concurrent electrophysiological recording that is able to capture these fast occurring cognitive events. In order to identify shared and distinct neural markers, systematically assessed groups of 8–13 year old children with ASD (n = 19), ADHD (n = 18), comorbid ASD + ADHD (n = 29) and typically developing (TD) controls (n = 26) were compared on performance and underlying brain responses during a cued continuous performance task (CPT- OX) and a face processing task. Results indicate that event-related potential (ERP) indices of response inhibition (NoGo-P3) may be altered specifically in children with ADHD, whereas children with ASD show reduced conflict monitoring (Go vs. NoGo-N2) during the CPT-OX. In addition, children with ASD showed atypical lateralisation of the face-sensitive N170 component and altered gaze processing, while children with ADHD showed similar patterns to TD children during the face processing task. Across these analyses, while it was possible to dissociate ASD-only and ADHD-only on their basis of cognitive-electrophysiological parameters, ASD + ADHD largely show the unique deficits of both disorders, thus supporting an additive co-occurrence. Disentangling phenotypic variation using neurophysiological markers is likely to aid the identification of susceptibility genes and other causal mechanisms underlying the complex aetiology of ADHD and ASD. In addition, elucidating the basis of comorbidity can help to refine classification systems and enhance the assessment of complex cases for more specific treatment strategies.

Keywords: ADHD, ASD, attention, comorbidity, event-related potential (ERP), face processing, inhibition.

PM-046

The characteristics of adolescents admitted to inpatient unit in a mental health hospital

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Aim: The aim of the present study was to evaluate the characteristics of adolescents accessing adolescent-young adult inpatient unit in a mental health hospital.

Material and method: Data were obtained from inpatient unit files. Files of patients under 18 years of age were evaluated over a 12 month period retrospectively. Subjects were evaluated by number of admissions to inpatient unit within a year, age, gender, school status, family structure, reasons for admission, source of referral, length of stay on the unit, DSM-IV psychiatric diagnosis, treatment in inpatient unit, history of outpatient clinic application and previous regular treatment, previous psychiatric inpatient treatment and psychiatric family history. Data except for length of stay on the unit reflected only the first psychiatric admission for each youth within the year.

Results: Completed data were available for 289 admissions in 222 patients (13–17 years old); 128 (57.6 %) were female and 185 (83.3 %) patients admitted only once in a year. Mean age was 16.35 years (SD 0.84). Ninety patients (42.7 %) were still at school and 62.1 % (n = 131)had the nuclearor extendedfamily. While the most common reason for admission was risk of suisidality (62.6; n = 132), 75.8 of patients (n = 160) were referred from psychiatric emergency department. The mean length of stay of all admissions on the unit was 6.17 days (SD 5.00). Most common diagnoses were conduct disorder (38.4 %), adjustment disorder or acute stress reactions (19.9 %) and mood disorder (11.4 %) respectively. Both oral and intramuscular treatment were applied to 38 patients (18.0 %). While prior outpatient clinic application for mental problems was reported by 143 (67.3 %) patients, only 35.1 % (n = 74) had previous regular treatment. Twenty nine patients (13.7 %) were previously admitted to an inpatient unit. In this study, 40.3 % (n = 85) had no family history of mental illness.

Discussion: We discussed our findings with the current literature. This study indicates that adolescent inpatient unit in mental health hospital may have an important role in the treatment of acute crisis in Turkey.

Keywords: Adolescent, inpatient, characteristics.

PM-047

A cross-sectional study of the health and social costs of attention deficit hyperactivity disorder (ADHD) in Spain: study design

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Background: The estimated worldwide prevalence of ADHD is 5.3 % in childhood and 4.4 % in adults. The management of ADHD and its consequences involve high healthcare and social resource use[1]. The overall costs attributed to ADHD in Spainare unknown.

Objectives: (1) To describe the direct, indirect, and societal costs of ADHD management; (2) to assess the comparative costs of treating drug responders vs. non-responders in patients < 18 years.

Methods: Study design is a cross-sectional (1 year retrospective follow up) from a health system (direct costs only) and social (direct and indirect costs) perspective, using concurrent and retrospective data. Patients will be recruited consecutively from 15 participating centres in Spain. Patients aged ≥6 years with an IQ >70 and a confirmed diagnosis of ADHD will be included after informed consent from the patient or guardian. Any patients with a significant organic disease (excluding asthma), other neurological disorder, severe psychiatric disorder (psychosis, bipolar disorder or pervasive developmental disorder) or depression, or participants in prior clinical trials are not eligible. Treatment responders are defined as those presenting with an ADHD-RS score lower than 18 for ≥ 3 months. The sample size needed for objective 2 was calculated to be 147 patients per group ($\alpha = 0.05$, $\beta = 0.2$) to detect a difference of 2,000€ between the cost of responders and non-responders (e.g., 12,000€ vs. 14,000€), and assuming a standard deviation of 5,000€ and 7,000€ respectively. Data will be collected in one visit, using standardized questionnaires to capture: demographics, social status, parental employment status, working, social relations, disease characteristics (DSM-IV-TR subtype, CGI, CGA, and ADHD IV), service utilization, drug and non-pharmacological treatments, quality of life (EuroQoL-5D) patient's and work productivity (WPAI). A descriptive analysis of the sample will be performed. A univariate analysis will be carried out to explore associations between the costs and the response to treatment and other relevant variables. A multivariate analysis will be performed to obtain adjusted estimates of the association between costs and response. The study has been registered with the Spanish agency of medicines and health products and accepted by the ethics committees of the participating centres. Recruitment has begun.

Conclusions: This study in Spain is a novel and innovative approached to the total cost of ADHD, which never has been analyzed before.

Reference:

1. Doshi JA, Hodgkins P, Kahle J, Sikirica V, Cangelosi MJ, Setyawan J; Erder MH, Neumann PJ. Economic Impact of Childhood and Adult Attention Deficit Hyperactivity Disorder in the United States. J Am Acad Child Adol Psychiatry (2012) 51 (10):990–1002.

Keywords: ADHD socio-economic impact cost.

PM-048

Eating behavior problems in preadolescence: A general population study of 11–12 year old Danish children (CCC2000)

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Background: Childhood eating problems are one of the most frequent concerns presented to paediatricians. Most of these problems are transient and improve with age, but some persist and might have deleterious consequences for the child's physical health and emotional well being. A range of eating problems is clinically seen in preadolescence, but studies in this age group are scarce. In the general population study (CCC2000) clusters of eating behaviours, differentially associated with impact and psychopathology at child age 5–7 were identified. These findings indicate that some eating problems seem to represent extreme variants of normal eating behaviours, whereas some seem to represent indicators or 'at risk' states of mental disorders. This study aims to explore the distribution and correlates of eating behaviours and disordered eating in preadolescence.

Methods: The study is a sub study of the 11–12 year follow-up of the Copenhagen Child Cohort study 2000 (CCC2000), which is a general population birth cohort study of 6090 children born in 2000. We used the childhood eating assessment questionnaire (CEAQ) and the eating pattern inventory (EPI) and the children's figure rating scale, of which CEAQ and EPI also were used in the 5–7 year follow-up. The measures of eating behaviours were obtained from self-report questionnaires answered electronically by the children and their parents. The children also had a hands-on assessment at the clinic measuring height, weight and pubertal status.

Results: Out of 4811eligible children at the 11–12 year follow-up, data on eating behaviours were obtained on 2138 children (48 % boys and 52 % girls). Data analyses are ongoing and the results of the study will be ended spring 2013. Data on the distribution of eating behaviours and their physical and psychological correlates at child age 11–12 will be presented.

Perspectives: The study is expected to contribute knowledge about the distribution and correlates of eating behaviours in preadolescence.

The prospective data in CCC2000 and the results of the present study gives a unique opportunity to describe the longitudinal course of childhood eating problems and 'at risk' states of problematic eating behaviours from early childhood into preadolescence.

Keywords: CCC2000, eating behaviour, eating, child.

PM-049

Using technology to support engagement; iPad app for self monitoring and building alliance in the clinical relationship

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Background: Young people seldom feel in charge of the process of coming to see a psychiatrist and often have a level of reluctance or anxiety about engaging in assessment or therapeutic conversation. Written questionnaires can make the communication easier, and young people's high level of comfort with technology can make electronic versions of questionnaires even more appealing than paper based questionnaires. Method: The authors have been developing an iPad app which uses touch screen technology to present a young person with a brief questionnaire relating to how they are functioning on a range of issues, rate their experience of the clinical interventions received during the previous week and give feedback on how they perceived the conversation with the clinician. Results can be stored, collated and emailed.

Results: Preliminary use of the app has shown a high level of acceptability to young people and families. We have been using it during the initial assessment to access information about the young person's experience or functioning over a range of domains, identifying areas to focus on. Additionally, we have been using it in ongoing work to monitor progress. How the young person makes the decision where on the scale to touch the screen and how often they change their minds provides valuable mental state information, particularly with psychosis. In family work it gives a quick opportunity to learn about the young person's symptoms without having to derail the session to focus on these. In solution focused therapy it means that the level of difficulty can be communicated without a problem saturated conversation. This is particularly important where suicidal thoughts and other safety issues need to be monitored. Using the app to access feedback from the young person (±family) about the clinical interventions enables early repair to threats to alliance and focusing therapeutic interventions where the young people are most interested and engaged. Conclusions: Using this iPad app is accessible, acceptable to young people and has the potential to facilitate engaging young people in assessment, during a range of clinical interventions and in providing feedback to build a therapeutic alliance.

Keywords: Feedback, engagement, alliance, self-rating.

PM-050

General population knowledge (Gpk) of attention deficit hyperactivity disorder spanish survey vs. experts groups consensus (Exgc)

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Objective: To compare knowledge among the general Spanish population (GPK) about attention deficit hyperactivity disorder (ADHD) vs. expert groups consensus (ExGC).

Material and method: We used a Telephone-administered questionnaire to ask about ADHD (acronym and full name) on a "spontaneous" and "suggested" basis (offering hints). Questions were asked related to "myths", symptoms, treatment, implications and healthcare professionals involved in the disease. Sample was 770 adults (sample precision at national level 3.5) with no personal, familial or professional relationship to ADHD.

ExGC: 8 experts (Physicians, nurses, teachers and parents) representing more than 200 ADHD associations. The expert consensus was obtained unanimously (100 % votes).

Results: (GPK results/unanimously ExGC). ADHD: Only 4 % of the subjects knew what ADHD means and 50 % thought that the disorder is probably a genetic brain disorder. The general population has not adequate knowledge about ADHD and need more information. All the ExGC knew about ADHD. Implications: Only 13.3 % of the general population considered that ADHD caused academic or learning limitations/ExGC thought that there is a need for educational system adjustments and more State help to schools and parents. Intervention-Treatment: 39.6 % believed that there was no treatment or healthcare intervention for ADHD/ExGC thought that there is a need for more resources for multimodal therapy and individualization therapy according patients profile (consensus between different ADHD guidelines).

Conclusions: The Knowledge among the general population regarding ADHD compared with the experts was much lower about the implications and impairment. There are areas for improvement among the general Spanish population on ADHD knowledge such as the origin of the disease and its management.

Keywords: ADHD expert consensus General Knowledge.

PM-051

Natural disasters and children's mental health needs

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Purpose: The purpose of this presentation is to discuss the challenges in providing mental health interventions to children after a large scale natural disaster. After a natural disaster that destroys the infrastructure of the community, as seen in the Great East Japan Earthquake in March 2011, adults tend to become confused, disorganized or overwhelmed. As a result, the need for children to receive mental health intervention either get neglected or delayed. There is no model for pediatric care, and many mental health clinicians utilized adult models of intervention that were not effective with children.

Subjects: During the course of the last 2 years, we have assessed and observed children who exhibited a number of symptoms at different stages of disaster recovery. We decided to prioritize two groups of children to treat due to their intense needs, and will be presenting on the issues we learned from these two groups. The first group is the children at a day care center where they were left on a rooftop with their caretakers. Not only did they experience violent shakes of the earthquake, they witnessed tsunami waves coming toward them, swallowing neighbors and strangers, and big fires from the nearby oil tank explosion.

Discussion: At the acute stage of the disaster, there were many children with psychiatric problems who were referred to our center for intervention. Almost all of them were diagnosed with either acute stress reaction or disorder.

After this stage the number of referrals has gradually decreased. There seemed to be very few of children who suffered from traumatic problems. However, when we repeatedly approached teachers who had direct contact with children, they described the concerning situation they saw in the children, including traumatic symptoms. It was extremely important to utilize these teachers as resources to gain access to children, while providing supports and education to them. As for children, those who seemed to be healthy at a day care center showed some trauma symptoms and other psychiatric problems at home. These children might have strong feelings of safety toward their caregivers at the day care center who desperately protected them at the time of the big crisis and continued to function to anchor children's anxiety. The disaster also compromised parental functions and the childrearing system of the community. These disturbed environments might be the contributing factors to children developing Complex Trauma or aka Developmental PTSD.

Keywords: Disaster child psychiatry, natural disaster, PTSD, children' mental health needs.

PM-052

Analysis of GNAL polymorfisms in attention deficit hyperactivity disorder

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Dopamine 1 like receptors, dopamine 1 and dopamine 5 receptors, play an important role in the etiopathogenesis of attention deficit hyperactivity disorder (ADHD). These receptors mediate adenlyl cyclase activation by olfactory subunit Galfa(olf) in striatum. Striatum has an essential role in the neurobiology of ADHD. In this study we aimed to investigate two polymorphisms in GNAL which is the gene that codes olfactory subunit of Galfa(olf). The other objectives of the study was to investigate the relationships between GNAL and ADHD types and family history.100 children aged 6–18 with ADHD and 81 healthy controls were recruited for the study. Children which had IQ score lower than 70 and learning disability were excluded from the study. After detailed clinical evaluations, venous blood samples had collected from children. Genetic analysis were performed with the veneous blood samples. rs8095592 and rs3892113 polymorfisms in GNAL were investigated. GG genotype in rs8095592 was significantly higher in the patient group with positive family history. But there was no statistically significant difference between ADHD and control groups for rs8095592 and rs3892113 polymorfisms. Although these relations were not statistically significant; GG genotype in rs8095592 and TG genotype in rs3892113 were predominantly higher in the children with ADHD, predominantly inattentive type.

Conclusion: we found that rs8095592 polymorfism in GNAL could play an important role in ADHD genetics. Having allel A in rs8095591 could be protective for the people who had a family history for ADHD. Further researches that investigate the role of GNAL in ADHD are needed to confirm this result.

Keywords: Dopamine 1 like receptors, GNAL, ADHD.

PM-053

ADHD in children: group intervention including a service user perspective

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Background: Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder, whose prevalence varies from 1.5 % school-age children in UK (ICD-10) to 3–7 % school-age children in USA (DSM-IV-TR). With an onset in childhood, it is characterized by the presence of three main features: hyperactivity, inattention and impulsivity. ADHD treatment includes a comprehensive package of psycho-education, stimulant and non-stimulant medication, parenting and social skills training, school strategies and support groups. The UK National Health System (NHS) is committed to the active involvement of members of the public, patients and users in research, service evaluation and provision of care. This study aimed at presenting the impact of the participation and feed-back of Service User in the provision of a treatment package for children newly diagnosed of ADHD.

Methods: This poster presents the treatment package offered to children aged below 13 years old newly diagnosed with ADHD in Hounslow Child and Adolescent Mental Health Service (London, UK) in 2012. It included medication for moderate to severe ADHD, individual psycho-education sessions, school consultations and two different group modalities: a monthly drop-in group and a 6-week group). These groups were run by a Specialist Nurse and a Service User, who is the ADHD Information Service (ADDISS), a UK registered charity which offers information and support for children with ADHD and their families. As the mother of a child with ADHD, she brought her personal experience as a user to the therapeutic process.

Results: The Specialist Nurse and the Service User run two group modalities: (i) a monthly drop-in group (1 hour and a half session) and (ii) a 6-week group (2-hours weekly sessions), which covered the following areas: psychoeducation on medication, management of difficult behavior at home and in the school environment, educational statementing at school and management of impact on family life. A detailed description of the groups' content and the Service User's perspective regarding her role in the group and its delivery will be provided.

Conclusions: Parenting training and psychoeducation programs, in combination with medication when required, are the first line of treatment for children with ADHD. The NHS and Community Care Act was the first piece of UK legislation to establish a formal requirement for user involvement in Service Planning, back in 1990. Following up from this, in 2000, the Department of Health emphasizes the Government commitment to creating a patient-centre NSH with user needs central to service design and delivery. In this new era, Service Users are not only invited to give input on service planning but also get actively involved in service delivery. Users' views are of value to ensure the usefulness and relevance of provision and their voice can make a difference to the lives of other service users.

Keywords: ADHD, service user, therapeutic groups.

PM-054

Is ADHD restrictive sub-type which is specified by DSM-V a valid diagnosis? Holistic assessment with executive functions, genetic and multimodal brain imaging methods

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Objective: The aim of this study was to identify differences between DSM V proposed ADHD inattentive subtype (restrictive subtype) and ADHD combined, predominantly inattentive subtypes and healthy controls using three different imaging techniques (fMRI, DTI and ASL) combined with genotyping scores of DAT-1 and DRD4 genes and neurocognitive performance of subjects on a computerized test battery. The three main contributions of this study to the field of ADHD are: (1) combining genetic, neuropsychologic and imaging findings in a well defined sample (2) employing three different imaging techniques (DTI, fMRI and ASL) for ADHD children in the same study sample. 3-comparing genetic, neuropsychologic and imaging aspects of DSM-V proposed ADHD inattentive (restrictive) subtype with other subtypes and controls.

Method: The study sample consisted of 201 ADHD patients (101 combined type, 50 Predominantly inattentive subtypes, 50 Restrictive Type) and 100 healthy controls. A semi-structured interview (K-SADS) was conducted with a senior year child psychiatry resident. Subjects were exclude if they meet DSM-IV diagnostic criteria for any psychiatric diagnosis (except ODD), history of medication use, estimated IQ < 80, presence of any neurological or psychiatric disorder. These children were then assessed on a computerized neuropsychologic test battery. Patients were grouped according to the presence of risk alleles at DRD4 locus (7-repeat allele) and DAT1 locus (homozigosity for the 10-repeat allele). 24 cases from each group (ADHD-combined, predominantly inattentive, inattentive, control) were enrolled in imaging study according to their genotyping scores. Multimodal imaging consisted of fMRI, ASL and DTI were performed to 96 patients, who accepted to take part in the study.

Results: Our results revealed that, ADHD IA cases were performed worse on psychomotor speed and reaction time subtests of neurocognitive test battery. We also found significantly more DRD4 7 allele carriers in ADHD-IA group. Most interestingly, occipital activation of ADHD restrictive cases significantly differed from ADHD Predominantly Inattentive Subtype on fMRI during go and no-go, and from ADHD Combined on perfusional ASL during go. This overlapping occipital activation difference found in ADHD IA group, which is obtained by two separate imaging technique, also partially supported by DTI results. ADHD IA group differed from normal controls on Axial Diffusivity including "superior longitudinal fasciculus".

Discussion: These results could be explained as "occipital cortex interacts with the dorsal attentional network to maintain attention and suppress attention to irrelevant stimuli". So we may speculate that, isolated attentional problems which is represented as ADHD IA subtype in DSM V are related to occipital differences that led to psychomotor speed and reaction time problems.

Keywords: ADHD, restrictive subtype, neuropsychologic test, DRD4, DAT1, fMRI, ASL, DTI

PM-055

In its infancy: developing perinatal mental health services in Northern Ireland

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Introduction: In the UK, there are established specialist perinatal mental health services (ranging from mother and baby units and specialist community mental health teams), serving the needs of women with mental health issues during pregnancy or in the postpartum period, and offering advice on the management of mental illness prior to conception [1]. AimsThis audit seeks to review existent perinatal mental health services within the Southern Trust in Northern Ireland and local professional's awareness of current and future service provision and to compare the existing Perinatal services in Northern Ireland's Southern Trust against National Institute of Clinical Excellence (NICE) recommendations.

Methods: Mental Health Team Leaders were approached to identify pregnant and postnatal women who required admission between 2011 and 2012. Professionals completed adapted telephone/email questionnaires based on the NICE Clinical Management and Service Guidelines Survey of Antenatal and Postnatal Health Primary Care Services in England and Wales Questionnaire (2007) [2].

Results: During the 2011–12 period there were 5 admissions to inpatient beds. Home Treatment Teams supported 6 women in the community. Diagnoses included Postnatal Depression ($n = 6$, including one associated with deliberate self harm), puerperal psychosis ($n = 3$), borderline personality disorder presenting during pregnancy ($n = 1$) and adjustment disorder ($n = 1$). Services became involved from 24 weeks gestation to 8 months postpartum. Only 3 out of 8 professionals surveyed correctly identified the lead clinician/manager within the Trust. 5 out of 8 respondents were aware of an agreed policy. Individual comments highlighted the need for an identified Consultant Psychiatrist sessional input and improved training. The majority of those asked were aware of a Health Visitor training programme. All professionals were aware of the absence of inpatient mother and baby unit or specialist services. A small minority were fully aware of the Trust's multiagency perinatal/antenatal health strategy.

Conclusions: Discrepancies in understanding of service provision suggest a need for improved communication and training amongst professionals. Re-audit is planned on implementation of the Southern Trust's Perinatal Mental Health Service care plan and pathway. This audit highlights that in Northern Ireland there are limited opportunities for trainees with an interest in perinatal psychiatry to access specialist multidisciplinary teams.

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Keywords: Perinatal mental health service audit.

PM-056

Implementation of the primary care Strategy 2005: a study of the experiences of team work among members of primary care teams in county Wexford in 2011.

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To explore the experiences of health care professionals who are members of primary care teams in Wexford and to determine the benefits and/or problems with this new method of service delivery. To find out the quality of multi-professional team-working that exists amongst PCT members. It also examines team members' perception of the quality of team work and team leadership within primary care teams in county Wexford and the effect of having a primary care centre and gender on team working. It also looks at health care gains, advantages and disadvantages of PCTs in County Wexford. Mixed Method approach involving a quantitative cluster sample of Four PCTs in County Wexford and semi structured qualitative interviews of seven PCT members across different professional groups. Self completed questionnaires by 50 PCT members were administered between February to April 2011. Response rate is 62 %. Quantitative data was analysedusing Excel spreadsheets/database and Predictive Analytics Software (PASW, also called SPSS software) 17.0 for windows after imputing precoded data. SPSS analysed the cross tabulation of respondent variables. Qualitative semi structured interviews were also carried out with seven interviewees to get richer information to support data obtained through the questionnaires. These were analysed using thematic analysis. Emergent themes were obtained and these were cross-checked by an independent investigator, Dr Chukwuemeka Nwaneri to improve reliability and validity of findings.60 % of respondents prefer to work out of PCTs. 43 % feel PCTs have made no difference, while 33 % feel PCTs have improved patient Care. Mean duration of PCT membership in Wexford is 20.21 months, 95 % CI is 14.11–26.31. Standard error of mean is 2.97. Majority feel they function as part of an MDT (59.5 %), 9.3 % feel more like individual professionals and 31.2 % gave no response to this question. Chi squared tests shows that gender or professional discipline have no significant effect on the perception of whether respondents functioned as part of a MDT or not. Gender also has no significant effect on whether people prefer the PCT approach to service delivery or not. Job description also had no significant effect on team member's perception of whether they function as part of an MDT or not. Professional identity also did not affect whether respondents feel PCTs have lead to improvement in patient care or not. Qualitative study revealed significant overlap in PCT patient population, extreme lack of clarity around PCT leadership and many problems hindering the progress of team work in PCTs. Primary care is a very important part of the Irish health delivery system and many difficulties face successful implementation of the primary care strategy and development of PCTs in Wexford. Lack of clear leadership roles, planning of teams geographically rather than through universal patient registration, lack of purpose built PCC and resource/staffing shortages are some of the many obstacles to teamwork in PCTs.

Keywords: Interprofessionalism, primary care.

PM-057

Lifetime DSM-IV Axis I disorders in the offspring of bipolar and schizophrenia: baseline results of the BASYS study

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Background: Studies evaluating children and adolescents offspring of bipolar (BpO) and schizophrenia (SchO) had found elevated rates of nonpsychotic disorders between 40 and 60 % in both groups (Hans et al., 2004). Focusing on specific disorders, BpO controlled studies (Hirshfeld-Becker et al. 2006) reported that mood disorders and anxiety disorders followed by attention deficit hyperactive disorder (ADHD) were the most prevalent Axis I diagnoses. On the other hand, studies of SchO have shown higher rates of externalizing disorders compared to controls (Keshavan et al. 2008).Only, one research group have directly compared prevalence of psychopathology between the BpO and SchO from multigenerational families densely affected by schizophrenia or bipolar Disorder and control group was included. (Maziade et al. 2008).
Objective: To compare lifetime prevalence of DSM-IV Axis I disorders in BpO, SchO, and offspring of community controls (CcO).
Methods: *Participants:* The BASYS Study set out to follow-up offspring of bipolar and schizophrenia patients between 7 and 17 years old. 90 BpO and 40 SchO were recruited through the outpatient departments of adult mental health services of the Hospital Clinic de Barcelona and Hospital Gregorio Marañón, Madrid, Spain. 107 community controls (CCo) were recruited from the same geographical area as patients. Participants were assessed using the Spanish version of K-SADS-PL by a qualified psychiatrist blinded to parental status
Results: SchO showed lower SES than both BpO and CcO groups. SchO and BpO groups also differed in terms of age and gender. SchO and Bop had statistically significant higher rates of any Axis I psychiatric disorder (60 and 36.7 % respectively) as compared to Cc (17.8 %).When SchO and BpO were compared, SchO presented statistical higher prevalence of psychiatric disorders. More specifically, higher prevalence of ADHD (47.5 vs. 17.6 %) and disruptive disorders (15 vs. 17.6 %), but that difference become not significant when controlled for SES. SchO presented greater rates of ADHD, disruptive disorders and anxiety disorders than CcO, but when controlling for SES, only ADHD (47.5 vs. 7.5 %) and anxiety disorders(17.5 vs. 5.6 %) remained significant. Finally, BpO group had statistically significant higher prevalence of mood disorders (15.6 vs. 4.7 %) and ADHD than CcO.

Keywords: High risk, bipolar disorder, schizophrenia, psychopathology, child and adolescent.

PM-058

Adolescents requiring hospital treatment for depression, conduct disorder, or their comorbidity have many similar life event and clinical characteristics

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Background: Previous studies have shown that long term outcomes for children with both externalizing and internalizing symptoms are worse compared to those having either type of the symptoms. Depressive and conduct disorders are both common mental health problems among adolescents and comorbidity is also typical. These disorders in severe form may require hospital treatment.
Aims: We analyzed whether inpatient adolescents with depressive disorders differ from those with either conduct disorders or current comorbidity of both in their background, life event and clinical characteristics at admission.
Methods: The subjects were 206 adolescents admitted to hospital 2006–2010. The data included background information, DSM-IV diagnoses primarily based on K-SADS-pl interviews, and self-administered scales (BDI-21, Audit, LEC, PSSS-R). Major depressive, dysthymic and depressive disorder NOS were categorized as depressive disorders (DD). Conduct, oppositional defiant and disruptive behavior disorder NOS were categorized as conduct disorders (CD). Combination of DD and CD was regarded as comorbidity (CM).
Results: There were 102 patients with DD (81 % girls), 24 with CD (46 % girls), and 15 with CM (67 % girls). DD patients were older than CD patients. There were no differences between the groups with parental SES, parental death, unemployment, psychiatric treatment, with the numbers of self-reported negative life events, perceived social support, or with proportions of those reporting experienced school bullying or sexual abuse. Drinking behaviors were similar between the groups. Parental divorce was more frequent with CD patients. Parental substance abuse problems, witnessing domestic violence, contact to child welfare services and placement outside home were more common among those with CD or CM. Physical abuse had been experienced by 18 % of the DD, 39 % of the CD and 60 % of the CM patients, differences were significant. There were no differences in proportions of those admitted for suicide attempt, thoughts or threats. CGAS scores were equally low. Those with DD and CM had higher BDI-21 scores (M = 26.4 and 23.9) compared to CD (M = 13.9).
Conclusions: In many aspects adolescents with depression did not differ from those with conduct disorder. Those with conduct disorder or comorbidity had more often parental substance use problems, had experienced physical abuse and had contact to child welfare. Depressed adolescents had higher BDI-21 scores but they did not differ in suicidal behaviors from the adolescent with conduct disorders requiring hospital treatment.
Keywords: Adolescent, life events, depression, conduct disorders.

PM-059

Clinical improvement, age, gender and serum concentration of active moiety (fluoxetine + norfluoxetine) in MDD patients

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Fluoxetine (FLX) is a useful drug in the treatment of major depression disorder (MDD) in adolescent populations. Despite its efficacy, 30–40 % of the patients do not respond to treatment.
Aim: To evaluate if clinical improvement is related to serum concentration of active moiety (fluoxetine + norfluoxetine)at 8 and 12 weeks after staring treatment in a sample of adolescents diagnosed of MDD and to analyse which variables are related to serum concentration of active moiety.
Methods: The study was conducted at the Child and Adolescent Psychiatry and Psychology Service of the Institute of Neurosciences at the Hospital Clinic in Barcelona. The period of recruitment was from June 2011 to December 2012. All the adolescents met DSM-IV diagnostic criteria for MDD made by an experienced child psychiatrist. All subjects began FLXtreatment at the initial phase of the study (week 0). Information about severity of illness was obtained at week 0 through the CDI (children's depression inventory) and the CGI (clinical global impression) scales. To assess clinical improvementCDI and CGI were administered at weeks 8 and 12. UKU (Udvalg for Klinske Undersogelser)scale was administered to assess side effects of treatment. All data were analysed using SPSS 18.0 for Windows. Spearman's rank correlation coefficient was used to assess relationship between two variables. Statistical significance was set at $p < 0.05$.
Results: The sample included 40 patients (70 % females and 30 % males). The mean age was 14.68 years (DS = 2,093). At week 8 mean dose of FLX was 21.05 mg/day (DS = 8,038) and the mean of FLX + NORFLX was 177.1 ng/ml (DS = 143.419). At week 8, there was a statistical significant difference in the mean of active moiety between males and females ($t = -2.39$; $p = 0.03$), being higher in females (mean = 155.386 ng/ml) than in males (70.905 ng/ml). No significant linear correlation between age and dose or serum concentration of FLX + NORFLX was found. No significant linear correlation between serum concentration of active moietyand side effects (measured by UKU scale) (Spearman's rank correlation coefficient = 0.24; $p = 0.129 > 0.05$) or with clinical improvement was found. At week 12, also was found statistical significant difference in the mean of FLX + NORFLX between males and females ($t = -2.103$; $p = 0.04$). No significant linear correlation between serum concentration of active moietyand side effects or clinical improvement was found (measured by CDI or CGII).
Conclusions: Serum concentration of FLX + NORFLX is related to gender but not to age or clinical improvement.
Keywords: Fluoxetine, major depression disorder.

PM-060

HealSeeker: the effectiveness of a newly developed serious game for children with ADHD.

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Background: Recent findings demonstrate that educational computer games (Serious Games) can contribute to the multimodal treatment of children with ADHD (Prins et al., 2011). This creates possibilities for the application of Serious Games as an additional intervention to reduce ADHD associated problems and, thereby, improving self management. Children with ADHD often experience difficulties in planning and organisation, time management and maintenance of social relationships. The intervention developed for this study was a Serious Game (called HealSeeker) with a social community that focuses on improving children's skills in the areas of time management, planning and organisation and prosocial behaviour.
Methods: From November until March 2012 a pilot study with a randomized pre- post-test design was performed. A total of 42 children with ADHD, aged between 7 and 12 years, participated in this study. More recently an open randomised, controlled, multicenter trial was carried out in the Netherlands and Belgium. A total of 170 children with ADHD, aged between 8 and 12, was randomly assigned to two different conditions: an immediate and a delayed treatment group. Children were asked to play the game three times a week, from week 0–10 for the immediate treatment group and from week 10–20 for the delayed treatment group. Assessments were carried out at baseline and at 10 and 20 weeks.
Results: Results of the pilot study yielded promising positive results. Two types of results will be presented: first, the variables that were analysed and are related to children's achievement and behavioural adaption within the game; secondly, the behavioural questionnaires from parents and teachers and neuropsychological tests administered by the child that were analysed to measure transfer of real-life behaviour change. In addition, preliminary results of the randomized controlled trial will be presented.
Discussion: Can HealSeeker contribute to the treatment of associated problems of ADHD? Could it complement the current treatment of children with ADHD? These questions will be discussed in the context of the presented results and previous research on HealSeeker.
Keywords: Serious gaming, ADHD, randomized controlled trial, pilot study.

PM-061

Self esteem and associated factors in a large clinical adolescent sample in Turkey

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Objective: In literature self esteem is found to be lower in clinically referred adolescents compared to adolescents without any psychiatric disorder. The aim of this study is to examine the self esteem and associated factors in clinically referred adolescents in Turkey.
Method: 349 adolescents aged between 12 and 18 years admitted to the Child and Adolescent Psychiatry Department with a psychiatric complaint were enrolled. Adolescents with mental retardation, pervasive developmental disorders or psychotic symptoms were excluded. The final study group consisted of 308 adolescents. Brief Symptom Inventory (BSI), Sense of Identity Assessment Form (SIAF), Rosenberg Self-Esteem Scale (RSES) and Parenting Style Scale (PSS) were used for evaluation.
Results: The mean age was 14.6 ± 1.5 years and the male/female ratio was 1/1.7. Fifty-five (18.5 %) adolescents reported non suicidal self injury (NSSI) and 43 (14 %) past suicide attempts. Major depressive disorder, anxiety disorders, ADHD and conduct disorder were the most common psychiatric disorders. Adolescents without siblings ($p = 0.013$) and living in non-traditional families ($p = 0.021$) had lower self esteem. Self esteem was lower in girls with past suicide attempt ($p = 0.013$), in boys with somatoform disorders ($p = 0.005$), and in both girls and boys with NSSI ($p = 0.027$, $p = 0.001$). RSES scores were positively correlated with identity confusion scores ($p < 0.001$), anxiety ($p < 0.001$), depression ($p = 0.015$), negative self ($p < 0.001$) and somatization ($p = 0.003$) scores on BSI and negatively correlated with acceptance/involvement ($p = 0.002$) scores on PSS. The predictors included in a multiple linear regression model to determine important risk factors affecting RSES score were age, gender, beginning of adolescence, parental education, presence of sibling(s), family structure, family history of medical and psychiatric illness, history of medical disease, suicidal behavior, NSSI, BSI-GSI score, SIAF score, PSS scores. The model explained 39.8 % of the variance on the total score of RSES. While NSSI and family history of psychiatric disease predicted low self esteem, presence of sibling(s) predicted high self esteem. SIAF scores were positively correlated with RSES scores.
Conclusion: Interactions between self esteem and gender, psychiatric symptoms, identity development and family environment are complex in clinically referred adolescents. Further elucidation of the mechanisms through which these characteristics modify self-esteem will be necessary to guide families and clinicians to help adolescents to maintain high self-esteem levels.
Keywords: Self esteem, adolescence.

PM-062

Beechcroft regional inpatient adolescent mental health service: no consent, no defence

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Beechcroft Adolescent Ward is a regional, inpatient Adolescent Mental Health Service. Beechcroft provides inpatient support for outpatient Child and Adolescent Mental Health Services across Nothern Ireland, accepting both planned and unplanned admissions. Young people admitted can have diagnoses which range greatly from attachment disorders, to psychoses and mood disorders. As healthcare professionals, we are increasingly aware of the importance of gaining informed consent, and the rights of the patients to be fully informed before making decisions about their care. The nature of some medications used in mental health also mean that side effects may only come to light many years later. This makes it essential that record keeping is meticulous and that a standardised approach is used to document informed consent. It is also worth noting that many medications are not licenced for use in the under 18yrs age group and are prescribed 'off licence'. A baseline audit in 2009/2010 looking at the quality of information documented in relation to consent to new medications, aimed to assess current working practice and to devise standards and recommendations based on the results. Literature and internet searches prior to this audit failed to identify any guidelines pertaining specifically to the documentation of consent. Results showed that there was no standardised approach to consent, and for the majority of cases, no record of consent was present in the notes, when documentation was found it was sparse and lacked even basic identification details, no standardised approach was being used and information documented varied greatly between different members of staff. In light of these results, we devised a standardised consent form this form was adopted by both wards. The form ensured that essential information was captured and that prompts encouraged clinicians to address key issues, such as Competence and Capacity, whether the drug was being used off licence, indication, titration, monitoring and adverse effects. The lead authors repeated the Audit in 2012, we found that the consent form was used in 100 % of cases where a new medication was commenced, however if the young person or parent declined the form was not completed. This will be addressed by the team as it is equally important to document clearly conversations regarding therapy with parents regardless of their decision. The majority of forms completed contained all relevant information. In conclusion, the lead authors considered the issue of documented consent to be a critical one, particularly in the context of information sharing, gaining informed and valid consent and recording this appropriately in the notes. This audit has allowed us to identify need and address it with the introduction of the standardised consent form, repeating the audit has allowed the team to track and evidence good practice. This experience has emphasised the importance of audit as a means of assessing and improving clinical practice and informing further service development.

Keywords: Consent, medication, documentation.

PM-063
Biomarker for brain maturation

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Objective: Mentis Cura is a research and development company in Iceland, which in collaboration with the National University Hospital, is developing a diagnostic classifier for brain maturation in children. The study of brain maturation is an important aspect of the diagnostic evaluation of developmental disorders such as attention deficit hyperactivity disorder (ADHD).

Background: EEG (Electroencephalogram) records the electrical activity in the cerebral cortex and is sensitive to metabolic activity in the brain. There are significant changes in power spectral frequencies with development of the cerebral cortex in children. MRI studies have demonstrated difference in brain development of children with ADHD and found a delay rather than a deviance of normal brain maturation. The study of brain development of healthy school children may have a role in the diagnostic of various neuropsychiatric and developmental disorders, including ADHD.

Methods: The continuous scalp EEG was recorded in 216 control children and 150 ADHD children age 6–13, while the children rested with their eyes closed. Statistical pattern recognition (SPR) was applied to the data in order to determine which features of the EEG signal change with age.

Results: The index results in an EEG age, which is designed to closely correspond to the actual age of a subject with normal development of the cortex and its subsequent metabolic activity. The EEGs of children with and without ADHD where evaluated and the results show a delay in brain maturation measured with quantitative EEG in the ADHD group compared to normal controls. The results allowed us to develop a Brain Maturation Classifier, a standardized tool to monitor the brain developmental in children.

Conclusion: The Brain Maturation Classifier can serve as a useful screening tool for differences in development of children. EEG is easy to use, accessible and non-invasive and the recording takes only 5 min. It meets the need for objective diagnosis of neurodevelopmental disorders and has the potential of becoming an instrument measuring the effect of different treatment modalities.

Keywords: Development, diagnostic, ADHD, EEG, neurophysiology, biomarker.

PM-064
Neuropsycological approach to self-regualtion development

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Self-regulation is being studied by several psychological disciplines (health psychology, cognitive psychology, developmental psychology etc.). In current research we attempted to examine the question from neuropsychological point of view. We considered self-regulation as a system process, supporting relevant to the conditions changeability, flexibility of person's life activity. The self-regulation model (Nikolaeva, 1991) consists of three levels—the level of self-regulation of psychic states, the operational and the motivational level. The aim of current research was to influence on malfunction of the first level of self-regulation. The participants of research were students of the second form of school in the age of eight-nine years having problems with school education because of instability and lack of concentration. The basic diagnostics method was the Luria's neuropsychological battery of tests, adapted by A. Semenovitch (2002).The intervention method applied was sensomotor correction (Goryacheva and Sultanova, 2003). It is based on the Luria's theory of three functional blocks of brain (Luria, 2000) and focuses on normalization of first functional block of brain by means of motion. The children formed groups of 6 persons each one. During 7 months they had been having two 1-hour sessions per week. The correction process included four stages, each of them having special exercises (breathing, locomotory, oculomotor etc.). Some basic exercises were performed throughout the whole correction period. Comparison with the control group has shown that the sufficient positive changes of self-regulation level have taken place in the experimental group. Improving of school results, more pronounced in experimental group, also confirms that sensomotor correction is a powerful way of self-regulation development.

Keywords: Self-regulation, sensomotor correction.

PM-065
Children presenting to an adult mental health service

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Introduction: The authors collected data on children aged 16 and 17 years presenting to an adult mental health service. The population in question comprises a mixed urban/rural community of 190,000 people in total. The adult mental health service is organised into four sectors, each with a medium-sized town as the base for the community mental health centre. Each sector is served by a multi-disciplinary team, including consultant general adult psychiatrist as clinical team leader. The in-patient unit has 24 beds. Out-of-hours referrals and self-presentations are assessed at the in-patient unit.

Method: The data was anonymised. The audit was partly retrospective and partly prospective. The retrospective time-period was July 2012 to December 2012. Prospectively we took the months January 2013 to July 2013. We examined in-patient admissions, presentations to the emergency on-call psychiatric service, as well as referrals to the out-patient clinics by general practitioners. Presentations are analysed with regard to date of birth, sector, reason for referral, source of referral, elective or emergency, and management plan post-assessment.

Discussion: We discuss the particular needs of this vulnerable age group. Reference is made to the special legal, pharmacological and multi-disciplinary challenges in their management. Comparison is made with other countries concerning ways of managing this adolescent population. In conclusion, we discuss how we plan to complete the audit cycle.

Keywords: Audit, adolescent service-provision, audit cycle.

PM-066

Socio-psychological readiness of children with learning disabilities to school

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Children with learning disabilities at coming into school is often starved of formation of one or more components of psychological readiness (intellectual, personal, social and psychological). Study of children with mental retardation (U.V. Ulenkova, K.S. Lebidinsky, S.T. Shevchenko and others) showed that aborted readiness for school, often exacerbated by the physical condition and the functional state of the central nervous system. The aim of the study was to determine the characteristics of the socio-psychological readiness of children with learning disabilities to learn at school.20 students of special (correctional) preschool educational institution of Ufa attending preparatory group II and 20 preparatory group students of mass preschool educational institution of Ufa were involved in investigation. Results of empirical research, analysis of statistical techniques have enabled us to define the features of the socio-psychological readiness of children with learning disabilities to learn at school. Children with mental retardation showed significant differences compared with their normally developing peers:

1. The unity of the child's relationship to the adults (teachers) and proposed tasks by the adults (normally developing—80 %, with mental retardation—5 %);
2. Self-control (90 and 45 %);
3. Formation of self-esteem (70 and 30 %);
4. Internal position of pupils (80 and 50 %).

Determining of the degree of formation of the inner attitude of school-children with mental retardation has allowed us to assume the presence of school-children learning orientation and positive attitude towards school. Such position showed 50 % of children with mental retardation, and 80 % of their peers, while in comparison 35 % of children with mental retardation, and 10 % of their peers have an initial step of forming an inner school-children position. Thus, the results of empirical study have confirmed our hypothesis and the socio-psychological readiness of children with learning disabilities will have differences as compared with normally developing peers as within the group, depending on the form of mental retardation.

Keywords: Mental retardation, willingness to learn.

PM-067

Adolescent depression possibly following a rare viral infection (Barmah Forest Fever) in rural Australia

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Introduction: Miss. AW, a 16 year old single woman was referred to Child and Adolescent Outpatient unit of Goulburn Valley Area Mental Health Services (GVAMHS) with a depressive episode middle of last year. In January 2012, whilst on vacation to a farm near a state forest, AW possibly got infected with the Barmah Forest Fever (BFF) virus and presented a month later with a physical illness confirmed by lab testing to be BFF. Complete physical recovery from the viral illness was noted after about 5 months. However, in July 12, presented with poor sleep and appetite, low mood, tiredness, anhedonia and suicidal ideations (fulfilled the ICD 10 diagnostic criteria for a depressive episode, moderate severity). The symptom severities were further rated by using montogomery-asberg depression rating scale (MADRS) at 1st presentation and at 4, 8, 12, 16 and 24 weeks of treatment. Nil significant past history and family history of mental illness or suicide.

Management: AW was commenced on Tab Fluoxetine10mgs mane with no major side-effects. Dose increased to 20mgs mane after 7 days and continued till date.

Progress: She showed good improvement in her mood symptoms (as displayed in MADRS scores) and appears to have achieved complete clinical recovery.

MADRS scores:

At baseline = 31.
4 weeks = 23.
8 weeks = 11.
12 weeks = 5.
16 weeks = 4.
24 weeks = 4.

Discussion: Barmah Forest Fever (BFF) is a rare viral infection (5, 6, 7, 8), more common in the remote hilly regions of the states of Victoria, coastal New South Wales and Queensland. It is a Pseudo Arbo virus transmitted by mosquitoes with characteristic symptoms of polyarthritis, fever, headaches, vomiting and rashes (1). Depression following a viral infection has been commonly recorded in medical literature e.g. depression following influenza (3). Although there have been a few published reports of depression following infection with a similar but more common virus in Australia, called Ross River Virus (RRV) (6, 7, 8) there have been no case reports of depression or other mental illness following infection with BFF.

Conclusion: This study may assist mental health practitioners in being more aware and informed about the possible neuropsychological sequel to rare viral illness like BFF and provide early intervention.

Reference: To be listed in the actual presentation.

Keywords: Depression, Barmah Forest Fever.

PM-068

Evaluation of effectiveness of problem solving training (PST) for children with autism spectrum disorder (ASD) and their mothers

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Introduction: We have applied modified parent training for mothers of children with autism spectrum disorder (ASD), arranging into smaller groups, with shorter schedules (PTSS) and confirmed that it is effective in improved confidence of mothers. However, the program was less effective in behavioral changes of these children, suggesting the needs for the direct intervention on children. In Japan, problem solving training (PST) has been conducted for the children of the junior high school. However, the effectiveness of PST for the ASD-children of the younger age remains to be determined. We recently reported the preliminary data suggesting the effectiveness of PST which were conducted simultaneously for children with ASD and their mothers (Okuno et.al., 2011). In this study, we report the new evidence for its effectiveness which was revealed after we applied PST for more children with ASD and their mothers.

Method: PST was applied for 9 children with ASDof elementary school age (9.1–14.9 years) who were seen at Developmental Clinic of Osaka University. PST, which was based on cognitive behavior regimens, wascarried in 3-to-4 member groups consisting of either children or their mothers. One course consisted of threesessions: a better understanding of problem solving skills, emotional control skills and coping skills. The effect of PST was assessed with confidence degree questionnaire for families (CDQ) for mothers, or three scales, i.e., the child behavior checklist (CBCL), stress coping scales (SC-S) (Shimada, Miura, 1998) and interpersonal self-efficacy scale (S-ES) (Matsuo, Arai, 1998) for children. The assessment was performed at two time points, before and immediately after each course of PST.

Results: 10 out of 18 average CDQ scores increased in mothers after completing the entire PST course. The increase was significant forone item "Q12: Do you quarrel less with your family due to your child's behavior?" ($P < 0.05$). Externalizing T-score of CBCL sub-score was decreased significantly in children after PST *($P < 0.05$).*

Conclusion: These results suggested that the PST is useful as an intervention program for ASD children in that it increases mothers'confidence and improves children's behavior.

Keywords: Autism spectrum disorder (ASD), problem solving, child behavior checklist (CBCL), self-efficacy.

PM-069

Biomarker for ADHD in Children

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Objective: Attention deficit hyperactivity disorder (ADHD) is the most common developmental disorder in school-age children. Current diagnostic assessment relies primarily on observations of the child's behaviour, as reported by parents and schoolteachers. By the discovery of an underlying CNS dysfunction in individuals with ADHD, the need for a biomarker screening test became well recognized. Mentis Cura is a research and development company in Iceland, which in collaboration with the National University Hospital, is developing a diagnostic biomarker for ADHD and other developmental disorders. Electroencephalogram (EEG) measures the electrical activity in the cerebral cortex and is sensitive to metabolic activity in the brain. Several studies show that EEG's may have a role in ADHD diagnosis.

Methods: The continuous scalp EEG was recorded in 216 control children and 150 ADHD children age 6–13, while the children rested with their eyes closed. Statistical pattern recognition (SPR) was applied to the data in order to determine which features of the EEG signal best separate the groups.

Results: The SPR builds a classifier with an ADHD Index from 0 to 1. The index shows how consistent the EEG is with EEGs of ADHD children or controls in same age. The classifier can separate groups of ADHD children from healthy control groups with the accuracy of 76–92 %, depending on age group. The results allowed us to develop an ADHD Classifier, a standardized tool to screen for ADHD with a simple EEG recording.

Conclusion: The classifier can serve as a useful screening tool for ADHD. EEG is easy to use, accessible and non-invasive and the recording takes only 5 min. It meets the need for objective diagnosis of neurodevelopmental disorders and has the potential of becoming an instrument measuring the effect of different treatment modalities.

Keywords: Diagnostic, ADHD, EEG, development, biomarker, neurophysiology.

PM-070

Migratory processes and onset of psychiatric disorders in developmental age

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Background: The traumatic experiences associated with migration plays an important role in the occurrence of psychiatric disorders in vulnerable subjects.

Aim: The aim of our observational study is to correlate the different typologies of migratory processes with clinical and socio-demographic features in a pediatric Italian sample.

Sample: Between 2009 and 2012, 151 foreign underage subjects were hospitalized in the Clinic of Child and Adolescent Neuropsychiatry, S. Gerardo Hospital, Monza, Italy. We analyzed the data of 100 subjects dismissed with a psychiatric diagnosis (mean age: 13.6 years; SD = 3.5). Our sample was composed by 73 first-generation immigrants (FGM) (59 family reunified immigrants, RI, and 14 immigrated with their parents, IP), and 27 s generation immigrants (SGI).

Methods: Clinical features, giving particular importance to the timetable in which symptoms occurred after the arrival in Italy, the kind of onset (acute or chronic), the type of diagnosis and the type of sanitary and social cares were collected from medical records. Correlations with socio-demographic features, such as parental marital status and school attendance, were studied.

Results: The 3 subgroups were comparable for gender. The first generation migrants, 8 IP (57.1 %) and 23 RI (39.7 %), were more

frequently hospitalized for acute psychiatric symptoms, when compared to SGI (4, 15.4 %). In FGM, the onset of symptomatology occurred more frequently after a period of over 2 years after arriving in Italy: in particular, this observation was significantly more frequent in the group of IP (13; 92.9 %), when compared to the RI group (34; 57.6 %).The SGI accessed more frequently to social service cares (13; 48.1 %), than the RI (15; 25.4 %) and the IP (1; 7.1 %). Moreover, a higher rate of SGI (8; 29.6 %)was admitted in therapeutic community, when compared to the RI (6; 10.2 %).The RIs' parental statuswas more frequently characterized by not-cohabiting parents (38;64.4 %), whencompared to the SGI (11; 44 %) and the IP (3; 21.4 %). More cases of school withdrawals were observed in RI group (24;42.9 %), than the other two groups. No difference were observed according to the type of diagnosis between the three groups.
Discussion: Results outlined correlations between some clinical and socio-demographic differences and the typologies of migration processes. Furthemore, the results have revealed a window of 2 years after migration prior to the onset of psychiatric symptoms. This period of time represents an opportunity for the implementation of primary prevention programs.

Keywords: Migration, psychiatric disorders, time of onset.

PM-071
Effect of a missed appointments policy on non-attendance at an out-patient child and adolescent mental health service

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Objectives: Non-attendance at Child and Adolescent Mental Health Services causes a significant loss of clinical time resulting in prolonged waiting lists and delays in diagnosis and treatment. This study set out to assess the effect of circulating a clearly stated non-attendance policy on the rate of missed appointments at a tier three out-patient Child and Adolescent Mental Health Service
Method: A non-attendance policy was circulated to all families from the D2, D4 and D12 catchment areas of Dublin attending the Lucena Clinic, Rathgar, a Tier 3 Child and Adolescent Mental Health Service in April 2012. The policy was also circulated to all families newly referred to the service from April 2012 onwards. The policy made clear that non-attendance at initial assessment would result in discharge from the service back to General Practicioner and that missed follow up appointments would result in an opt-in letter followed by discharge if there is no response with a fixed time period. The non-attendance rate for appointments with the multi-disciplinary team was then calculated over a 2 month period following the circulation of the policy. This rate was then compared to the non-attendance rate over the same time period the previous year. This was to allow for natural fluctuations in the attendance rate over the course of the year.
Results: From May 2011 to May 2012 non-attendance rates fell from 14.91–11.87 % For June this was reversed rising from 11.04–15.03 % The average rate over the 2 month period was stable at 12.98 % for 2011 and 13.45 % for 2012 and this was less than the national average for the 2011 of 19.6 %.
Conclusion: These results suggest a possible immediate effect of the circulation of the policy that was not sustained suggesting a regular reminder of the policy, coupled with routine discharge of families who are not engaging, may improve attendance within the service.

Keywords: Out-patients, non-attendance, waiting lists.

PM-072
A music group for young people attending the Lucena Clinic Rathgar

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Background: Youth mental health is a significant public health concern in Ireland with high rates of youth suicide and self harm. Despite this young people's engagement with mental health services can be poor. A number of recent reports have highlighted the need for creative, youth friendly approaches to promote engagement.
Aims: The Lucena Clinic music group was set up as a pilot project to investigate the level of interest in a music group and the feasibility of running such a group in an out-patient Child and Adolescent Mental Health Service, as well as any potential benefits with regards to mental health of the young people attending.
Methods: Young people aged fifteen to eighteen attending the Lucena clinic were invited to the group. Invitation was made on the suggestion of key workers. Of fifteen young people invited, five consented to attend eight weekly music sessions. The Strengths and Difficulties questionnaire was completed at baseline and again after 8 weeks along with a study specific feedback questionnaire. Treatment as usual continued alongside the music group.
Results: Before and after SDQs revealed a minor mean reduction in scores over the 8 weeks. Feedback from the study specific questionnaire revealed that group was an enjoyable experience for all the young people attending, with subjective improvements described in mood, motivation, self confidence and social skills.
Conclusions: the results of this study suggest that a music group can be a useful adjunct to treatment within a child and adolescent mental health service, providing a youth friendly, non-pathologising intervention which can promote attendance and which may have mental health benefits to the young people attending.

Keywords: Music, child and adolescent mental health service, ADHD, ASD.

PM-073
Case report Of 47 Xyy chromosomal abnormality

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Method: TJ a 10 year old boy was referred to the Mater CAMHS for assessment of an 8 year history of difficulties in reciprocal social interaction, communication, difficulty in concentration, hyperactivity and sexualised behaviour that was pervasive across situations. A multidisciplinary approach was adopted which included Occupational therapy, Speech and Language, Psychology and Psychiatric assessments.
Results: The Connors' Rating Scale was completed by TJ's parents and school. TJ scored at cut-off T-Score = 71 inattention on the Teacher's Connors Rating Scale. He scored above the cut-off T-Score = 79 on the Parent's Connors' Rating Scale. TJ's overall score of 69 was just below cut-off for a diagnosis of Attention Deficit Hyperactivity Disorder on his Teacher's Conner's Rating Scale and just above cut-off at 72 on Parent's Connors' Rating Scale. On

assessment of his mental state, TJ presented as a quiet, pleasant passive young boy. He demonstrated limited interaction with his parents and interviewer during initial assessment. He made poor eye contact and limited amount of gestures to aid communication. TJ's speech was of normal rate, tone and volume with normal vocal inflections. There were no abnormalities of thought form or content. His play was rigid, repetitive and lacking in imagination. No perceptual abnormalities were observed. The Wechsler Preschool and Primary Scale of Intelligence WPPSI-III was completed showing IQ in Borderline range of Ability. TJ's scores on the language assessment indicated a Moderate Receptive Language Impairment. Expressive Language skills were within the Average range. TJ results on the language assessment were noted to be commensurate with his intellectual abilities. TJ also presented with pragmatic language impairment. A new ADOS assessment in conjunction with a clinical assessment indicated a diagnosis of Autistic Spectrum Disorder, DSM-V 1994, also referred to as Pervasive Developmental Disorder Not Otherwise Specified PDD-NOS in ICD-10 Classification.

Conclusion: TJ a 10 year old boy, met the diagnostic criteria for Pervasive Developmental Disorder NOS ICD-10 1990. This is on the background of a diagnosis of XYY Chromosomal Disorder. Cognitively TJ functions within the borderline range of ability. He has pragmatic language difficulties and sensory processing difficulties consistent with his diagnosis of PDD NOS that impact on his functioning socially and academically.

Literature review: For XYY males who grow up in a poor environment without sufficient stimulation and support there is a slightly increased risk of developing social and mental health problems in addition to problems in social adjustment compared with siblings. XYY boys have a normal intelligence and they generally develop within the normal range in all areas if grown up in a good, stimulating, stable and loving environment where they get the support and help they need.

Keywords: Chromosomal XYY abnormality.

PM-074

Efficacy of the treatment program for children with aggressive behavior: a within subject analysis and comparison with waiting period

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Objectives: The German Treatment Program for Children with Aggressive Behaviour (Therapieprogramm für Kinder mit aggressivem Verhalten, THAV) aims at the therapy of children aged 6–12 years with peer-related aggressive behaviour, which results in a persistent impairment of the relationships to other children. Contrary to other treatment approaches, this intervention aims at the individual treatment of problem maintaining and moderating factors of aggressive behaviour. Depending on the individual problem maintaining factors the treatment aims to modify social cognitive information processing, impulse control, social problem solving, social skills and social interactions in specific situations.

Methods: The efficacy is evaluated both in a randomized control group design with an active control group and a within-subject analysis by comparing changes in outcome variables during an 8 week waiting phase and the subsequent treatment of about half a year using multilevel modelling. Outcome parameters are aggressive behaviour und comorbid symptoms as well as problem maintaining factors, psychosocial functioning, family burden and treatment satisfaction.

Results: On most parameters no substantial changes were found during the waiting period while strong reductions in aggressive behaviour, comorbid symptoms and problem maintaining factors could be found bot in parent and teacher ratings during the treatment phase. These reductions during treatment were significantly stronger compared to the changes during the waiting period.

Conclusions: The treatment program is very effective compared to the changes during a waiting period.

Keywords: Aggressive behavior, conduct disorder, cognitive behavior therapy, treatment study.

PM-075

A controlled clinical evaluation of the Parents Plus Children's Programme for parents of children aged 6–12 with mild intellectual disability in a school setting

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Introduction: It is well established that children with developmental disabilities are at substantially greater risk of developing emotional and behavioural problems compared to their typically developing peers and that parenting these children brings additional challenges and stresses. The aim of this study was to evaluate the effectiveness of the Parents Plus Children's Programme (PPCP) as a small group intervention for parents of children with mild intellectual disabilities.

Method: All parents of children with mild general learning disability, aged 6 to 12 years, attending a special school were invited to attend the PPCP. Thirty-eight participants volunteered to take part and completed baseline measures before being allocated to a Treatment Group or a waitlist Control Group. The programme was delivered over eight consecutive weeks by the school Educational Psychologist and Speech and Language Therapist. Follow up measures were collected from both groups. Minor programme adaptations were made using selected videos from the Parents Plus Early Years programme.

Results: Post treatment measures were completed by twenty-nine participants. A significant reduction in clinical range scores for Treatment Group participants ($n = 16$) was observed. Conversely, scores for Control Group participants ($n = 13$) increased, or remained elevated. Treatment Group gains included reductions in Parent Stress (measured by the Parent Stress Index) and Conduct Problems (measured by the Strengths and Difficulties Questionnaire) and an increase in Parental Satisfaction (measured by the Kansas Parent Satisfaction Scale).

Discussion These results suggest that the PPCP, with some minor population-appropriate adaptations, could be utilised as a community based intervention for the parents of a majority of children with mild generalised disability. Though not formally assessed a small number of the parents in this study presented with a mild learning disability themselves and these parents were able to engage in the programme with support from the school staff.

Conclusion The findings from this study point to the potential of the PPCP as a practical community based intervention that lends itself to meeting the needs of parents of children with mild general learning disabilities. This is an important area of research that requires further investigation, with a larger population.

Keywords: Parents Plus; behaviour problems; Parent training.

PM-076

Shared pleasure in early mother-infant interaction and subsequent child outcome

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Objective: To test the hypothesis that shared pleasure in early mother-infant interaction predicts better social competence as well as lower levels of emotional and behavioural problems in school-aged children.
Methods: The original sample of a larger longitudinal study was gathered from maternity health clinics. Perinatal depressive symptoms of the mothers were screened with the edinburgh postnatal depression scale (EPDS) antenatally, after delivery and 2 months postnatally and were combined to determine the perinatal depressive symptom status. Twenty perinatally depressive (D) and 18 non-depressive (ND) mothers were selected to a subsample. Feeding situations of these mother-infant dyads were videotaped during home visits when the infants were 2–3 months old. When the children were 8 years old, 29 (76 %) of the mothers participated in the longitudinal study. Fifteen mothers belonged to the perinatal D and 14 to the ND group. The mothers and 21 fathers completed the Child Behavior Checklists (CBCLs). Shared pleasure (SP) sequences, indicated by shared smiles and eye contacts, were coded from 5-min segments of the videoed feeding situations. The associations between the occurrence and mean duration of SP sequences and parental CBCL reports of the children's Social Competence (Comp) as well as Internalizing (Int), Externalizing (Ext) and Total Problem (Total) scores were examined.
Results: SP sequences occurred in 13/29 (45 %) of the segments. The occurrence and mean duration of the SP sequences were not associated with the D/ND status of the mothers. The occurrence ot the SP sequences was statistically singificantly associated with higher Comp scores in fathers' reports ($p = 0.028$) and lower Total scores in mothers' reports ($p = 0.030$) and indicatively with lower Int scores in mothers' reports ($p = 0.068$), lower Ext scores in both parents' reports ($p = 0.099$ regarding mothers' and $p = 0.052$ regarding fathers' reports) and lower Total scores in fathers' reports ($p = 0.057$). The mean duration of the SP sequences was moderately correlated with Comp scores in fathers' reports (Spearman's rho = 0.50) and inversely correlated with Total scores in mothers' reports (rho = −0.35).
Conclusions The observed associations between shared pleasure in the early mother-infant interaction and better competence and lower problem scores of the school-aged children provide support for the hypothesis that shared pleasure may serve as a protective factor during development. The findings are preliminary and need to be confirmed in a larger sample.
Keywords: Mother-infant interaction, protective factors, longitudinal studies, CBCL, EPDS.

PM-077

Parent training for preventing child conduct disorders: a pilot study in a Greek population

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Background: The need for and usefulness of effective parent training programs for children at risk of developing conduct disorder are widely documented. A manual based parent training program was developed by the University Department of Child Psychiatry, at the 'Aghia Sophia' Children's Hospital in Athens, Greece.
Objectives: The purpose of this pilot study was to examine the effect of a group intervention for parents of children with oppositional defiant disorder (ODD).
Methods: Sixteen parents (9 families, 8 mothers) of 9 children (age 3–8 years) received the parent training program. This program consists of 12 weekly group parent sessions, and aims to improve the parent–child relationship, parental confidence and to boost parental empowerment based on the principles of positive parenting. According to the semi-structured psychiatric interview for children and adolescents K-SADS-PL, the assigned diagnoses were as follows: Four children had ODD, two had co-morbid ODD and attention deficit hyperactivity disorder (ADHD), two had co-morbid ODD and depression, and one child had ADHD. Parents completed measures of parental stress, child emotional and behavioral difficulties pre- and 2 week post-intervention, as well as a client satisfaction questionnaire.
Results: After completing the program, both parents reported significantly lower levels of parental stress (Mothers: $p = 0.021$; Fathers: $p = 0.016$) and improvement in child-peer relationship problems (Mothers: $p = 0.033$; Fathers: $p = 0.036$). Mothers also reported significant decrease in overall child difficulties ($p = 0.004$), in child behavioral difficulties ($p = 0.020$) and in the impact of the latter on child's everyday life ($p = 0.003$). Participants showed moderate to high satisfaction with the program, expressing the need to be able to talk more about their child.
Conclusions: These types of parenting programs can be also useful in the Greek population since, as it was found in the present study, they seem to promote positive child behavior at least in the short term. In addition to group parent sessions, there may be a need to include parent –child sessions in order to maximize child outcomes and client satisfaction.
Keywords: Parenting program, conduct disorder, Greek population.

PM-078

A 9-year old boy as a sexual abuse victim and offender

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Introduction: It is evident in recent years that, there has been an increase in referral of child sexual abuse cases to child and adolescent psychiatry departments. Childhood is a vulnerable period that sexual development has not yet been completed. Experienced child sexual abuse in this period causes deviances in sexual/behavioral development and annihilates the mental health of children. In this case study, we present a 9 year-old boy exposing behavioral problems and then converting into an abuser. Besides, we show an extraordinary condition that how little children establish a group that its members sexually abuse each other and also spread this to other children.
Case: A 9-year old boy was referred to our department by his family with complaint of being abused anally and inappropriate sexual behaviors. It was also reported that he abused his 5-year old brother anally and he has some friends who had sexual affairs. This friend group is a gang that consisted of 1–2 year older boys and sexually abuse children. These aberrant activities began 2 years ago. The boy was sexually abused at first; however, he intentionally participated

those sexual group activities later. The father realizes the anal enlargement in both children and reports this event to a criminal authority.

Discussion: Here we present a boy who was sexually abused at an early age and then joined a gang. In this gang, sexual abuse was a norm and the boy changed his position as abuser instead of being a victim by joining that gang. It was found challenging that, children who were just elementary school students established a gang and popularized child sexual abuse. Considering such devastating effects of child sexual abuse on children, possible preventive measures should be discussed and taken.

Keywords: Sexual abuse.

PM-079

BECAN epidemiological study on incidence and prevalence of CAN in the republic of macedonia

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Introduction: BECAN Study is the biggest epidemiological study on child abuse and neglect in the Balkan region financed by the 7th Framework programme of the European Commission.

Objectives: The aim was to determine prevalence and incidence rates of physical, psychological and sexual violence in the family and the felling of negligence, as well as positive parental practices.

Materials and methods: The BECAN study was conducted in Macedonia during the school year 2010–2011 on 2586 school children age 11, 13 and 16 years and their parents. The instruments that were used were ICAST-Ch and ICAST-P questionnaires which were translated into Macedonian and culturally adapted.

Results: Results show that in Macedonia 65 % of children at least once in their life experienced psychological violence, physical violence 51 %, and about 8 % experience sexual violence. During the last year almost the same pattern of experiencing violence was present resulting in 60 % of children being exposed to psychological, 42 % of them to physical and 6–sexual violence. More than one-fourth of the surveyed children (27 %) felt like being neglected (at least once in their life), and 24 % during the last year. The study showed that the girls, more often than boys report neglect, while boys reported more often experiences of psychological, physical and sexual violence. The fact that boys experience more sexual violence (9.6 %) than girls (6 %) is not a common finding in similar studies, which is usually the opposite pattern. There are more children who experienced all kinds of violence and neglect in the urban areas than in rural areas, but there are no significant differences. The most common forms of physical violence in Macedonia are: slap in the face, slap on the buttock and pulling hair. About 5 % of children experienced severe violence in the last year, such as being beaten or hit on the head or body with a hard object. Coming to perpetrators in most cases adult male persons are perpetrating physical violence, and adult female persons (mothers) are perpetrating psychological violence. Sexual violence is being perpetrated by adult or adolescent male persons.

Conclusion: The results show that violence is widely experienced by children in their home and a great proportion of children experience severe violence and multiple forms of violence. Those are the children who should be recognized by the health and educational system and reported to the social services for further intervention.

Keywords: Psychological violence, physical violence, sexual violence, neglect.

PM-080

The predictive validity of the strengths and difficulties questionnaire (SDQ) in preschool children with regard to ADHD diagnosis in school age: a register based study.

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Background: The strengths and difficulties questionnaire (SDQ) is a brief screening instrument for psychopathology in children. This study investigates the predictive validity of the SDQ completed at age 5–6 years with regard to ADHD diagnosed at hospital or treated with central stimulants at age 6–12 years. To our knowledge, this is the first study to investigate screening properties of the SDQ in a longitudinal design with a long follow-up period.

Methods Parents and teachers completed the SDQ for 3501 children of the Copenhagen Child Cohort 2000 (CCC2000) aged 5–6 years. The children were divided into a high-risk and a low-risk group (split at the top10 % percentile) on three subscales (hyperactivity/inattention, conduct, internalizing) and impact score of the SDQ. Data from Danish registers were used to describe mental disorders diagnosed at hospitals and the prescription of central stimulants until age 12 years. These data serve as the outcome measure of this study. Putative early sociodemographic and perinatal risk factors of ADHD will be analyzed, in order to validate the use of register based diagnoses. COX regression analysis was performed and hazard ratios (HR) were calculated and controlled for gender.

Results 2.86 % of all children, who did not have a psychiatric diagnosis in preschool, received an ADHD diagnosis in school age. Approximately three quarters of all ADHD cases were boys. Top10 % scores of impact scores and thehyperactivity/inattention subscale were associated with increased risk of ADHD diagnosis in school age. Risk estimates for hyperactivity/inattention subscale, parents: HR 5.37 (95 % CI: 3.27–8.83), and teachers: HR 3.10 (95 % CI: 1.77–5.42); and for the impact subscale, parents: HR 8.09 (95 % CI: 5.29–12.36), and teachers: HR 10.80 (95 % CI: 6.66–17.49), showed that all subscales significantly predicted ADHD diagnosis in school age. Estimates of sensitivity and positive predictive values (PPV) were low-moderate. Best prediction was found for the impact scores, parents: Sens. 40 % PPV, 15.1 %, teachers: Sens. 62 %, PPV 13.9 % Putative sociodemographic and perinatal risk factors of ADHD were replicated for the ADHD group. Low maternal age, short maternal education, parents not living together at birth, low household income, low birth weight and birth complications were all statistically significantly overrepresented in the ADHD group.

Conclusion: High SDQ subscale scores in preschool identify a group of children with increased risk of being diagnosed and/or treated for ADHD in school age.

Keywords: SDQ, screening, ADHD, register study.

PM-081

Perceptions of importance children needs and quality of life in resident of Serbia

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Although the quality of life of parents is a construct closely related to family relations, there is little data on how this is related to child-parent interactions and children needs, especially in non-clinical population. For that reason, an investigation of the perceptions of children needs as well as the importance and quality of life in residents of Serbia was conducted. The perceptions of importance in children needs were investigated: tenderness and attention, trust, safety, independence, closeness, and the well-defined rules which count and four domains of the quality of life: physical health, psychological health, social relations and environmental life conditions. A cross-section of the relations among the basic variables and gender, age, educational status, employment and number of children that the subjects had.

Sample: The study was conducted on a sample of residents of Serbia of working age. The sample included 2023 participants from 33 cities, towns and villages. The mean age of participants was 39 years (43 % were male and 57 % female).*Instruments*: Parental behavior and needs of the child (Pourtois and Desmet, 2000) and World Health Organization Quality of Life-Brief (1995).

Results: Mean values on all dimensions of the perception of importance of children needs were close to the maximum theoretical values. The greatest correlations with all the children needsare placed in the domain of social relations and gender ($p < 0.05$). As the statistically significant predictors in the perception of the importance of children needs the following stand out: social relations, psychological health, gender and the issue of (non)parenthood, as well as the number of offsprin. The correlation between the number of offspring and psychological health and the perception of importance of children needs is statistically significant and negative ($p < -0.104$) while the other obtained correlations were positive ($p < 0.05$, and higher).By testing the existence of the effects of mediation we managed to find out that the correlation of the parameters of physical health and life conditions compared with the perception of importance of children needs are manifested indirectly through the social relations ($p < 0.001$). The results show that the best predictors of perception of importance of childrens needs are social relations. One of the most important findings of our research is that the basic children needs are still viewed as fundamental by the large sample of our subjects living in the currently turbulent times in Serbia.

Keywords: Children needs, quality of life.

PM-082

Mental health promotion interventions in families with depressed parents: what makes the difference

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Objectives: To examine the effectiveness of two preventive interventions on children's and their parents' outcomes in families with parental depression in Greece.

Methods: Patients with depression were invited to participate with their families. Consenting families were randomized to a preventive family intervention (Family Talk Intervention; FTI) and a brief psychoeducational discussion with parents (Let's Talk about Children; LT). Sixty-two families completed the interventions. Parents and their children filled out self-reports at baseline and at 4 months post-intervention. Repeated measurements analysis of variance was used to compare changes over the follow up period between groups. Linear regression analysis was performed to estimate the effect of independent variables on parent depression and child depression changes.

Results: There was a significant improvement in all study variables (parent depression, parent anxiety, parent-reported child emotional/behavioral problems, parent-reported child anxiety, family functioning, child emotional/behavioral problems, child anxiety and child depression in both interventions ($p < 0.001$). The improvement in parent-reported child emotional/behavioral problems ($p < 0.001$) and family functioning was greater in the FTI compared to the LT group ($p < 0.001$). The proportion of parents with poor social support decreased significantly in both groups ($p < 0.001$). On the contrast, the proportion of children with poor social support and that of families with poorparent–child relation decreased significantly only in the FTI group ($p = 0.015$ and $p = 0.001$, respectively). Linear regression analyses with dependent variable the presented changes in child depression showed that parent–child relation ($\beta = -2.25$, SE = 0.67, $p = 0.001$), family functioning ($\beta = -1.53$, SE = 0.41, $p < 0.001$) and child social support ($\beta = -3.17$, SE = 0.54, $p < 0.001$) had a significant effect on improvement of child depression after adjustment for sex, age, type of intervention and socioeconomic status. Cases with poor parent–child relation or child social support had greater levels of child depression both at baseline and follow up and the improvement in child depression was greater in those with poor parent–child relation or child social support. Worse family functioning was positively correlated with greater levels of child depression both at baseline and follow up and families with worse family functioning had a greater improvement in child depression. Changes in parent depression were not found to be significantly correlated with any variable.

Conclusion: These findings lend further support to both interventions and indicate their applicability in Greece. Improving parental depression per se may not be associated with child beneficial outcomes. Interventions targeting at specific domains of parenting, parent-child communication and support outside the family seem to be of high relevance.

Keywords: Children and adolescents; parental depression; preventive interventions.

PM-083

Maternal and infant characteristics associated with shared pleasure in early mother-infant interaction

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Introduction: Infants acquire their capacity to have and express emotions through interactions and care giving by their parents. Having experiences of shared positive emotions in interaction with the parent is essential for the infant for learning feel and express them also later in life (Werner and Smith 2001; Masten 2009). However, what features of parents and infants are associated with shared pleasure has received little attention.

Objective: To see what whether maternal interaction behaviour, maternal depressive symptoms and infant characteristics are correlated with observed shared pleasure in mother-infant interaction.

Material and method: 48 mothers and their healthy 7-month-old infants (48 % females) recruited from the database of the Population Register Center in Tampere were videotaped in free play situation. Mothers filled in the Edinburgh Postnatal Depression Scale (EPDS, Cox, Holden and Sagovsky, 1987) and the Infant Behavior Questionnaire (Rothbart, 1981). The videotapes were scored with the Emotional Availability Scales, 2nd Edition (EAS, Biringen and Robinson, 1991) for maternal sensitivity, maternal structuring, infant responsiveness and infant involvement of the parent. The amount and length of SP sequences, defined by observed gaze contact and mutual, synchronous smile or laughter, were calculated from 5 min segment of the videotapes.

Results: SP sequences occurred in 32/48 (67 %) of the segments in the total videoed sample. Median number of SP sequences in the dyads was 2.0 (quartiles 0, 5), with the range from 0 to 28. Median length of individual SP sequences was 1.0 (0.8, 1.7) seconds, with the range from 0.5 to 4.9 s. The proportion of SP sequences from the analysed segments varied from 0 to 26 %, with a median of 2 %. The number and proportion of SP moments were positively correlated (Spearman) with higher EAS scores of maternal sensitivity (r = 0.3 and 0.6), and with higher EAS scores of infant responsivity (r = 0.5 and 0.6) and of infant involvement of the parent (r = 0.5 and 0.6). The number and proportion of SP segments were not statistically correlated with maternal depressive symptoms or with maternal report on infant characteristics.

Conclusions: In this sample better maternal sensitivity and better infant social behaviour were positively correlated with shared pleasure in interaction. Interestingly, maternal report on depressive symptoms and maternal perception on infant characteristics were not found to correlate with shared pleasure. However, the findings are preliminary and need to be confirmed in a larger sample.

Keywords: Mother-infant interaction, shared pleasure, EPDS, EAS, IBQ.

PM-084
Referral sources and patterns in an outpatient child and adolescent mental health service (CAMHS) in Ireland

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Background: The vast majority of children do not develop mental health problems, at any point in time approximately 2 % of children will require specialist mental health expertise (‘Vision for Change’ 2009). But those with mental health problems do not always receive the help they need. (1) The large majority of child and adolescent mental health services are provided in community settingsAn important first step towards providing appropriate prevention and care is extended knowledge on how children and adolescents with mental health problems are referred to CAMHS teams and the outcomes of such referrals.

Aims and methods: This study aims to examine any differences or similarities in referrals received by a CAMHS team and the decision outcome. It also explores if there is any association between the type/source of referral with the subsequent decision outcome (i.e. whether accepted or not). Data was obtained from the records of a child and adolescent mental health service (CAMHS) team in Ireland. The study examined the referrals received by the team over a 3 month period (September 2012–November 2012).These referrals were analysed based on their age, gender, referral sources, referral type and decision outcomes (i.e. whether they were accepted or not).

Results: Data collected showed that a total of 98 referrals (60 new referrals, 38 re-referrals) were received in 3 month study period. Majority of the referrals were from family doctors or General practitioners (59 %; 58). Almost half (46 %) of the referrals received were accepted and forwarded for assessment. Males made up 62 % (N = 61) of all the referrals received. Majority of the referred males were aged between 5 and 8 years old (44 %; 27 males). Amongst females, most of the referred cases were aged between 13 and 16 years old (62 %; 23 females). This study also showed that males consistently outnumbered the females both in referred and accepted cases, It also suggested that ‘‘younger’’ males and ‘‘older’’ females were more likely to be referred.

No financial sponsorship was sought or obtained for this study.

Keywords: Referral patterns, child and adolescent mental health service, out-patients.

PM-085
Clinical profile Of 16–18 year olds attending the blanchardstown CAMHS

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Introduction: Blanchardstown child and adolescent mental health service (CAMHS) accepts referrals for those aged 0–16 years, living in the Blanchardstown area, who require assessment and/or treatment of mental health difficulties. Service users who reach their 16th birthday and who continue to require intervention are offered a service from CAMHS with a transfer to Adult Services occurring (if needed) after they reach 18 years. Blanchardstown CAMHS does not accept referrals of those aged 16 and 17 years and referral agents are advised to contact Adult Psychiatry Services. It is recognised both by Child and Adult Psychiatrists alike that the needs of this group are best catered for within CAMHS but such are the deficits in outpatient, day patient and inpatient facilities within CAMHS that it has not been possible to date for CAMHS to extend their referral age limit to 18 years. Adult Psychiatry Services have been historically resourced to cater for these young people, deemed adults under the 1945 Mental Health Act. It is regrettable, and all too often the case, that resourcing of services has not kept pace with legislative change. No one can fail to recognise the significance of these late years of adolescence, the years during which major mental illness emerges. This is a snap shot of those 16–18 years olds attending Blanchardstown CAMHS.

Method: The case files of service users between the ages 16 and 18 years old attending the Blanchardstown CAMHS in May 20011 were reviewed and analysed. The following were noted for each clinical case: age at first referral, age at time of study, diagnosis, key worker, number of contacts since reaching their 16th birthday and intervention(s) offered.

Results: Total number of service users aged 16–18 years 21. 11 of the 21 were aged 16 years; 8 were 17 year olds and only 2 were 18 year olds. The male female ratio was 4:3.The average age at first referral was 13.7 years. Although Blanchardstown CAMHS accept referrals form a variety of sources, this group tended to be referred by doctors (GPs, child psychiatrists and A&E physicians)The result also reviewed that the commonest presentation were mood related disorders, ADHD and those with multiple disorders (Table 1).

Primary diagnosis	Total number of cases	Main key worker (discipline)
No axis 1 diagnosis	2	Psychiatry
ASD	2	Psychiatry
Social phobia	2	Psychiatry
OCD	3	Psychiatry
ADHD	4	Psychiatry
Depression	4	Psychiatry
Multiple diagnosis	4	Psychiatry

This group of young people required significant number of clinical contacts, the most been those with depression and multiple diagnosis (Table 2).

Primary diagnosis	Number of contacts (clinic appointments) since reaching 16th birthday
No axis -1 diagnosis	8
ASD	2
Social Phobia	32
OCD	21
ADHD	50
Depression	60
Multiple diagnosis	109

Keywords: Clinical profile; camhs services.

Poster Session III. **Tuesday**.

PT-001
Vitamin D deficiency among pediatric ocd patients with pandas

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Introduction: Vitamin D deficiency has been recognized as an important public health problem worldwide. Previous studies have indicated that vitamin D deficiency is common in psychiatric patients especially in those with neuropsychiatric disorders such as autism, schizophrenia. Vitamin D is an important neurosteroid hormone and immunomodulatory agent, besides its well-known osteoblastic activity. A clinical syndrome, PANDAS, is characterized by neuropsychiatric symptoms that are triggered by Group A Beta Hemolytic Streptococcal infections. This study aimed to determine the frequency of vitamin D deficiency in pediatric OCD patients with PANDAS.

Methods: Thirty-three OCD patients with PANDAS and twenty healthy controls were enrolled to the study. Serum 25-(OH) D, calcium, phosphor, alkaline phosphatase and parathormone levels of two groups were compared. Serum 25-(OH)D levels less than 15 ng/mL were classified as deficiency.

Results: There was no significant difference between patient group and control group for serum 25-(OH)D levels. However, Vitamin D deficiency was significantly more frequent in the patient group compared to the control group (48.5 vs. 20.0 %; $p = 0.038$). The most common comorbid condition in our patient population was ADHD. Moreover, OCD patients with Vitamin D deficiency had higher rates of comorbid ADHD than those without vitamin D deficiency (87.5 vs. 52.6 %; $p = 0.027$).No correlation was found between serum vitamin D level and other variables, however, serum phosphor levels were negatively correlated with age, Alkaline Phosphatase and ASO levels, and positively correlated with Y-BOCS total score and global severity score. In addition, serum parathormone levels were positively correlated with Y-BOCS total score, compulsion score, obsession score, global severity score, and negatively correlated with ASO titers.

Discussion: This study supports the hypothesis that an association between vitamin D metabolism and PANDAS related OCD. As deficiency of vitamin D is endemic worldwide, this may explain the no difference showed in serum levels between the patients and groups. Interestingly, the blood phosphor levels of OCD patients were less than control group. For this reason, we suggest that biochemical parameters predicting metabolic bone diseases may also be more common in PANDAS patients. There is a need for prospective study to show a clear association between PANDAS and bone metabolic turnover based on autoimmune mechanisms.

Keywords: PANDAS, OCD, vitamin D.

PT-002
Methylenetetrahydrofolate reductase deficiency and associated psychopathology: two case presentations

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Methylene tetrahydrofolate reductase (MTHFR) functions as a catalyzer in the remethylation of homocysteine into methionine (1). Higher levels of homocysteine observed in MTHFR deficiency are associated with cardiovascular, cerebrovascular and peripheral vascular diseases (2). Vitamin B12 and folate act as a coenzyme in the synthesis of serotonin and the catecholaminergic neurotransmitters and S-adenosylmethionine (3–4). There have been some neuropsychological studies which attribute the general and specific defects in the intellectual functions including the attention, episodic and visual-spatial memory and abstract thinking to the folate deficiency (5–6). Accompanying psychopathological features of the two adolescent patients with MTHFR deficiency who were referred to Marmara University Medical School Child Psychiatry Outpatient Clinics from the Pediatric Outpatient Clinics will be discussed. Case 1: 13 years and 7 months old girl was admitted with the complaints of distractibility, shyness and sleeping too much. She had a remarkable outlook with her Marfanoid appearance, local hair growth on her face and being taller than her peers. In the interviews, the thought content was impoverished, concerns about the future and excessive preoccupancy with her physical appearance were prominent. The patient was taken to the follow-up and treatment with the diagnosis of attention deficit and hyperactivity disorder (ADHD), predominantly attention deficit type and generalized anxiety disorder. Case 2: 15 years and 6 months old boy admitted with the complaints of distractibility and nervousness. His Marfanoid appearance and being taller than his peers were prominent. In the interviews, there were thoughts of worthlessness, lack of self-confidence, school failure and depressive symptoms. The patient was taken to the follow-up and treatment with the diagnosis of ADHD, predominantly attention deficit type, depressive adjustment disorder and mild mental disability. In both of our cases; an arachnoid cyst in the cranial magnetic resonance imaging, vitamin B12 and folate deficiency in routine blood examinations, in addition to a homozygous 677TT mutation in the MTHFR-C677T gene analysis performed with the elevation in serum homocysteine levels were determined. Both cases have admitted to the Opthalmology Outpatient Clinics with visual symptoms. Examination of the homocysteine levels in patients with low vitamin B12 and folate levels with the presence of a Marfanoid body structure who admit to the Child Psychiatry Outpatient Clinics is essential for the children diagnosed with ADHD symptoms and accompanying cognitive function inability. Further referral of those patients to the Pediatric Outpatient Clinics in terms of diagnosis and appropriate treatment have great importance.

Keywords: Methylene tetrahydrofolate reductase, Vitamin B12, psychopathology.

PT-003

Verbal memory in children with reading disabilities

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Dyslexia is a specific learning disability which is mainly reflected in the development of reading, literacy and language skills. It is marked by interference in phonological processing, rapid naming, working memory, fast processing and automation skills that are not consistent with other cognitive abilities. Dyslexia is often associated with short-term memory difficulties and working memory, which does not include a general lack of memory processes. Primarily, just remember the sequence number of the elements leading to disruption. Memory and remember the order of simultaneous events are associated with different methods and two different processing in the two hemispheres of the brain. People with dyslexia find it difficult to remember the sequence of consecutive elements. At the same time, they are easy to remember what can be considered as a whole. Thy are more prone to visual than verbal memory materials. The aim of this paper is to examine and compare the results of immediate and delayed verbal memory in children with reading disabilities and children of regular reading. The study included 20 children with difficulties in reading (experimental group) between the ages from 9 to 12 years old and 30 children with regular reading of the same age (control group).The test also determined: the range of auditory perception (speech perception), the sequence (order) of verbal reproduction, development of grammatical, semantic understanding of messages. The test consists of 55 verbal stimulus, divided by weight into 6 subgroups requests (of syllables over disyllable meaningful, disyllable meaningless words, simple, extended to complex sentences). Test to assess verbal memory is used to examine verbal memory by the respondents were asked to give immediately repeated verbal stimulus. For delayed verbal memory test examiner need a stopwatch, as far as the first delay time of 16 s and the second time of 30 s. The candidate should remember the information that he had heard and then to repeat it only when the stopwatch.

Keywords: Dyslexia, immediate verbal memory, delayed verbal memory.

PT-004

Evaluation of visual memory in children with attention-deficit/hyperactivity disorder-inattentive type

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Background: Children with attention-deficit/hyperactivity disorder-inattentive type- have been shown to have some deficits in cognitive functions such as executive functions including working memory. It has been hypothesized that individuals with this type of ADHD have also some impairment in memoryfunctioning. Little is known about this cognitive function in ADHD -inattentive type-. We conducted this study to evaluate visual memory ability in children with ADHD-inattentive type-compared with normal developing children.

Method: Twenty children diagnosed with ADHD-inattentive type-based on DSM-IV criteria aged between 7 and 11 were compared with 20 normal developing children matched on the age and IQ. They were evaluated using the parent conners rating scale (to evaluate the severity of ADHD symptoms), pattern recognition memory task (PRM) (to evaluate the ability to recognize the patterns seen before), paired associate learning task (PAL) (to assess visual memory and new learning abilities), delayed matching to sample task (DMS) (to evaluate the ability to match the patterns to target seen before), and spatial recognition memory task (SRM) (to assess the recognizing ability of spatial patterns seen before). T test was used to evaluate the difference between the two groups in terms of visual memory variables.

Results: In terms of Paired Associate Learning task, children with ADHD -inattentive type- had significantly more errors especially in 8 shapes trials compared to normal developing children ($p < 0.05$). These children performed significantly less trials on this task than that of control group ($p < 0.05$). With regard to pattern recognition memory, spatial recognition memory, and delayed matching to sample, tasks it was found no significant difference between the two groups.

Conclusion: Based on the findings of this study it can be concluded that children with ADHD-inattentive type- had no impairment in visual memory ability, but there is some impairment in new learning task which can be related to working memory deficit which have been shown in this group of children.

Keywords: ADHD, inattentive type, visual memory, new learning.

PT-005

Attention deficit hyperactivity disorder and sleep disturbances

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Background: In clinical practice, the attention deficit hyperactivity disorder (ADHD) is often associated with sleep disturbances, but is core whether these disorders are part of ADHD (primary origin) or secondary to some of its comorbidities or medication.

Objectives: (1) To observe the relationship of the symptoms of sleep disturbances and the severity of the ADHD symptoms in patients without treatment for the same, (2) To observe the relationship of the symptoms of sleep disturbances with gender and age.

Methods: Preliminary, transversal and descriptive study of a sample of 30 patients of the ADHD Unit in the Psychiatric and Psychology Department of the Hospital Sant Joan de Déu, in Barcelona, diagnosed less than 3 months of ADHD and have never been medicated for it. In addition, participants must have an IQ above 70 and not present comorbid a Pervasive Developmental Disorder or Psychosis. The analysis variables are the symptoms of ADHD as measured by the ADHD-RD-IV version for parents and teachers, and sleep disturbances with an actigraph (ActiLife, Data analysis software ActiLife 6.5.0) measures for a temporary period of 1 week.

Results: Naïve children diagnosed with ADHD go to sleep on average at 10:56 pm and wake up at 7:40 am, finding that as age increases the children go to sleep later, and it is girls who go to sleep later than boys. That is why the total sleep time is slightly higher in boys with an average of 7:30 h of sleep. As the effectiveness of sleep is concerned, the average is 83.70 %, in next to a sleep latency of 1.9 min on average, and 24.43 awakenings per night, not finding significant differences in gender or age.

Conclusions: Children diagnosed with ADHD have a sleep effectively at the limit of what is considered appropriate because of night-time awakenings and conciliation insomnia prevents sleep when it is considered appropriate in relation to their developmental stage.

Keywords: ADHD, Child, Sleep Disturbances.

PT-006

Correlation between ADHD and the quality of life on Naïve patients

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Background: Attention Deficit Hyperactivity Disorder (ADHD)on children and adolescents is a harmful influence on the quality of life of these patients and their families.

Objective: Evaluate the quality of life on children and adolescents recently diagnosed with ADHD using the CHIP-CE-PRF Test (child health and illness profile-child edition parent report form).

Methodology: A descriptive and retrospective study was conducted on patients admitted in the ADHD Unit of St Joan de Déu Hospital, from January 2009 to December 2012. Inclusion criteria are recent ADHD diagnosis in any of its subtypes (attention, hyperactivity and combined) and has never received pharmacological treatment; have completed the CHIP-CE PRF basal (without pharmacological treatment). This test is divided into 5 subdomains (Satisfaction, Comfort, Risk Avoidance, Resilience and Achievement) values under 40 on each scale are indicative of problems in the quality of life of those children. Descriptive analysis is performed on values of each subscale and a T Student in those areas considered most influenced by this disorder.

Results: Results show a sample size of 176 patients, 74 % are male (n = 131). The average age is 9.17 ± 2.86 ranging from 5 to 17 years old (48.8 % are ADHD combined, n = 86). The most affected areas by this disorder are Achievement (74 % present problems in this area) and Satisfaction (50 %). No significant differences were found between achievement in children (<12 years old) and achievement in adolescents (≥12 years old, n = 52) (t = 0.90, p = 0.36). Children with ADHD combined present higher behavioural risk than the rest (t = 5.34, p = 0.001).

Conclusion: Children and adolescents with ADHD present significant problems in some areas of their life, most commonly those related to their academic expectations and their peer group relations.

Keywords: ADHD, quality of life.

PT-007

Relationship between the anxiety levels and the types of ADHD (combined vs. inattentive)

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Introduction: ADHD shows a profound comorbidity with externalizing and internalizing disorders. Different studies confirm a comorbidity of 20 and 25 % with anxiety disorders.

Hypothesis: There is a relationship between the type of ADHD (combined vsvs. inattentive) and the level of anxiety in children. Combined ADHD diagnosis show higher anxiety level than inattentive ADHD.

Objective: Specify the percentage of patientswith ADHD and acomorbid anxiety disorder. Analyze the distribution between primary and secondary school. Value the interaction between the subtype of ADHD and the anxiety level.

Materials and methods: Descriptive and retrospective study of naive patients from the ADHD Unit of Sant Joan de Déu Hospital who have been attended between August of 2009 and December of 2012. The inclusion criteria are the recent ADHD diagnosis, has never received pharmacological treatment and the application of STAIC Inventory, establishing the age range from 8 to 16. The relationship between anxiety disorder diagnosis and the STAIC scoring is examined. The correlation between ADHD type and STAIC-E/R is valued.

Results: Analyzing the sample of 89 patients, 73 % (n = 65) are boys and 61.8 % have an Inattentive ADHD diagnosis (n = 55). The 30.3 % (n = 27) of the patients show a comorbid anxiety disorder. According to the educational level, the 42.3 % (n = 22) of primary students and the 13.5 % (n = 5) of the secondary students show clinical level of anxiety, there is a significant difference (Chi = 8.48, p = 0.004) between primary and secondary school. No significant differences were found between the anxiety level measured by STAIC-S/T and the ADHD subtype. There is a correlation between the clinical impression of anxiety and the detection through STAIC Inventory (STAIC-T: r = 0.404, p = 0.01 and STAIC-S: r = 0.292, p = 0.01).

Conclusions: 1 of 3 children with naive ADHD diagnosis show high anxiety levels, especially for primary school students with a significant difference with secondary school. The STAIC Inventory is agood tool for identifying anxiety levels in ADHD patients. There is no relationship in our sample between the presence of anxiety and the ADHD subtype.

Keywords: ADHD, anxiety levels.

PT-008

Behavioral and emotional profiles of children and adolescents with ADHD and comorbid conduct disorder in Singapore

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Introduction: ADHD is commonly associated with comorbid conditions. This study aims to examine the behavioral and emotional profiles of clinically referred children with ADHD, and those with comorbid conduct disorder (CD) using the child behavior checklist (CBCL; Achenbach and Rescola, 2001). We hypothesized that the ADHD + CD group would score higher on the externalizing subscale and total problems score, as measured by the CBCL than ADHD-only group.

Methods: One hundred and ninety-six clinically referred children (175 males) in Singapore, aged 7–16 years old ($M = 10.42$, $SD = 1.77$), who were diagnosed either with ADHD only or ADHD + CD were included in this study. As part of their participation, they completed the AQ while their caregivers completed the CBCL. After comparing the CBCL scores between both groups, we proceeded to analyse for a cut-off score on the CBCL scales.

Results: As hypothesized, the ADHD + CD group showed more deficits in Total Problems ($M = 74.59$, $SD = 14.56$) on the CBCL scale than the ADHD-only group ($M = 66.42$, $SD = 11.06$), $t(190) = -4.18$, $p < 0.01$, showing a significantly higher cut-off score in the combined group. Similarly, they also showed more Externalizing problems ($M = 73.05$, $SD = 14.98$) than their ADHD-only peers ($M = 61.16$, $SD = 11.21$), $t(190) = -5.94$, $p < 0.01$. In terms of other CBCL subscales, children with ADHD + CD have more Thought and Social problems, than those with ADHD-only. Finally in terms of Internalizing subscales (anxious/depressed, withdrawn/depressed and somatic complaints), there were no statistically significant differences in their Internalizing subscales between groups. We further analyzed for CBCL cut-off scores that can suggest a high likelihood (specificity) of comorbid CD when assessing children with ADHD.

Conclusions: The findings indicate that in Singapore, children with ADHD with comorbid CD have-significantly higher cut-off on the CBCL in externalizing behaviors, with accompanying thought and social problems than those with ADHD-alone. Internalizing behaviors and attention problems were not shown to differentiate the groups. These results can further help to characterize the behavioral and emotional profiles that distinguish between ADHD only and ADHD with comorbid CD group. The cut-off scores on the CBCL suggest its utility to screen for comorbid CD conditions in ADHD. Clinical implications in relation to these findings will be further discussed.

References: Achenbach, T. M., and Rescorla, L. A. (2001). Manual for the ASEBA School-Age Forms & Profiles. Burlington, VT: University of Vermont Research Center for Children, Youth, and Families.

Keywords: Attention deficit/hyperactive disorder, conduct disorder, comorbidity, behavior, emotional problems.

PT-009

The sequential psychological changes and the self-establishment of social-withdrawal in adolescence in Japan

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Background: It has become a serious problem that the number of social-withdrawers has been growing in Japan. Saito K et al. (2010) defines social-withdrawal as staying indoors for over 6 months without participating in society for which mental disorders do not generally play as a major factor—there is some possibility of including schizophrenia before confirmed diagnosis. From the viewpoint of ego-identity (Erikson EH, 1959), social-withdrawers may be thought to be in the state of identity diffusionin which time perspective is lost.

Objectives: This study is a case study on a young Japanese adult who has recovered from social-withdrawal. The purpose of this study is to view the sequential psychological changes during the withdrawal and to examine the process of self-establishment of the social-withdrawal.

Methods: We conducted semi-structured interviews with the subject three times from 2011 to 2013. We administered three scales: the identity status scale (12 items; Kato, 1983), the Japanese Version of the Rasmussen's Ego Identity Scale (Miyamoto, 1978), the Japanese Version of Parental Bonding Instrument (Kitamura et al., 1993). We also conducted the landscape montage technique (Nakai, 1969) and the Family Image Test (Kameguchi, 1988).

Results: The subject was puzzled over his physical changes in the secondary sexual characteristics. He gradually came not to talk with their classmates and withdrew from society. He suffered from the rigid common sense that he should participate in society. He felt hostile towards his father and mainly talked with his mother. Since he became able to feel his body as himself, he started to try making his life better physically. And then he started to participate in the Self Help Group to practice his skill to communicate with others. Job hunting was a very hard task for him but finally he would be employed.

Conclusion: Social-withdrawers experienced the environmental change as they could not adapt, so they cannot integrate their past with their present. Once they have socially withdrawn, they will not come to understand themselves little by little. They cannot even talk with their family members. However the communication with others is necessary to restructure their identities.

Keywords: Social-withdrawal, ego-identity, adolescence psychology.

PT-010

Recovery from autism: a retrospective analysis of 20 Tunisian cases

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Introduction: Since Kanner's classic account, tremendous advances in autism research and clinical practice have occurred. However, few studies suggest healing in the prognosis of autism. Indeed, recovery in autism spectrum disorder (ASD) may be variously defined. One way is to assess an individual with ASD, after some time of treatment, in terms of special services he requires, his ability to live independently, and his social adaptation as compared to his peers. If there is no significant difference, he may be considered as recovered. Another way is to see whether specific symptoms required for a valid ASD diagnosis are present or not. The aimof this study was to examine the factors that could be related to recovery in ASD. We took into account the first clinical assessment including the initial symptoms and their severity, as well as intellectual level and characteristics of autistic individuals include intelligence, the associated disorders, life events, parental reaction to the diagnosis and their implication, the impact of therapeutic interventions and therapeutic alliance.

Method: We report 20 cases of children with autistic disorder diagnosed with the ADI-R recruited from among more than 500 cases of autistic children followed during the last 15 years at a child and adolescent psychiatry department. Recovery was retained if the CARS score was less than 18 and social adjustment comparable to those of typically developing children of the same age. Evolution and trajectories were evaluated.

Results: According to literature many factors like the absence of associated pathologies, early intervention, good relationship with parents, and emergence of language before the age of 4 years are considered to be of good prognosis. However, in accordance to our results and literature no unique healing factor can be identified. Recovery would rather be associated to a context of several factors where genetics, environment and quality of interventions are as well important.

Keywords: Autism recovery prognosis trajectories retrospective study.

PT-011

Importance of stress in development of cardiovascular diseases with the young

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Introduction: There is a growing body of epidemiologic evidence that psychosocial factors are linked to cardiovascular disease.

Subjects and methods: The study research included 471 respondent, with average age of 20. Each respondant hasfilled outa generalquestionnaire, an interviewtomonitorpost-traumaticpredictorof cardiovasculardisease in young population. Each respondent was interviewed, brief personal history noticed and following anthropometric parameters were taken: weight (wt), height (ht), BodyMassIndex (BMI), waist-to-hip ratio and measuredbloodpressure. In thelaboratorythe followingparameterswereexamined: cholesterol, triglycerides, HDL, LDL, VLDLand blood sugar level. Psychiatrist interviewed each respondent and completed brief psychiatric rating scale (BPRS). Respodents completed social adaptation self-evaluation scale (SASS), Zung self-rated depression scale (Zung scale), beck anxiety inventory (BAI) and semi-structured interview for survivors of war (SISOW).

Results: Analysis of risk factorsin our study showed that 18.7 % of young population do smoke, 34.9 % do not have physical activity, 19.5 % are overweight, 4.3 % are with high blood pressure, 2.8 % are with highblood sugar level, increased cholesterol at 13.7 % respondents and LDL at 17.6 %, while positive familyhistory noticedin19.4 % of respondents in the study. Psychologicalexamination shown that 52.5 % of them are depressedwhile 72.8 % hadtraumaticevent.

Discussion: These adverse and stressful life events experienced in sensitive developmental period for children, are risk factors for later manifestation of depression in adolescence and young adulthood, and creates difficulties in social adjustment, which was found in 15 % of respondents. 17.8 % of students on self-assessment scales is perceived as mildly anxious.

Conclusion: Young peoplewith trauma have significantly higher LDL, suggesting that presence of psycho-trauma could affect lipid disorder.

Keywords: Psychosocial stress, development of cardiovascular diseases, the young.

PT-012

Characterizing unmet needs of children and adolescents with ADHD in Europe, in their own words: the adolescent and caregiver perspective

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Objective: To obtain qualitative feedback from both caregivers of children/adolescents and adolescent patients on unmet needs of pediatric patients with ADHD.

Methods: One-on-one interviews with caregivers of pediatric patients aged 6–17 years, and adolescent patients aged 13–17 years, from eight European countries were conducted as part of a concept elicitation phase for a larger survey study. Interviews were conducted by trained interviewers in the subject's native language using an interview guide designed to elicit the impact of ADHD and its treatment on patients' lives. Interviews were audio-recorded and transcribed in English. A thematic analysis was performed using MAXQDA software, which involved coding key themes related to unmet needs identified in the caregiver/adolescent transcripts.

Results: Thirty-eight caregivers of children/adolescents and 28 adolescent patients participated in interviews. The caregiver participants represented 38 pediatric patients aged 6–17 years; 66 % were male and 87 % were currently on medication. The adolescent participants ranged from 13 to 17 years, 50 % were male, and all were currently on medication. While medication was generally considered helpful, 29 of the 33 (88 %) caregivers with children currently on medication reported that their children continued to experience symptoms while on treatment. All adolescents reported experiencing symptoms while on treatment which included being easily distracted, forgetful, restless, impatient, and impulsive. Most (84 %) caregivers reported issues at school (e.g. underperformance, disciplinary problems), as did all but one adolescent (e.g. difficulty with schoolwork, being disruptive in class, detention, and difficulty making/maintaining friendships); adolescents reported feeling frustrated with their inability to keep up with school work and connect with peers. Caregivers reported making accommodations for their children (e.g. maintaining a schedule, giving reminders, providing close supervision. ADHD was frequently reported to affect family relationships. Caregivers and adolescents expressed a desire for medication that better controlled symptoms but noted concerns that such a medication might over-subdue them and dampen their energy and personality.

Conlusions: Findings suggest that even with treatment, ADHD still may have wide-ranging impacts on children's/adolescents' lives.

Further research is needed to explore the magnitude of burden. Nevertheless, comprehensive care plans involving patient/caregiver support systems, counseling and alternative treatments may reduce some of these burdens.

This research was funded by Shire Development, LLC.

Keywords: ADHD, caregiver burden, pediatric patient burden, unmet need, qualitative research.

PT-013

Self-esteem in adolescents with schizotypal disorders

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Purpose: Investigation of the peculiarities of self-esteem in adolescents with schizotypal disorders in comparison with normal adolescents.

Participants: 28 (1st part) & 17 (2nd part) adolescents with clinical diagnosis of schizotypal disorder (F20 and F21) undergoing medical treatment in a clinic; 47 (1st part) & 23 (2nd part) adolescents never attended by a doctor on mental disorders.

Method: The study has used a diagnostic complex of tests targeted at the different kinds of self-esteem. The complex consists of two parts: 1st part includes 4 test for self-esteem (Dembo-Rubinstein self-esteem test, self-description, evaluation of work, Wessman A. and D. Ricks self-esteem test); 2nd part consists special modification of Dembo-Rubinstein self-esteem test with scale of age and procedure of ideal self-esteem.

Results 1st: Revealed high consistency of results on 4 using tests. Self-esteem of adolescents with schizophrenia is less consistent than normal adolescents of the same age and sex. Low self-esteem is highly correlated with the presence of negative responses in the self-description in patients with schizotypal disorders (results are $p < 0.01$—significant using Pearson criterion).

Results 2nd: Normal adolescents are satisfied with their age (the real and the ideal of the same age), patients with schizotypal disorders do not constitute a homogeneous group in evaluating your ideal age. Patients compared with the normal tendency to give inflated ideal evaluation in self-esteem (results are $p < 0.05$—significant using F-test criterion).

Conclusions: Adolescents with schizotypal disorders in both parts of investigation demonstrate significant differences with normal adolescents in self-esteem. The methods used and their modification can be effective for the diagnosis of the qualitative features of self-esteem adolescents with schizotypal disorders.

Keywords: Self-esteem, adolescent, schizotypal disorder.

PT-014

Critical period in speech and language development: the consequences of untimely stimulation

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Great variety of human personalities, skills and behavior is undoubtedly a consequence of uniqueness of the human brain. These fascinating neurobiological differences among people originate from the hereditary and environmental causes. The influence of environmental factors on the developing brain, is the most seen during the critical period in the development of certain functions. The critical period for language development is up to 5 years of age. This paper presents the case study of a boy who came first time to the Institute for Experimental Phonetics and Speech Pathology to see a speech therapist at the age of three. At that time he had about 20 words and his understanding of speech was on elementary level. After observation he was diagnosed with developmental dysphasia. He was advised to start the intensive audio linguistic treatment. As they were a low income family from rural environment they had no opportunity to undergo the speech and language treatment and they missed the critical period for speech and language acquisition. Next time he came to the Institute for Experimental Phonetics and Speech Pathology when he was 6 years old and the global speech and language development was very poor. His speech was incomprehensible because of the huge deficit on phonological and grammatical level. Psychological testing has show disharmony in specific cognitive functioning (average on manipulative scale and subnormal on verbal scale). At that time he had started to see speech therapist every day. He advanced in the area of vocabulary and in the use of grammatical categories, on the syntax level, on the level of the quality of articulation, pragmatics level and on senzorymotor level. He had adopted the basic elements for reading and writing (voices analysis and synthesis). Linguistic and conceptual structures were not sufficiently developed and he had great difficulty in understanding abstraction. Progress in terms of other functions necessary for learning such as attention and concentration have been also noticed. Long-standing practice of working with dysphasic children showed that early initiation of treatment even before the second year leads to a proper speech and language development, behavior and learning. This case supports the notion that when a stimulus fails at a critical period for the speech and language development we face the difficulties with speech and language development which have negative impact on the socio-emotional development, behavior and learning.

Keywords: Early stimulation, critical period for speech and language development, speech and language development.

PT-015

One year follow up of a sample of first-episode psychosis: comparison of adolescent and adult onset groups

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Introduction: A number of older studies have found that early onset (EO) psychosis has a worse outcome than adult onset (AO) psychosis. However recent studies failed to demonstrate clearly a worse outcome for EO patients. The aim of our study is to compare clinical and outcome characteristics of 52 EO and 38 AO patients 1 year after their inclusion in a clinical epidemiologic population-based cohort study of first-episode psychosis.

Method: Cross-sectional study of 90 consecutive patients presenting first psychotic episode were assessed for demographic and illness characteristics such as severity of psychotic symptoms (CGI-SCH), global assessment of functioning (GAF) and psychopathology (PANSS). They also have been interviewed on a cognitive battery (CPT, Stroop, TMT, TAVEC, WISC/WAIS), a battery of neurodevelopment markers: neurological soft-signs (NES), premorbid adjustment (PAS) and outcome variables including symptom severity, global functioning, disability and use of services. Inclusion criteria for this study were: two or more psychotic symptoms; age between 7 and 65 years; less than 6 months since the first contact with the medical service; and less than a year of symptoms' evolution. Two groups were created depending on the age: EO = 52 and AO = 38 We perform mean differences tests to analyze continuous variables (t-Student test) (SPSS 19.0).

Results: At baseline early onset patients were more symptomatically compromised, presenting higher punctuations in negative and general PANSS subscales ($p < 0.005$, $p < 0.001$) and in CGI positive ($p < 0.031$), negative ($p < 0.014$), depressive ($p < 0.018$) and global subscales ($p < 0.000$). The early onset group present significant worse premorbid adjust in adolescent subscales of PAS scale ($p < 0.01$). However and as other results already showed in recent literature, these initial baseline clinical differences were no longer significant at the one-year follow-up. The early onset group improves more than the adult onset one's in most of the clinical subscales. Another important result is, although both the adult onset and the early onset group improve in global functioning at 1 year, the early onset group shows a best global adjustment (GAF) ($p < 0.001$)We also asses the use of services including treatment sessions with psychologist and psychiatrist and number of admissions in day hospitals or total admissions. These help us to understand the results. Comparing the use of services between de two groups we find that the that early onset group uses more services that the adult onset group: psychiatrist sessions ($p < 0.003$) psychologist sessions ($p < 0.05$), admissions in day hospitals ($P < 0.001$)and total number of admissions in hospitals ($p < 0.069$).

Conclusions: Our results indicate that adolescent-onset and adult-onset psychosis have similar prognostic trajectories. Intensive treatment in early onset psychosis seems necessary to achieve the same outcome of the adult onset group.

Keywords: Early onset psychosis, outcome.

PT-016

Autism spectrum disorders in females: a retrospective clinical review

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Background: The number of children diagnosed with Autism Spectrum Disorders (ASD) has been increasing over the last decade. Although it is accepted that ASD is more common in males, females can present as a diagnostic challenge. This may lead to a delayed diagnosis in females and subsquently a delay in access to services and educational supports.

Objective: The aim of this study is to compare if and how females diagnosed with ASD by a community based Pervasive Developmental Disorder Team differ to the males.

Method: A retrospective case review of 240 children functioning within a normal intellectual range who were assessed between 2008 and 2011 subsquently diagnosed with ASD was carried out. Variables examined included the age at first assessment, age at diagnosis, the length of time between assessment and diagnosis and the outcome of the autism diagnostic observation schedule (ADOS). SPSS version 20 was used to analyse the data.

Results: 206 males and 34 females were identified. The average age of males at time of assessment was 7.4 years compared to 8.3 years for males, although this difference was not statistically significant ($p = 0.08$). There was a significant difference in age at diagnosis (in months) between males ($M = 95.8$, $SD = 34.4$) and females ($M = 112.7$, $SD = 41.2$) $t = (238) = 2.57$, $p = 0.01$. Females were found to have a longer time to diagnosis compared to males ($p < 0.05$). In this sample 26 % of female compared to 6 % of males had a false negative ADOS ($p < 0.05$).

Conclusion: The findings have highlighted that within a clinical setting females continue to be a diagnostic challenge which may lead to a delay in diagnosis. Further research is required to clarify the female phenotype of ASD and to determine which screening and diagnostic tools are more sensitve in identifying this cohort.

Keywords: Autism spectrum disorder, female, assessment.

PT-017

Factor structure of the childhood illness attitude scales (CIAS) in a population-based sample of 11–12 year old Danish children: The Copenhagen Child Cohort (CCC2000)

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Background: Health anxiety refers to apprehension and worry regarding one's health. This anxiety is based on the misinterpretation of bodily sensations believed to be indicative of serious disease. The prevalence of severe health anxiety in children is unknown which may be related to the lack of specific diagnostic criteria designated for children and adolescent and the substantial lack of clinical assessment and screening tools. The Childhood Illness Attitude Scales (CIAS) is a 35-item self-report measure based on the Illness Attitudes Scales, designed for use with school-age children. Arecent factor-analytic investigationhas shown that the CIAS is best conceptualized as comprising four factors: fears, help seeking, treatment experience, and symptom effects.

Objective: To perform a confirmative factor analysis of the CIAS based on data from a large, Danish, population-based sample of children aged 11–12 years.

Methods: The CIAS was administered as part of a larger battery of questionnaires in the 11–12 year follow-up of the Danish birth cohort: Copenhagen Child Cohort, CCC2000.

Results: CIAS data was obtained on 1883 children. Preliminary analyses showed an average CIAS total score of 51.93 ($SD = 7.16$) where scores ranged from 33 to 82 out of a possible range of 33–99. Additional item descriptive statistics, internal consistencyand results of the confirmative factor analysis will be presented.

Perspectives: Examination and further validation of the factor structure of the CIAS will provide additional insight into the construct of health anxiety as it relates to school-age children. This will inform our understanding of the mechanisms underlying childhood health anxiety and allow for comparison with those underlying expressions of health anxiety in adulthood. Furthermore, this could serve to guide efforts to establish age-appropriate assessments for childhood expressions of excessive health anxiety.

Keywords: Health anxiety, psychometrics, validity, factor analysis.

PT-018
Suicide in the children of Ireland from 2003–2008: a mixed method study

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Background: In tandem with global trends, Ireland has regrettably witnessed an increase in suicide by its children within the past two decades. Despite its increasing prevalence, research into childhood suicide in Ireland remains scant, with an almost complete focus on macro-level data.

Objective: To voice the stories of the suicides of fourteen children as told by their caregivers, siblings and friends. It is anticipated that a progression will be made from an awareness of statistics only, towards developing a deeper understanding of this important issue.

Design and methods: Utilising a Psycho-biographical Autopsy template and a grounded theory approach, analysis of qualitative interviews with a volunteer sample of suicide-bereaved parents, siblings, and friends, along with personal documents (diaries/letters/notes) belonging to the deceased will identify age-related themes concerning adolescent risks for suicide, as well as factors independent of age, such as severe mental illness. Results from the qualitative analyses will inform the exploration of quantitative data derived from standardised semi-structured interviews relating to clinical, psychosocial, and inter-personal relationship factors of the deceased.

Results: Themes to emerge include risk factors of: peer/adult/statutory violation, displacement, lack of connectedness, mirroring/clusters, humiliation, mental distress, substance abuse, and family history of mental illness and suicidality. Conclusions: This report is timely, exclusive, and the first of its kind in its exploration of child suicide in Ireland. It offers a holistic exposition that delves into the biological, sociological, and psychological domains of the suicidal process that could not be explored by a Psychological Autopsy alone.

Keywords: Childhood suicide, psycho-biographical autopsy, grounded theory, risk factors.

PT-019
Identifying demographic and language profiles of children with a primary diagnosis of attention deficit (hyperactivity) disorder

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Aims: As the language and communication presentation of children with ADHD is highly complex, this study aimed to explore the demographic and language profiles of 36 school-aged children with a primary diagnosis of AD(H)D attending a child and adolescent mental health service. A secondary aim was to discern whether the children's language performance on testing bore any relationship to their subtype diagnosis of AD(H)D (i.e. inattentive, hyperactive/impulsive or combined). Profiling these children's skills may help to elucidate the nature of language functioning in this client group. Demographic variables within this clinic population were also of interest.

Method: Thirty-six children aged between 9 and 12 years were assessed on formal language tests in the areas of receptive and expressive language, receptive vocabulary and reading ability. All children were assessed over three 1-hour sessions by a speech-language therapist (SLT) and an SLT student. The profiles of all 36 children were analysed to ascertain (i) demographic variables (ii) whether an overall pattern of language functioning could be identified across the group as a whole and (iii) whether subtype presentation had any bearing on language performance on testing.

Results: Demographic variables of this cohort included a predominance of males, a predominance of the combined subtype of AD(H)D and the majority having a secondary clinical diagnosis, including for example Autistic Spectrum Disorder. Analysis revealed some common trends in the overall performance of the group, but a general AD(H)D-specific language profile was not easily discernable. Over 70 % of the sample cohort had language difficulties as assessed on a popular standardized language assessment, with half of these having both receptive and expressive language impairment. A third of the sample showed some levels of reading impairment, while only a fifth of the cohort demonstrated vocabulary comprehension difficulties on testing. There was some correlation between performance on receptive language assessment and performance on a vocabulary comprehension test. Particular AD(H)D subtype performances were not obvious, yet there were some individual profiles that prompted more in-depth consideration of a child's overall presentation, and as related to a diagnosis of AD(H)D in general.

Discussion and conclusions: The complexity of the language profiles of children with a primary diagnosis of AD(H)D is played out in our data, with heterogeneity of this clinical population an obvious feature. Male dominance and secondary diagnoses featured heavily among the cohort, the latter confounding any generalisations of AD(H)D-specific language profiles to be made. However, there was enough evidence of patterns of performance to allow us to clinically plan more carefully in designing language assessments and interventions for this client group, within the context of a multidisciplinary team. Implications for further research and practice in this area are discussed.

Keywords: AD(H)D, language, demographic, impairment.

PT-020
Enduring Consequences of Terrorism: The Psychological Impact of a Terrorist Attack on Female University Students

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Background: Terrorism has long been associated with significant psychiatric morbidities, with some previous literature reporting survivors at increased risk of mental health problems than exposure to any other disaster.

Objective: The aim of current study is to examine the prevalence of post-traumatic stress disorder, depression, and suicidal ideation in a distinct population group who has had a direct exposure to terrorist attack and belong to community who has seen an escalation of these terrorist attacks in last 5 years, and exposed to natural disasters as well. Other aims of the study were to examine risk association of age, physical injuries, loss of consciousness, past psychiatric history, and effect of proximity or severity of exposure.

Method: Participants were recruited through open invitation on the first anniversary of October 20 2009 terrorist attack targeting female university students.
Instrument: The date for this study was extracted from part of large study, where many scales were used, but for the purpose of this study, we use GHQ, IES, HSCL-25 and Urdu version of DSM-IV based questionnaire. From the participants demographic characteristics we use age, physical injuries, loss of consciousness, past psychiatric history and location at time of terrorist attack as our explanatory variables.
Results: The prevalence of PTSD, depression and suicidal ideation was reported to be 41 %, 61 % and 24 % respectively. Late adolescent (16-21) group was more at risk of developing PTSD, depression and suicidal ideation. The diagnosis of PTSD was significantly related to diagnosis of depression and report of suicidal ideation. Participants at location 2, who have been involved in rescue and have witnessed the chaos generated in the immediate aftermath of TA, reported high level of distressing, low mood symptoms and suicidal ideation.
Conclusion: It has been noted that one year after having had exposure to a terrorist attacks, the psycho-pathological consequences remains significant in a population that has been exposed to ongoing TA threats and natural disasters.
Keywords: PTSD.

PT-021

The relationship between primary complaints and psychiatric disturbances of adolescents who were refferred to marmara university child and adolescent psychiatry outpatient unit

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Objective: As puberty is a psychosocial and sexual maturation processes caused by physical and emotional processes, it is an important time period of growth. During this period, besides biological and genetic factors, psychosocial factors also have a significant role. With the acceleration of cognitive development, increment in impulsive and emotional intensity, re-exacerbation of preoedipal and oedipal conflicts, choice of profession, established relationships with the opposite sex, separation from the parents and individuation, adolescents experience specific difficulties and conflicts during this period when the formation of identity is also completed. Due to the lack of clear boundaries between periods (early, middle and late) of adolescence, emotional lability, decreased interest in previously pleasurable activities, novelty and more intense stimulus seeking (such as increased risk-taking, innovation, and drug-food consumption behavior) and risky behaviours bring challenges about the definition of the 'normal' and the 'normal adolescent' concepts. In this study, we aimed to separate the problems specific to adolescence from the clinically significant disorders, by driving from the complaints bringing the child to the hospital.
Method: We retrospectively evaluated application files of adolescents between the ages of 11–17, who referred to Marmara University Training and Research Hospital, Child and Adolescent Mental Health Department on September 2010 to August 2012.
Results 1373 patient refferrals were examined; 544 (39.6 %) of them were female and 829 (60.4 %) were male. The mean age at the refferral was 159.87 ± 24, 77 months. At the refferral in order of complaint frequency, 32.6 % were academic failure and attention problems, 12.7 % were hypreactivity and defiance. The diagnosis at initial examination were; 30.2 % ADHD, 12.2 % anxiety disorders and 11.8 % mental retardation. Any psychopathology was not observed or there were problems specific to adolescence on 6.6 % of adolescents. During the follow-up; 27.5 % of adolescents were prescribed methylphenidate and 13.8 % SSRI treatments as medication, whereas 18.2 % were taken into individual psychotherapy and 13.5 % were directed to special education.60.6 % of the patients, were treatment-compliant (has attend at least 3 follow-up interviews after the first examination).
Discussion: Considering the impact of adolescence on shaping the adult behaviours, early evaluations, necessary precautions and interventions have great importance in this period.
Keywords: Adolescence, outpatient.

PT-022

Long term effectiveness of electroconvulsive therapy in adolescents with resistant schizophrenia spectrum disorders

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Objectives: The aim of the present study is to investigate long-term effectiveness of Electroconvulsive therapy (ECT) in a sample of adolescent diagnosed with resistant schizophrenia spectrum disorders (SSD).
Methods: 15 patients diagnosed with SSD between 2003 and 2010 (schizophrenia and schizoaffective disorder, DSM-IV criteria) treated with ECT when they were under 18 years old (ECT group), were compared to a sample of 15 patients, also diagnosed with SSD, treated only with antipsychotics (non-ECT group) and matched by gender (53.3 % = female), diagnosis (76.7 % = schizophrenia; 23.3 % = schizoaffective disorder), and duration of illness (mean = 5.3 years; range between 2 and 11 years). Patients were referred for ECT owing to resistance to treatment (n = 12) or catatonia (n = 3). Data related to characteristics at baseline was gathered retrospectively from medical records. They were assessed at follow-up (range between 2 and 9 years) using the positive and negative syndrome scale (PANSS), the clinical global impression (CGI) scales and the global assessment of functioning (GAF).
Results: Patients in the ECT group were younger at the onset of the illness (mean age: ECT = 15.2 ± 1.5; non-ECT = 16.2 ± 0.6;p = 0.031). They were also more severe at baseline measured with the PANSS mean total score (ECT group = 79.4 ± 15.4; non-ECT group = 66.3 ± 7.7; p = 0.007). Regarding the subscales of the PANSS, the mean General scores were also higher in the ECT group (p = 0.007), but there were no significant differences in the mean Positive (p = 0.943) and Negative (p = 0.058) scores. It follow-up there were no differences between groups using the mean CGI scores (ECT = 3 ± 1, non-ECT = 2.93 ± 0.8; p = 0.848), and the mean GAF scores (ECT = 58.1 ± 9.3, non-ECT = 61.1 ± 9.5; p = 0.392). The mean PANSS total score (ECT = 49.8 ± 9.7 non-ECT = 43.3 ± 7.2; p = 0.049) and General scores (ECT = 25.7 ± 4.9 non-ECT = 22.2 ± 2.7; p = 0.025) were slightly higher in the ECT group, but the Positive (ECT = 10.3 ± 2.4 non-ECT = 9 ± 2.4; p = 0.153) and Negative (ECT = 13.9 ± 3.8 non-ECT = 12 ± 3.5; p = 0.178) mean scores were similar. The degree of

improvement between baseline and end-point (measured by the percentage of reduction in the PANSS) was similar in both groups (ECT = 34.8 ± 19 %, non-ECT = 34.2 ± 11 %, p = 0.923).
Conclusions: Patients referred to ECT were more severe at baseline and younger at the onset of the illness. Despite this, global functioning and Symptom severity are similar at follow-up, but for the General subscale scores. ECT for resistant or catatonic SSD adolescents seems as effective as treatment with antipsychotics in non-resistant patients in the long-term follow-up.
Keywords: Schizophrenia, Electroconvulsive therapy, Psychosis, adolescents.

PT-023
Diagnostic categories and treatment modalities in adolescents, referred to marmara university hospital psychiatric emergency service

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Objective: Situations that require urgent interventions; in which the emotional and behavioural symptoms are a thread for the patient himself or the other people, can be identified as "Psychiatric Emergencies". In adolescents, besides the difficulty of determining "the normality" notion, risky behaviours that are very common in this period (like suicide, substance abuse, self mutilation, etc.) pose significant challenges in emergency settings.
Method: The records of 11–17 year old adolescents, who were referred to Marmara University Hospital Child and Adolescent Psychiatry Consultation Unit from Marmara University Hospital Emergency Service between September 2011 and August 2012 were investigated retrospectively.
Results: 122 teenagers' records were investigated; 84 (68.9 %) of them were girls, and 38 (31.1 %) were boys. Mean age was 185.26 ± 16.62 months; 66 % of the cases were between 14 and 16 years old at the time of referral. 56 % of adolescents were living in the same district as the hospital. 28 % of the youth were refferred because of suicide attempt, and 19 % of self-harm. After the initial examination at the emergency room, the diagnostic categories were established as, 1.6 % "normal adolescence"; 24 % impulsive suicide attempt; 20 % mood disorders and 14 % anxiety disorders. As treatment interventions, 21 % of the adolescents were prescribed multiple medications; 11 % were prescribed an atypical antipsychotic agent only; and % 41 were not put on medications.
Conclusions: It appears that suicide attempts and self-harm are the main complaints (almost half of all referrals) in referral to Marmara University Hospital Child and Adolescent Psychiatry Emergency Service Consultation Unit. It's of great importance to determine the risk factors for these complaints; and take precautions to prevent them; and keep the youth alive and healthy.
Keywords: Adolescence, emergency.

PT-024
Adolescents exposed to suicidal behaviour of others: prevalence of self-harm and associated psychological, lifestyle and life event factors

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Background: Self-harm among adolescents is a major public health problem and there is evidence for the clustering and contagion of adolescent self-harm within peer and family groups. The aims of the study were to examine associations between exposure to suicidal behaviour and reporting own self-harm. Sub-groups of adolescents with different histories of exposure to suicidal behaviour and own self-harm were compared in terms a broad range of factors from lifestyle, life event and psychological domains.
Methods: A cross-sectional study was conducted, with 3,881 adolescents completing an anonymous questionnaire as part of the Child and Adolescent Self-harm in Europe (CASE) study. 52 % of the sample were girls and the majority (53 %) were 16 years old. Information was obtained on history of self-harm, life events, and demographic, psychological and lifestyle factors.
Results: There were strong associations between exposure to suicidal behaviour of others and reporting own history of self-harm (O.R 8.06; CI 6.20–10.47). Among those adolescents unexposed to suicidal behaviour of others, self-harm was associated with higher levels of depressive symptoms (OR1.10; p = 0.035), less use of problem-oriented coping (OR 0.81; p = 0.026) and various stressful life events. Those exposed to self-harm of others but not reporting own self harm shared many risk factors with those with a history of self-harm and self-harm thoughts were common, reported by 28.8 % of this subgroup. Those both exposed to self-harm of others and reporting own self-harm had highest prevalence of all stressful events with the exception of school problems, had poorest coping and lowest self-esteem, highest impulsivity and drug use.
Conclusions: Factors associated with self-harm differ between those adolescents exposed and unexposed to suicidal behaviour of peers or family members. Adolescents exposed to suicidal behaviour of others are particularly burdened. Knowledge of the factors associated with vulnerability and resilience to self-harm in this high-risk group can inform school-based intervention programmes promoting positive mental health.
Keywords: Self-harm; adolescent.

PT-025
Clinical and demographic characteristics of patients admitted in a child and adolescent psychiatric ward: a five- year report

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Background: Computerized or pen and paper forms of data registration in clinical settings have an important role in gathering comprehensive information being used in service planning. This study considers the clinical and demographic characteristics derived from a system of data registration in an academic child and adolescent psychiatric ward, Roozbeh Hospital., Tehran, Iran.
Methods: In a cross-sectional descriptive study, from 2004 to 2009, all of the children and adolescents admitted at the ward for the first time were recruited. Besides accomplishing standard assessments and

history taking, detailed clinical and demographic characteristics were registered through completing a researcher-made comprehensive questionnaire. The questionnaires were completed by residents of psychiatry and checked by fellows of child and adolescent psychiatry. All completed forms were rechecked by board certified child and adolescent psychiatrists and if there was any missing or wrong data,-they were returned to the residents for further correction or completion. Statistical analysis were done using the ANOVA, K2 and linear regression analysis.

Results: The mean age of the patients (no = 192) was 15.2 + 2.36 years. 55.8 % of them were boys. The mean duration of hospitalization were 40.12 + 16.95 days. The most common disorders were bipolar mood disorders, attention deficit hyperactivity disorder, and autistic spectrum disorder, respectively. The two latter disorders were significantly higher in boys than girls ($P < 0.05$). The duration of hospitalization and the impairment in functional level were higher in boys than girls, as well($p < 0.05$).The most comorbid disorders were bipolar disorders and attention deficit hyperactivity disorder. The prevalence of reported symptoms was correlated with the criteria of the diagnosed disorders. There was a 3 year duration from the incidence of the psychiatric disorders to the first psychiatric referrals in 30 % of the cases.

Conclusions: Implementing a more precise system of data registration provide appropriate and useful information on symptoms distribution and prevalence of psychiatric problems. These information are fundamental for service planning and academic and research programs.

Keywords: Clinical,demographic, characteristics, psychiatry, child and adolescent, data registration.

PT-026

Intervention different of complexities in a high risk and psychotic adolescent sample: a 2-years longitudinal study

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Objective: In the last 20 years the psychiatric research has been focused on the study of the risk phase of psychosis: the aim was to identify the sensitive and specific diagnostic criteria for early recognition and intervention efforts. The goal is to investigate the relation between different treatment options usually offered in our unit and their correlation with clinical progress and evolution of adaptive functioning after 2 years of follow-up.

Methods: 37 patients, aged 12 and 18 years, referred to the Department of Neuropsychiatry("Sapienza"—University of Rome) during the first 6 months of 2010 were enrolled: 24 individuals received a diagnosis of psychosis, 13 met ultra-high risk criteria. At baseline and at follow-up, they were evaluated using the SIPS/SOPS and PANSS. Variables related to overall functioning, genetic vulnerability and socio-environmental risk factors were collected. At follow-up, data about the type and complexity of intervention were collected using the pattern of care schedule (medication, psychotherapy, and/or rehabilitation). A descriptive analysis was executed and correlations were performed between several clinical variables (diagnosis, test scores, and type of treatment) and outcomes (remission or persistence of symptomatology).

Results: At 2 years of follow-up in the psychotic sample 19 individuals diagnosed with psychosis received integrated treatment, 2 received only drug therapy. 9 continue to experience psychotic symptoms at follow-up whereas 14 individuals remitted from frank symptomatology (8 individuals diagnosed according to subtype of the SIPS scale, 4 did not present any symptoms or genetic risk). In the high-risk sample, 46 % received integrated treatment, 54 % received a single intervention. 1 subject made the transition to psychosis (rate of transition: 8 %). The clinical condition was stable in 77 % of cases and about 15 % of individuals were no longer in the 'psychotic risk area'. We also obtained significant correlation between following socio-demographic variables: the clinical outcome and complexity of the intervention; the type of treatment and Gaf score at baseline (inverse correlation); high percentage neuropsychiatric disorders and Disorders Axis II in comorbidity; EEG changes and negative symptoms (inverse correlation); consultations prior to hospitalization with symptoms of disorganization but inverse correlation with substance abuse.

Conclusions: The majority of adolescents in the HR group continued to experience symptoms of risk after 2 years of receiving a "non-focused" treatment. In the psychotic group there was highly clinical variability. The data suggest, however, that a very early intervention may have greater effect for HR adolescents but also support the notion that research still conducted to date may help to identify a clinically useful concept (the "HR paradigm"), without allowing a recommendation for any specific approaches.

Keywords: UHR, Psychotic Adolescents, treatment, transition.

PT-027

Non-suicidal self-injury (NSSI) and attitude toward death among adolescent inpatients

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Objective: We aimed (1) to analyse clinical features of Non-Suicidal self-injury(NSSI) in a sample of adolescent inpatients, (2) to identify the prevalence of DSM-IV Axis II diagnoses and comorbid mood disorder in the sample, (3) to study the relation between NSSI and "death thoughts/attitude toward death", in order to identify a potential high risk group.

Background: NSSI is an increasing mental health problem concerning teens in community-sample surveys, with high prevalence among adolescent inpatients. A matter of controversy is the relation between NSSI with no suicidal intent and "suicidality". According to epidemiological studies, a proportion of self-harmers varying from 28–41 % will also attempt suicide (1); yet many fundamental aspects of the significant but uncertain overlap between self-harm and suicide risk in severely ill adolescents remain unknown.

Methods: The study included a sample of 70 adolescent inpatients (54 % F; 46 % M), aged 11–19.All youths who presented NSSI over a 12-month period preceding admission were included.

Measures: K-SADS-PL (DSM-IV Axis I); SCID II to evaluate the personality disorder; children's depression inventory (CDI) (3) to assess the depressive symptomatology; multi-attitude suicide tendency scale (MAST) (4) to assess attitudes toward life and death.

Results: In our sample 61.2 % of the subjects had injured themselves using at least 5 modalities."Cutting" was the prevalent modality. 87.2 % of the subjects met the criteria for borderline personality disorder (BPD) diagnosis. The significant, though not exclusive, association between BPD and repetitive NSSI in adolescents is reported in many studies, implying a common psychopathological pathway (5–6). The data show a strong relation between depressive symptomatology and NSSI: 61.5 % of the subjects were evaluated "above the clinical threshold" for depressive symptom in CDI and were significantly more likely to exhibit multiple types of NSSI and severe repetitive conducts. Severity and frequency of self-harm were significantly associated with low rates in the sub-scale "Attraction to Life" of the MAST.

Conclusions: Adolescent units are admitting more and more patients presenting severe psychopathology and self-harm. Identifying patients at risk for suicide is a major task for adolescent psychiatry. We speculate that a peculiar association of *younger age- "borderline personality" features-depressive mood-low attraction to life* highlights a potential high risk group for suicide attempts.

Keywords: Adolescence; inpatients; non-suicidal self-injury (NSSI).

PT-028

Cognitive distortions, executive functions, and attentional bias in children with anxiety disorders

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Aim: The aims of the present study were to examine the cognitive distortions, certain executive functions, and attentional bias in youth with anxiety disorders and compare them with those of a control group.

Method: Thirty children and adolescents with a diagnostic and statistical manual for mental disorders 4th version (DSM-IV) diagnosis of an anxiety disorder (generalized anxiety disorder, separation anxiety disorder, social anxiety disorder, specific phobia, anxiety disorder—not otherwise specified)were included in the anxiety group (AG). The second group, control group (CG), consisted of 17 children and adolescents who were free of any psychiatric disorder. DSM-IV diagnoses were established for the AG and excluded for the CG by using the schedule for affective disorders and schizophrenia for school-age children/present and lifetime version (K-SADS-PL). All children and adolescents completed state trait anxiety inventory for children (STAI-C) and children's negative cognitive error questionnaire (CNCEQ). All participants underwent wechsler intelligence scale for children-revised form (WISC-R), wisconsin card sorting test (WCST), stroop test, trail making A and B Tests, to examine executive functions; and Dot-Probe Test to examine attentional bias.

Results: In the AG, the age range of the children and adolescents were between 8 and 17 years (mean = 11.8 ± 2.6 years), girls constituted 52 % of the group. The two groups were comparable with respect to age and gender. The most common anxiety disorder in the AG was Social Anxiety Disorder. The children and adolescents in the AG group had significantly higher scores in STAIC and CNCEQ. Although WISC-R Total and Performance Subtest scores were similar in both groups, WISC-R Verbal Subtest scores were significantly lower in the AG. The participants in AG had lower scores regarding "failure to maintain set" in WCST and "focusing attention and selective attention" in Stroop Test, although statistically insignificant. Dot-Probe test didn't reveal significant group differences.

Conclusion: In the self report questionnaires, the children and adolescents with an anxiety disorder had more frequent cognitive distortions. Like many other anxious children, the participants in the AG had difficulties in social communication and verbal expression; accordingly the WISC-R Verbal Subset Scores were significantly lower when compared to CG. Although the participants in the AG had dysfunctional scores in some parameters of the executive skills, they failed to be significant between groups.

Keywords: Anxiety disorders, cognitive distortions, executive functions, attentional bias.

PT-029

Side effects of psychopharmacology treatment on ADHD Naïve patients

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Background: Attention deficit hyperactivity disorder (ADHD) could have a well-made response to psychopharmacology treatment. Improving the main symptoms of ADHD as attention deficit and hyperactive impulsive behaviour.

Objective: Evaluate the most common side effects on patients with ADHD recently diagnosed who start a psychopharmacology treatment for the first time.

Methods: Retrospective and descriptive research by reviewing medical records. It is obtained from patients of ADHD Unit of Sant Joan de Déu Hospital during a period of time from January 2009 to December 2011. Representative test amount the following inclusion/exclusion criteria: patients aged between 5 and 17 years old, recently diagnosed and without previous psychopharmacology treatment (Naïve patients). Constants (weight, height, blood pressure, heart rate) should be analysed before starting psychopharmacology treatment and 1 month later. These constants are always measured by the same person from the nurse's department.

Results: Data are obtained from representative sample amount of 111 patients, 74.8 % male (n = 83). The average age is 9.21 and DE: 2.65. Weight average is 36.42 ± 13.99 kilos (ranging from 17 to 82). Basal height is 1.23 ± 0.43 metres, basal BMI is 26.53 ± 9.57, heart rate average is 77.5 ± 14.1 bpm., SBP blood pressure average is 101.91 ± 12.1 mmHg. and DBP blood pressure average is 63.04 ± 9.1.Also, 60.6 % of patients receive OROS MPH treatment whereas 29.8 % receive Atomoxetine medication. There is no difference about weight, height, blood pressure (SBP and DBP) and heart rate. Nevertheless, it's observed higher BMI decrease in OROS MPH patients than Atomoxetine. No significant differences were found in others treatments.

Conclusions: The results obtained do not demonstrate significant differences on weight, height, heart rate, blood pressure (SBP and DBP) and BMI after 1 month of psychopharmacology treatment. Additionally, psychopharmacology treatments are secure and also, side effects are so improbable.

Keywords: ADHD, side effects of psychopharmacology.

PT-030

Factors that affect the effectiveness of teachers in implementing prevention programs

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Introduction: The center of addiction prevention and promotion of psychosocial health "Schedia" applies programs for the prevention of addictions to students of all educational levels. The main object of the programs is to enable students to develop, or reinforce basic individual and social skills, which will help them cope with difficult situations, and will change their attitudes against drug use.

Objectives: The present study investigates factors that reinforce the effectiveness of programs which are implemented by teachers.

Method: Prevention programs are carried out by teachers who have already been educated to apply prevention programs in groups. Their training contains seminars on health education, drug-use prevention, issues concerning drug psychopharmacology and epidemiology, and practice on experiential techniques. Teachers who finally apply prevention programs are supervised by a specialist from the Center, and they work out together both the progress, and the difficulties, or questions which arise as the program goes on. The data of the present study were collected by individual interviews taken from headmasters, teachers, and the Center's specialists. For the qualitative analysis of the interviews the approach of "ground theory" was used.

Results: Analysis showed that although teachers are often considered as the most suitable to implement such programs because of their close relationship and constant contact with the students, in some cases they cannot meet the requirements of the program because: (1) they have rigid convictions about the educational techniques and their relationship with the students, (2) they usually have difficulties in applying experiential techniques, (3) there are difficulties in committing themselves to carry out a program as a whole, (4) prevention programs are not often incorporated within the school program. These problems can be minimized by: (1) Careful selection of teachers, examination of motivation, flexibility in the adoption of practices of experiential and group-centered education, personal consistency and commitment, previous training and expertise, review of participation through evaluation, (2) consistent and continuous supervision by the scientific staff of the Center, (3) integration of programs in the educational program and the school life, with parallel interventions for parents.

Conclusion: Scientifically evaluated programs should include continuous training and supervision of teachers in order to be effective and to have high quality in their implementation.

Keywords: Prevention programs, students, health education, teachers' training.

PT-031

A preliminary finding of EEG differences of children with disruptive behaviour disorders in Singapore

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Background: Many electroencephalography (EEG) studies have underscored that children with attention deficit hyperactivity disorder (ADHD) exhibit brainwave abnormalities. Specifically, they have increased theta (slow wave) and decreased beta (fast wave) brain patterns. These children show elevated theta/beta ratio compared to those in both normal and other clinical populations. Such differences are interpreted to be indicative of a reduction in brain arousal activity to task demands. EEG measures are thus an important clinical tool in aiding the diagnosis and assessment of ADHD. Clinically, ADHD often present with comorbidities and most commonly with conduct disorder (CD). An investigation on how such comorbidities can affect EEG brain wave patterns in ADHD children is of significance.

Objective: This study investigated the EEG differences in theta, beta activities and theta/beta ratio using a sample of Asian children in Singapore diagnosed withdisruptive behaviour disorders. We hypothesised that these measures will in particular discriminate between those with an ADHD only and those with a comorbid diagnosis of conduct disorder.

Method: A total of 105children aged between 7 and 16 were recruited from a child psychiatric outpatient clinic in Singapore. Participants were included in the study after satisfied the DSM-IV-TR criteria and were assigned into one of the following: (i) ADHD only ($n = 43$), (ii) ADHD + CD ($n = 48$) and, (iii) CD only ($n = 14$). EEG recording were obtained during a 3-min resting task (with eyes open) using 12 scalp electrodes across 6 regions and 2 hemispheres of the brain. Fourier transformation was performed to provide absolute power for theta and beta bands. Theta and beta values, and theta/beta ratio were then computed.

Results: Repeated measures one-way ANOVA was performed. The result indicated that there were no significant differences in theta ($F(2, 11) = 0.49$, $p = 0.61$) and beta ($F(2, 11) = 0.57$, $p = 0.56$) characteristics. Theta/beta ratio ($F(2, 11) = 0.10$, $p = 0.89$) across 6 regions and 2 hemispheres of the brain did not differ across three diagnostic groups either.

Conclusions: Contrary to our hypothesis, our preliminary results did not show any significant differences in EEG theta, beta activities and theta/beta ratio between those with only an ADHD diagnosis and those with a CD comorbidity. Our findings might suggest that these EEG measures do not sufficientlydiscriminate in our local subsample. It should also be highlighted that the results cannot be extended to children who have secondary ADHD symptom presentation. Data collection is still currently ongoing; this will provide the basis for a more conclusive finding. In addition, due to the complexity of comorbid conditions, it is difficult to elucidate the underlying brain mechanisms and thus a greater need for research aimed at undercovering distinct brain wave patterns of those diagnosed with ADHD and comorbidities.

Keywords: Attention Deficit Hyperactivity Disorder, Electroencephalography, Singapore, Comorbidity, Conduct Disorder, Children, Theta

PT-032

Psychiatric intervention after the 2011 Japan Earthquake and Tsunami

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Ishinomaki city suffered enormous damage in the huge earthquake of magnitude 9 and the catastrophic tsunami higher than 20 m which occurred on 11th of March 2011. It was the second largest city in Miyagi prefecture with a population of 162,822 before the earthquake. The earthquake caused tremendous damage and victimized a large number of citizens. As of February 15th, 2012, the death toll in Ishinomaki City was 3,182 and 557 people were missing. The child and adolescent psychiatric intervention team in the National Center for Global Health and Medicine for Ishinomaki city made three interventions and collaborated with the Community Board of Education for the treatment of children who have suffered from stress due to the massive disaster. The first intervention: shortly after the disaster on 11th of March 2011, Ishinomaki city hosted many different psychiatric intervention teams. Each intervention team conducted interviews with all the survivors living in the shelters. However, since there were only a few children and adolescent psychiatrists present, we found it difficult to understand the mental state of the children living in shelters because of the lack of information at hand. The second intervention: we provided a questionnaire-based study on psychiatric symptoms for children on November 2011. The subject is comprised of 12,524 children from kindergartens, elementary, junior high and high schools in Ishinomaki City. We used The Post Traumatic Stress symptoms for Children-15 items (PTSSC-15), a self-completion questionnaire on traumatic symptoms. After the questionnaire study, two child psychiatrists visited every school in Ishinomaki city in February and March 2012.The third intervention: we provided a questionnaire-based study on psychiatric symptoms for 12,947 children on November 2012. Two child psychiatrists visited all schools of Ishinomaki city in February and March 2013. We compared the children's traumatic symptoms in 2012 and 2013. And we examined the course of each traumatic symptom. It is important to not only evaluate traumatic symptoms limited to the self-completion provided, but also to confirm some information in regards to children's problems that come up and change over time. Therefore, collaborating with education institutions was deemed necessary in order to confirm the information of children's activities of daily living and to provide the best possible care and treatment to children who are suffering from posttraumatic symptoms after the devastating disaster.

Keywords: Trauma, tunami, earthquake.

PT-033

Gender dysphoria in adolescents: diagnostic stability and clinical utility of new classification systems

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Background: Gender identity disorder (GID), recently named gender dysphoria (GD) by DSM-V, is a rare condition in adolescence. It describes the deeply distressing and fixed feeling of being born the wrong sex, and a strong desire to be of the other gender and being socially treated as such. Adolescents with GD present with an intense rejection of the behaviour, attributes and/or attire of the born gender and verbalize their determination to follow the process (including hormonal therapy and sex reassignment surgery) of transition to the opposite gender. The diagnostic classifications in this field are characterized by lack of knowledge and controversy. A challenge of new classification systems (ICD-11 and DSM-V) is to find a balance between stigmatization concerns and clinical utility. This study aimed to investigate the clinical utility of the GID diagnostic criteria in the new classification systems in adolescents.

Methods: Case series of four 16–17 years old adolescents (3 female-born and 1 male-born) with GD seen at Child and Adolescent Mental Health Services (London, UK) in 2012. Data was collected through clinical assessments and questionnaires (Utrecht GD Scale and Gender identity/GD questionnaire for adolescents and adults) and contrasted with the diagnostic classificatory systems [ICD-10 (1992), DSM-IV-TR (2000), DSM-V (2012), and ICD-11 (preliminary)], examining their clinical utility and diagnostic stability.

Results: Clinical utility of classification systems was examined using the First et al. (2004) criteria, recognized by ease of assisting clinical decision makers in these functions: (1) conceptualizing diagnostic entities, (2) communicating clinical information to patients/others involved, (3) using diagnostic criteria and categories for interviewing and differential diagnosis, (4) choosing effective interventions to improve clinical outcomes, and (5) predicting future clinical management needs. Findings on their clinical utility and diagnostic stability will be provided.

Conclusions: Classification systems evolved in their conceptualization of GID, reflected in a shift in their category names, meaning and place within mental health disorders. New classification systems aim to better identify the condition to help clinicians and health services to be more responsive to their needs. Relevant issues including variations in diagnostic criteria for duration of symptoms, differential criteria applied to age groups, the dimensional vs. categorical approach, the cross-cultural validity of diagnosis, and the lack of clinical trials are raised.

Keywords: Gender identity disorder, adolescence, diagnosis, clinical utility.

PT-034

Developmental pathways and clinical features in an "aloof" adolescent group

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In the following study the authors (all employed in the Department of Child and Adolescent Psychiatry and Neurology of the University of Rome Sapienza) looked into the main reason of withdrawal in adolescence, examining the causes and possible psychopathological issues in future development. We selected subjects between the age of 12 and 18 who reported school dropout and isolation in a 6 months period at least. Between the 50 adolescents selected, about 30 % of the sample has shown heterogeneous symptoms (depressive disorders, schizophrenia prodroms, developmental disorders associated with psychopathological symptoms), about 70 % instead has homogeneous developmental pathways and defined clinical features. In the second group a noticeable 95 % of male prevalence has been noted, withdrawal is clearer than in the first group and, although less obvious, started inthe preschool period. Symptoms start to appear between the age of 12 and 14, in addition to isolation, other common characteristics are as follows: obsessive–compulsive symptoms with a strong ego syntonic nature, aggression against caregivers and passive attitude with peers, bizarre lonely hobbies hardly sharable, many hours spent on video games and motor clumsiness. Although not belonging to autism spectrum disorders the neuropsychological profile shows common ground with the nonverbal disorder. The personality assessment shows different profiles with schizoid, schizotypal, paranoid or avoidant traits. In conclusion it was possible to trace a homogeneous clinical group of adolescent patients based on common traits (marked withdrawal and school dropout) hardly framable by modern nosology. This issue needs further theoretical and clinical studies and a careful inquiry on the structure of the Self of this kind of adolescents for a full understanding of the phenomenon.

Keywords: Adolescence; withdrawal; obsessive–compulsive; personality.

PT-035
New therapeutic options seem to be effective treating patients suffering from ADHD

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Introduction: ADHD is a complex disorder which requires biological and psychological therapies. Since the last decades, methylphenidate and atomoxetine are the nearly only biological therapies, with effect sizes of >0.8. Unfortunately, the response rate to these options is about 75 %, i.e. that 25 % require alternative treatments to improve their ADHD symptoms. Recently, biological therapies like, tDCS, rTMS, DBS, BLT as well as pharmacological therapies with e.g. omega 3 fatty acids and zinc were investigated for possible efficacy for ADHD.
Methods: This contribution reports advantages and disadvantages as well as effect sizes of those therapies.
Results: tDCS, rTMS, DBS, BLT as well as pharmacological therapies with e.g. omega 3 fatty acids and zinc showed some remarkable effect, which is lower than that of methylphenidate and atomoxetine, but exceeds that of placebo.
Discussion: tDCS, rTMS, DBS, BLT as well as pharmacological therapies with e.g. omega 3 fatty acids and zinc seem to be somewhat effective treating ADHD patients. Their position as adjunctive therapeutic strategies warrant further research.
Keywords: ADHD; methylphenidate; atomoxetine.

PT-036
What's new about children's sensory peculiarities in PDD assessment?

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Background: The DSM-V proposes a new criterion for the diagnostic of autism spectrum disorder: "Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of environment". This subject is described in the bibliographies of all the patients with high-functioning autism. In our clinical work, a lot of patients of or parents answer with interest questions about sensory peculiarities if we ask them questions about this subject.
Aim: The aim of our study-based on Dunn's Sensory Profile (SP) is to examine children 'sensory peculiarities, to research the possible correlation between results and the proposed diagnosis (typical autism, Asperger syndrome, PDD NOS or not PDD…), to compare the results of SP with other scales (CARS, ADOS, PEP R…), to calculate sensibility and specificity of SP in the different PDD diagnosis. Does Sensory profil questionnaire become a new tool for children' PDD diagnosis?
Methods: The SP (175 items) is filled out with the caregivers; this questionnaire asks questions concerning reactions to sensory stimuli in everyday life. We have more than 250 completed SP. An analytical assessment provides different scores, compared to a control group.
Results: We have calculated correlations between the different scores and we will present our first statistical results. In our clinical work, we observe that caregivers are very interested in the questionnaire. These observations give also new possibilities for taking care of patients.
Conclusion: Our findings attest and precise the prevalence of sensory processing impairments in PDD, they confirm the benefit of sensory investigation for a more accurate diagnosis and a more comprehensive treatment.
Keywords: Sensory pecularities, Dunn sensory profil questionnaire, PDD Assesment.

PT-037
Intellectual deficiency in children with autism spectrum disorders (ASD): an overestimation?

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Study objectives: Children with ASD exhibit heterogeneous cognitive profiles that are not always well assessed with classical intelligence batteries such as the Wechsler scales. This may explain the highly variable prevalence rates for intellectual deficiency in ASD, ranging from 25 à 85 %. Some authors report a high number of "false deficiencies" in ASD, as classical intelligence scales may not be appropriate for children with autistic functioning, suggesting tests like Raven's progressive matrices instead. In this study, we aimed to test whether the level of intellectual ability measured by the Wechsler intelligence scales may differ from the level of intellectual efficiency measured by Raven's progressive matrices, in a sample of children with ASD.
Methods: This comparative study analyzed data from cognitive assessment in children with ASD evaluated at the Autism Resource Center for Children and Adolescents in Alsace (France) from 2008 to 2012. Thirty-five children with ASD underwent assessment with both, the Wechsler Intelligence Scale (WPPSI or WISC-IV) and with Raven's progressive matrices.
Results: Cognitive data from 35 children with ASD were analyzed (4 girls, 31 boys, mean age 7.1 year ± SD 2.6, range 3.5 to 13.2 year). Mean performance IQ (P-IQ) based on Wechsler scales was 70.8 (±12.5), whereas the IQ equivalent based on Raven's progressive matrices (Raven-IQ) was 95.9 (±14) ($p < 0.0001$). The mean difference between P-IQ and Raven-IQ was 27.2 points (±12.8), ranging from 9 up to 50 points in a given child. As a result, only 8.8 % of children with ASD would be considered intellectually deficient (IQ < 70) based on Raven's matrices, compared to 46 % based on Wechsler scales ($p < 0.0001$). Overall, 40 % of children in our study population could be « falsely intellectual deficient » (Wechsler-IQ < 70 but Raven-IQ > 70).
Conclusions: Our study confirms that the prevalence of intellectual deficiency may be overestimated in children with ASD, depending on the cognitive battery used. These results suggest that it is crucial to employ tests that take into account the autistic functioning of children in order to reflect their cognitive abilities appropriately. Detailed knowledge of children's cognitive profile may improve teaching methods and possibly long-term cognitive outcome in children with ASD.
Key words: Autism spectrum disorders, intellectual deficiency, Wechsler, Raven's progressive matrices.
Keywords: ASD; intellectual deficiency.

PT-038
Audit of multi-family therapy in CAMHS: patient ratings and other markers

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Introduction: Multi-family therapy (MFT) is an intensive form of treatment for adolescent eating disorder cases [1]. Outcome measures are increasingly used in child and adult mental health services (CAMHS) to establish the quality of services. There are no specific outcome measures designed for use in MFT with goals of treatment restoration of weight and maintenance of physical health.

Aims: To audit 2 cycles of MFT carried out in the Southern Trust, Northern Ireland, looking at patient's experience using a post and pre treatment questionnaire, alongside concrete measures of recovery e.g. increased BMI. Method Since 2012 there have been 2 cycles of MFT (Group 1 = 4 families (n = 15), Group 2 = 3 families (n = 8)). The first group (February 2012) was given a post-treatment questionnaire, asking what had been learned/gained/achieved during treatment. Participants were asked for a subjective rating of their ability to manage future difficulties and if the experience had been helpful. Group 2 (November 2012) was given a pre and post treatment questionnaire with additional questions around goals. A retrospective case note review was carried out to establish demographic information including gender, date of birth, diagnosis, referral date, BMI on referral, BMI on commencing MFDT, BMI 1 month and 6 months on after MFT (Group 1). Notes were reviewed for physical symptoms; blood abnormalities; age of menarche; LMP at MFT; family history; family history of ED; past medical and psychiatric history; current medication.

Results: All participant's BMI increased from pre to post MFT measurement, and all stated on follow-up that the experience was helpful. Prior to treatment, Group 2 rated their ability to managed difficulty as an average rating of 2.4 out of 10. On post MFT questionnaire this had increased 7.4 out of 10. Some requested bloods and ECGs were not evident in casenotes with 60 % of pretreatment blood abnormalities returning to normal on repeat testing post MFT.

Conclusion: The results of this audit suggest there are subjective and objective measures of improvement in this group of families who underwent MFT. Improvements could be made in documentation of ECG, physical health and blood monitoring. This audit will be repeated with the next cohort of patients.

Reference:

[1] Dare C. Eisler I. A multi-family group day treatment programme for adolescent eating disorder. Eur Eat Disord Rev. 2000;8:4–18.

Keywords: CAMHS eating disorders MFT.

PT-039

Detecting adolescents with social phobia on the Internet

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Background: Patients with social phobia commonly resist face-to-face assessments, and alternative assessment methods based on the Internet are required to detect adolescent patients. Besides, the help-seeking behaviour of these patients has not been investigated through the Internet. The aim of this study was to identify adolescent patients with social phobia on the Internet and examine the factors affecting their professional help-seeking.

Methods: Participants between 12 and 20 years old were recruited on the Internet. The internet-based social phobia inventory (SPIN) was used for the assessment of social phobia. The internet-based inventory of depressive symptomatology, self-report (IDS-SR), was used to detect major depressive disorder (MDD). All of the demographic variables including age, gender, years of education, family history of mental disorders, and questionnaire scores were included in the logistic regression analysis to examine the factors that influenced their help-seeking behaviour.

Results: A total of 174 eligible participants were recruited over the Internet. Most of them were females (79.9 %), with a mean age of 18.4 ± 1.7 years. There were 144 participants (82.8 %) reaching the threshold of social phobia defined as at least 24 on the SPIN total score, and 99 (56.9 %) reaching the threshold of MDD defined as at least 36 on the IDS-SR total score. Among the participants whose symptom severity reached the threshold of social phobia, 96 (66.7 %) were found to reach the threshold of MDD (66.7 %), and 115 (79.9 %) had never sought professional help. Only IDS-SR total score was significantly associated with professional help-seeking in the logistical regression analysis ($\beta = 0.35$, $p = 0.017$).

Conclusions: This study has attempted to detected adolescents with social phobia through the Internet and most of them were found to be untreated and comorbid with MDD. In addition, the association of depressive severity with professional help-seeking implies that detecting depression through the Internet is also important.

Keywords: Adolescent, social phobia, Internet, depression, help-seeking.

PT-040

Doctors' perspective, knowledge and attitude towards children with psychiatric illness

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Introduction: The adequacy of undergraduate medical training regarding Children with Psychiatric Illness (CPI) is a debatable issue. The data on this aspect is scarce.

Objective: The main aim of this study was to evaluate the knowledge, management practices and attitudes of a group of resident doctors in a Tertiary Care Centre towards CPI.

Methods: This cross-sectional study was carried out in a training hospital including 100 resident doctors agreeing to participate in the study. Data collection was done by self-applied semi-structured questionnaire. Analysis was done using SPSS ver17.0.1.

Results: There was no significant difference among responses of doctors from different disciplines. Many respondents had positive values about CPI, and 85 % recognized prejudice in the population against them. The referral of CPI to the psychiatrist is a common practice among 51 % doctors and 95 % believe that primary intervention holds an important entity in management. The majority of the residents were unsatisfied not only with their, but also their colleagues' knowledge, and familiarity with the variety and management of CPI. 60 % residents were of the opinion that the undergraduate medical school training did not give enough importance to the study of CPI.

Conclusions: The non-psychiatrists do not feel confident in managing CPI and complain about the inadequate undergraduate medical training regarding CPI. There was not a clear relationship between the undergraduate medical training, referral practices and satisfaction regarding the management of CPI. In this way, there are other barriers, perceived or not, to providing care to CPI by the doctors, and they need to be addressed in the medical undergraduate curriculum and continuing medical education.

Keywords: Children, doctor, perspective, knowledge, attitude.

PT-041

Autistic spectrum disorders in the growing up in ireland longitudinal study: 9 year old cohort

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Background: Autism and autistic spectrum disorders (ASDs) are devastating neurodevelopmental disorders of childhood with deficits in social interaction, communication and characteristic restricted, repetitive patterns of behaviours, interest and activities. Growing Up in Ireland (GUI) is a National Longitudinal Study of Children in Ireland and collecteddata regarding children's physical and developmental health including information regarding autism.
Aims: To determine the prevalence of ASD in the 9 year old GUI cohort and compare this group with the rest of the cohort in terms of demographics, psychosocial stressors, bullying and comorbid developmental issues.
Methods: The GUI database was interrogated and analysed using SPSS v 20. IBM.
Results: 57 children had an ASD diagnosis in the 9 year old cohort ($n = 8568$) which is a prevalence of 0.7 %. The children with ASD were more likely to have been born at 32 weeks gestation or less, and less likely to have been delivered after 42 weeks $p < 0.001$. There was a higher rate of developmental comorbidities in the children with an ASD diagnosis: dyslexia 15.8 vs. 3.7 %, attention deficit hyperactivity disorder 22.8 % vs. 0.9 %, dyspraxia 24.9 vs. 0.9 % ($p < 0.001$). 4/57 (7 %) of those in the ASD cohort had experienced time in residential care or a foster home compared to 67/8444 (0.8 %) of the rest of the cohort ($p < 0.001$). There was a higher incidence of mental health disorder in an immediate family member in the group with an ASD diagnosis, 10.5 % compared to 2.8 % ($p = 0.002$). 43.9 % of the children in the ASD group reported experiencing bullying compared to 37 % of the rest of the cohort ($p = 0.13$). Children with ASD were more likely to report being verbally bullied 36.8 vs. 24.8 % ($p = 0.052$).
Conclusions: There were significantly higher rates of developmental comorbidities among children with ASDs. This may indicate a common genetic aetiology and raises the issue for the need for appropriate services and therapies for these children. The rate of dyspraxia in the cohort without ASD was lower than would be expected which may signal the underdiagnosis and unmet need of these children. The greater exposure to care that children with ASDs experienced requires further examination with regard to the situations that necessitated this care and its effects. The higher rate of mental health difficulties in immediate family members of those children with ASDs may point to an underlying genetic basis of this disorder. The high number of children with ASD who have experienced bullying highlights the need for vigilance and coping strategies.
Keywords: Autism, longitudinal study.

PT-042

Attention network hypoconnectivity with default and affective network hyperconnectivity in adults diagnosed with attention-deficit/hyperactivity disorder in childhood

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Context: The neurobiological underpinnings of attention-deficit/hyperactivity disorder (ADHD) and particularly those associated with persistence of ADHD into adulthood are not yet well understood. Correlation patterns in spontaneous neural fluctuations at rest are known as resting state functional connectivity and could potentially characterize ADHD-specific connectivity changes.
Objective: To determine the specific location of possible ADHD-related resting state functional connectivity differences between adults diagnosed with ADHD in childhood and controls.
Design: Using resting state functional magnetic resonance imaging, functional connectivity from attention, affective, default and cognitive control networks involved in the neuropathology of ADHD were calculated and compared between the cases with ADHD and controls.
Setting: University, psychiatric service, MRI research centre.
Participants: 16 drug-free adults (5 female, 11 male, mean age, 24.5) diagnosed with combined type ADHD in childhood and 16 healthy controls matched for age (mean age, 24.4) gender, handedness and education who were recruited from the community.
Main outcome measures: Connectivity data from ventral and dorsal attention, affective, default and cognitive control networks and ADHD symptoms derived from ADHD-specific rating instruments.
Results: Adults with ADHDshowed significantly decreased resting state functional connectivity within the attention networks and increased resting state functional connectivity within the affective and default mode and the right lateralized cognitive control networks compared to healthy controls ($p < 0.01$, FWE whole brain cluster correction). Lower resting state functional connectivity in the ventral and dorsal attention network were significantly correlated with higher ADHD symptoms ($p < 0.001$).
Conclusions: These resting state functional connectivity findings might underpin a biological basis for adult ADHD and are functionally related to persistent inattention, disturbance in cognitive control and emotional dysregulation in adults with ADHD.
Keywords: ADHD fMRI functional connectivity.

PT-043

Training to teach: a structured approach for achieving competency in teaching and supervision in child and adolescent psychiatry

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Introduction: One of the major competencies from the specialty child and adolescent psychiatry curriculum (Royal College of Psychiatrists, UK) involves professional development on teaching and supervision. Teaching and supervision is present in the daily practice throughout the 3 years of training in child and adolescent psychiatry. At an academic level, child and adolescent psychiatry is taught to under and postgraduates students. However, there is no formal training available for professionals to achieve such competency on teaching and supervision. The initiative of running the PG Cert in University Learning and Teaching (PG Cert ULT) developed by Imperial College London offers a structured approach that helps in achieving knowledge and competency on teaching and supervision.

Method: The historical development of learning theories from passive to more active ways of learning, which are mostly based on the learning process of child development, are described. The competencies of Teaching and Supervision required in the Child and Adolescent Psychiatry curriculum are presented and linked to the way in which the PG Cert ULT helps in achieving them.

Results: Three competencies are required in the arena of Teaching and Supervision in the Child and Adolescent Psychiatry curriculum: (i) the trainee is able to give teaching sessions in a variety of formats, (ii) can complete a structured assessment of another clinician's performance and deliver constructive feedback, and (iii) can supervise another's clinical work. First, receiving formal training in teaching, including a variety of teaching formats and the use of interactive techniques, qualitatively improves your teaching performance. Second, receiving formal training in assessment and feedback, including the use of teaching observations and workplace based assessments, improves you capability of giving constructive criticism to trainees and peers. Third, having a theoretical understanding of the role of supervisors and the thinking behind educational and clinical supervision, and reflecting on the complexities of the supervisory relationship improves your performance.

Conclusions: Teaching and supervision is an important part of clinicians' career development and has significant repercussions on others (i.e. specialty trainees and medical students). Through formal training you can acquire new and valuable skills that are essential for teaching and supervision in Child and Adolescent Psychiatry.

Keywords: Teaching, academic psychiatry, supervision, career development.

PT-044

An overview of gender assignment decisions in girls with children with congenital adrenal hyperplasia

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Introduction: Congenital adrenal hyperplasia (CAH) refers to a group of disorders that arise from defective steroidogenesis. The most common enzyme deficiency is 21-hydroxylase deficiency. The present study is aimed to report experience of gender assignment desicons in girls with CAH.

Methods: Thirty five children aged from 6 months to 12 years with CAH, recruited from a clinical sample, for gender assignment from 1990 to 2011 were evaluated. Demographic and biological information was obtained from patient charts. Patient history interview administered to children and parents, Gender Identity interview administered only to the children. The children were also observed during free play sessions. Comparisons of variables were made with respect to gender of rearing. 5 children with 46, XY CAH (%14.3) were not included in the statistical analysis.

Results: 30 children were 46, XX CAH (85.7 %) in our sample. 4 of 46, XX CAH children reared as boy, 26 of them reared as girl. 4 children reared as boy were announced male at birth. 15 (57.7 %) of children reared as girl were announced female, 11 (42.3 %) of them were announced male at birth. In local sex reassignment committee, sex assignments were recommended as male in 2 of the children who reared as girl. One of these girls was 12 years old, the other girl was 4 years old at the time of assessment. For both cases, time of problem identification was at birth, sex announced at birth was female, rearing sex was female, gender identity was predominantly male.

Conclusion: Gender assignment process may be complicated when there is discordance between genetic, gonadal sex characteristics and gender identity. Age of diagnosis, degree of virilization, social acceptance, gender identity of child should be considered in gender assignment decision process in CAH. A multidisciplinary approach including genetic, anatomic, endocrinological, surgical, psychological and social evaluations to assessment and treatment is necessary.

Keywords: Congenital adrenal hyperplasia, gender assignment, gender identity.

PT-045

The difficulties of facial emotion recognition in children with autistic spectrum disorder

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Background: According to the theory of mind deficit hypothesis of autism, children with this condition have difficulties to understand and predict behavior of others on the basis of their mental states such as beliefs and intentions. Fundamental to this is the impairment to recognize and discriminate emotional expressions, especially complex emotions such as surprise, which may be caused by thoughts or beliefs. Until now experimental investigations of facial emotion recognition ability in children with autistic spectrum disorder (ASD) have yielded mixed results.

Objective: The aim of the present study is to investigate the perceptual ability to recognition specific emotion from facial expressions in children with ASD by using visual stimuli.

Method: In this study we tested 20 children (aged between 4 and 7 years) diagnosed with ASD on a facial emotion recognition task using BARTA (University of Bolton Affect Recognition Tri-Stimulus Approach). This test represents a unique database providing validated images (both synthetic and human faces) of facial expressions of six emotions: anger, disgust, fear, happiness, sadness and surprise. This test was obtained with the agreement of Lawrence Louise & Abdel-Nabi (see note 1). The children were diagnosed after DSM-IV criteria for autism and using autism diagnosed observational scheduled (ADOS) in Child and Adolescent Department, Prof. Dr. Al. Obregia Hospital of Psychiatry, Bucharest, Romania. Measures of IQ were obtained using NEPSY (A Developmental Neuropsychological Assessment).

Conclusions: The result are still in progress but for the moment we can conclude that children with ASD have difficulties in recognition the belief-based emotion.

Keywords: Facia expressions, autistic spectrum disorder.

PT-046

Disorders of sex development: an overview of experiences in child and adolescent psychiatry Department of Ankara University

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Introduction: Disorders of sex development (DSD) are defined by congenital conditions in which development of chromosomal, gonadal or anatomic sex is atypical. This present study is aimed to assess the diagnostic and psychiatric characteristics of patients with DSD.

Method: One hundred and seventeen children aged from 6 months to 17 years with DSD, recruited from a clinical sample for gender assignment desicion from 1990 to 2012 were evaluated. Demographic and biological information was obtained from patient charts. Patient history interview administered to children and parents, Gender Identity interview administered only to the children. The children were also observed during free play sessions.

Results: There were 46, XY DSD 33 (28.2 %), 46, XX DSD 70 (59.8 %) and sex chromosome DSD 14 (12 %) children in our sample. 42 (39.2 %) children were diagnosed 5α-reductase deficiency and partial androgen insensitivity syndrome (PAIS). 10 (9.3 %) children had complete androgen insensitivity syndrome (CAIS). 36 (33.6 %) children were diagnosed congenital adrenal hyperplasia (CAH). 6 (5.6 %) children were diagnosed gonadal dysgenesis, 13 (%12.1) children had turner syndrome. Time of problem identification was at birth in 55 (49.5 %) children, at first 2 years of age in 37 (33.3 %) children, at preschool period in 6 (5.4 %) children, at school period in 9 (8.1) children and at adolescence in 4 (3.6 %) children. According to gender identity assessments In local sex reassignment committee, assignment decision was made through the opposite of the rearing sex for 9 (8.6 %) children. 3 of these children had CAH, 2 of them had 5α-reductase deficiency, 2 children had PAIS, 2 children were diagnosed gonadal dysgenesis.

Conclusion: There are many aspects in diagnosis and management of DSD. A multidisciplinary approach including genetic, anatomic, endocrinological, surgical, psychological and social evaluations to assessment and treatment is necessary. Identification of the problem in younger ages is more common in this present study. This indicates the awareness about the early diagnosis and management of DSD in our country is increasing.

Keywords: Disorders of sex development, gender identity, gender assignment.

PT-047

Secondary prevention of eating disorders in North of Spain

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Introduction: Subsequent to an epidemiological study on ED in a large representative stratified community sample of 4,047 Spanish adolescents using standardized methods, a prospective study was carried out to examine the effect of a controlled school-based programme for prevention of ED.

Objectives: Secondary prevention of Eating Disorders (ED) in early adolescents. To measure prevalence rates for eating disorders (ED) in a large representative sample of Spanish adolescents in North of Spain using standardized methods. Method: A two-stage approach was used, which involved the screening of a population large sample of 1,846 adolescents aged 12.38 and subsequent semi-structured interviews of screen-positive subjects and a sample of those who were considered not at risk (screen-negative subjects). In phase 1 members of multidisciplinary research team who had been previously taught the standardized methods, administered the Spanish version of the Eating Attitudes Test (EAT-26). In phase 2 a research psychiatrist or psychologist administered the SCAN (Schedules for Clinical Assessment in Neuropsychiatry). Sample: During the 2007, 1,846 students seventh-gradein 73 classrooms in 29 schools of Zaragoza, Santiago de Compostela, Vigo, Orense and Santander (North of Spain). The intervention is financed by F.I.S. PI 05/2533.

Results: At baseline in 2007 we studied 1,846 students seventh-grade. A total number of 897 adolescent girls (48.6 %) and 949 boys (51.4 %) participated voluntarily. A 11.00 % (95 % CI: 9.4–13.5 %) of the girls and a 7.9 % (95 % CI: 6.4–9.8 %) of the boys were classified at risk of ED (high scorers). The prevalence rates (ICD-10, DSM-IV criteria) for girls was 1.3 % (95 %CI: 0.8–2.3 %) for ED non otherwise specified (EDNOS). Overall ED prevalence in boys was 0.1 % (95 %CI: 0.0–0.6 %) for ED non otherwise specified (EDNOS).

Conclusion: Our findings suggest that school interventions for adolescents is useful in secondary prevention of ED. The prevalence of ED in early adolescents of Aragón, Cantabria and Galicia (North of Spain) is similar to those reported for other developed countries.

Keywords: Eating disorders, secondary prevention.

PT-048

Differential diagnosis of ADHD and depression: symptoms, psychosocial factors, and neuropsychological function

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ADHD is associated with elevated levels of mood disorders. Differential diagnosis of ADHD, depression, or the comorbid condition, is complicated by similarities in symptoms such as inattention, concentration problems, irritability and restlessness. The present study aimed to investigate symptoms, psychosocial and neuropsychological features of ADHD and depression in order to facilitate differential diagnosis. The study also aimed to investigate factors associated with the presence of depression in individuals with ADHD. Data were collected from participants with ADHD alone, depression alone, comorbid ADHD and depression, and healthy controls. Groups were compared on current symptoms, retrospective early childhood ADHD symptoms, psychosocial background, and neuropsychological function. The ADHD alone group reported more current impulsive symptoms, but not current inattentive or hyperactive symptoms of ADHD than the depression alone group. However, the ADHD alone group had significantly higher levels of all childhood ADHD symptoms than the depression alone group. There were no differences between the ADHD and depression groups with regard to anxiety symptoms. The ADHD alone group reported more childhood psychosocial problems than the depression alone group. There were no significant differences found between the ADHD alone and depression alone groups on the neuropsychological measures. The comorbid ADHD and depression group reported higher levels of current inattentive symptoms than the ADHD alone group, but the groups did not differ regarding childhood symptoms of ADHD, psychosocial background or neuropsychological function. Therefore, differential diagnosis of ADHD and depression is complex because there are many similarities in presentation.

Keywords: ADHD depression differential diagnosis.

PT-049

Gender differences in depressive symptomatology in adolescents

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Background: Gender differences in depressive symptomatology in adolescents are seldom studied. A few studies show higher symptom burden and more eating disturbances and feelings of guilt in girls. Regarding self-esteem and self-rated health, girls score lower than boys in the general population; however, these differences are seldom studied among depressed adolescents.

Objective To study gender differences in adolescent depression in terms of symptomatology, self-esteem, functioning level, and self-rated health.

Methods In the Youth and Mental Health Study, a representative sample of 2464 adolescents (mean age 13.7, SD 0.58, 50.8 % girls) from Central-Norway was screened with the mood and feelings questionnaire (MFQ) twice, 1 year apart. At T_2, high scorers ($MFQ > 25$) and a subset of medium and low scorers ($MFQ < 25$) were interviewed with the Kiddie-SADS-PL, a DSM-IV diagnostic interview ($n = 345$, 72.5 % girls). Ninety-four adolescents (79 girls, 15 boys) had a current depressive disorder, i.e. major depressive disorder, dysthymia, double depression, or depression NOS, and 89 (72 girls, 17 boys) had a depressive disorder during WPE (Worst Previous Episode). 159 individuals (130 girls, 29 boys) had a life-time depressive disorder. Analyses of gender differences with respect to depressive symptoms, self-esteem (SPPA), functioning level (CGAS), and self-rated health (SRH-4) were performed using non-parametric and parametric statistics.

Results: Girls with a current depression ($n = 79$) reported more often the symptoms "depressed mood", "recurrent thoughts of death", and more "weight and appetite disturbances" ($p = 0.04$ to $p = 0.05$) compared with depressed boys ($n = 15$). Girls with a WPE depression ($n = 72$) reported more often "sensitivity for rejection" ($p < 0.005$) than the boys ($n = 17$) during the episode, and a current poorer self-rated health ($p = 0.03$) than the boys. Boys experienced more frequently "irritable mood" during WPE depression ($p = 0.03$).

Conclusion: The gender differences found in this study should warrant health personal and the society at large to be aware of depressed mood among girls, and irritability among boys, as a signal of a depressive disorder. Further, recurrent thoughts of death, eating problems, and especially sensitivity for rejection are more prevalent among depressed girls. The low number of depressed boys in this study might have influenced the results. It is of importance to further increase the knowledge of gender differences in the symptom profile of depression and self-rated health among young people.

Keywords: Gender differences, depression.

PT-050

Clinical consequences of duration of untreated psychosis on adolescents with first episode psychosis

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Purpose: The aims of the study were to explore the clinical consequences of "duration of untreated psychosis" (DUP) and "duration of untreated illness" (DUI) which were the modifiable factors about prognosis of psychotic disorders [1,2].

Method: Adolescent patients, who underwent inpatient treatment for first episode psychosis were recruited in our research. Having a diagnosis of mental retardation and substance abuse or dependence disorder was part of the exclusion criteria but the exception was nicotine abuse which was not considered as an exclusion criterion. Patients with substance induced psychotic disorders were also not included. Patients under 20 years old were included in the study and the duration of recruitment period was 1 year. For the 43 patiens (11 females, 32 males) who were recruited in the study, psychopathological and psychosocial evaluation was conducted at the beginnig of the hospitalization and at the end of the hospitalization.

Results: DUP more than 2 weeks considered long DUP and DUI more than 20 weeks considered long DUI by dividing DUP and DUI from the median. Scores of psychological subscale of World Health Organization Quality of Life scale-Brief version (WHO-QOL) were worse for patients with long DUI. Mood disorders with psychotic features were included in affective psychosis (AP) group and the other psychotic disorders with unkown etiology were included in non-affective psychosis (NAP) group. Short DUP was associated with less symptom severity on brief psychiatric rating scale (BPRS) scores at the end of hospitalization. In the binary regression analysis, both short DUP and being in the AP group was associated with BPRS scores under 15 points at the end of hospitalisation.

Conclusions: Treatment response is beter for the AP group and for patients with short DUP. DUP and DUI is shorter fort he patients with AP. Long DUI increases the detrimantal effect of first episode psychosis on the quality of life. Long DUP is associated with worse acute treatment response. These results underline the importance of early intervention strategies in psychotic disorders.

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Keywords: Schizophrenia, bipolar disorder, treatment.

PT-051
Evaluating the effectiveness of psychosocial behavioural training interventions for children with symptoms of ADHD: a randomised controlled trial

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Background: A growing number of children are presenting with attention deficit hyperactive disorder (ADHD) or ADHD-type symptoms and increasing attention has focused on identifying effective forms of treatment. Psychosocial interventions are now recommended as the first-line of treatment for children with ADHD and their families (NICE, 2008).

Objective: This study was undertaken to assess the effectiveness of the incredible years basic parent intervention (IYBP) and the incredible years small group Dina programme as an intervention for irish children (aged 3–7 years) with symptoms of ADHD.

Methods: Forty-five children with symptoms of ADHD and their parents were randomly allocated to a Dina child training (CT) plus parent training (PT) intervention group (PT + CT, n = 12), a parent training group (PT, n = 19) or a waiting-list control group (WLC, n = 14). Assessments of child adjustment and parent behaviour and wellbeing were carried out using parent-report measures at baseline and at 6-months post intervention. An intention to treat analysis was carried out to examine post-intervention differences between groups. One-to-one post-intervention interviews were also conducted with a small number of parents (n = 8) who had received the combined intervention, as well as a focus group with Dina programme facilitators (n = 5).

Results: The findings highlighted significant differences at 6-month follow-up between the PT group and the WLC group on child hyperactivity and pro-social skills as well as parenting competency. Differences between the PT + CT group and the WLC group at follow-up were largely non-significant. These results suggest that the combined treatment (PT + CT) did not produce any added benefit for child hyperactive/inattentive behaviour post-intervention, although our qualitative findings suggest that the combined programme was viewed very favourably by both parents and children and had led to marked improvements in child behaviour.

Conclusion: The findings appear promising for this clinical subgroup of children and their parents, in that a parent-focused intervention led in improvements in ADHD symptoms and behaviour, as well as parent behaviour and wellbeing. However, a low rate of treatment engagement may have contributed to the poorer outcomes in the combined treatment (PT + CT) group, whilst the small sample size may also have reduced the statistical power of the analysis. Nonetheless, the subjective reports of parents indicated improvements in parent and child behaviour as a result of the combined IYBP and small group Dina treatment. Further research is needed to explore the potential of these kinds of programmes in treating children with ADHD symptoms, in both the short and longer term.

PT-052
Sensor-motor development of children with autistic spectrum disorder

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Among thewide range of various impairments referred as autistic spectrum disorder (ASD) and demanding a special approach on every stage of development, certain types of motor disorders can be marked out, such as motor stereotypy, lack of fluidity, abnormality of other motion characteristics and changes of sensor systems functioning. The current research is aimed on finding out the features of sensor-motor development of children with ASD. The research had following objectives:

1. Marking out several groups of children having different levels of sensor-motor development.
2. Working out the directions of intervention and evaluation their efficiency.
3. Detection of impairment mechanism of regulation of psychic process belonging to different levels, based on theanalyses of normal intrauterine psychic development.

In consideration of mechanism of normal intrauterine psychic development, based on principle of cross-functional connections reconfiguration, system organization and construction of psychic functionshierarchy, we have marked out four groups among the children with ASD according to the level of their sensor-motor development.

1. Sensory level of psychic development, serving for keeping the internal homeostasis.
2. Perception level of psychic development, working out a certain range of automatisms.
3. Level of bodily-spatial analyses, helping to master either inner or outer space.
4. Voluntary level of psychic development, building not vertical but also horizontal inter-hemispheric connections.

We have defined diagnostic criteria for every level that allowed us to make special correction programs. We propose the whole structure of sessions: sequence, periodicity, evaluation criteria for sensomotor correction, basic exercises. Yet the correction method does not have a hard fixed structure, its application to children having ASD demands individual approach. A special program for every single child should be considered.

Keywords: ASD, Sensomotor correction.

PT-053
The impact of the diagnosis of autism spectrum disorders (ASD) on maternal stress: a comparison with mental retardation's diagnosis

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Background: Receiving a diagnosis of a developmental disorder for one's child is a painful experience for a mother. That requires an adjustment of their thoughts, feelings, and expectations regarding the child so that they continue coping with raising their child. That psychological adjustment is probably more difficult than that of the diagnosis of any other developmental disability, because the characteristics of autism have been found to be especially challenging. Litterature has reported higher stress in parents of children with autism than in parents of children with other developmental disabilities, or other psychiatric difficulties.
Objectives: (1) to compare the maternal stress related to ASD children to those mentally retarded, (2) to analyse ASD children's mothers characteristics in order to identify potential risk factors for highest maternal stress.
Methods: We selected a group of 10 children with an ASD diagnosis (according to DSM-IV-TR diagnostic criteria) and compared them with a group of 10 children with mental retardation (without any other psychiatric diagnosis). The subjects had medical and psychological evaluations. Maternal stress was assessed by the Portuguese adaptation of the Parenting Stress Index (PSI).
Results: Sample size was not sufficient to obtain statistically significant results, however, mean scores of parenting stress in ASD mothers was 46.5; while mean scores of parenting stress in mothers of mentally retarded children was 26.5. Within the ASD mothers group, the mean score in the Child Domain factor of PSI was 93.1, while in the Parent Domain factor, the mean score was 54.4.
Conclusions: The main limitation to this study is the small sample size. However, the mean scores of parenting stress were dramatically different from one group to the other, being the highest values obtained in the child domain items, which suggest that high stress is related to challenges related to the child characteristics, rather than parent related issues. Further studies with larger samples are necessary.
Keywords: Autism spectrum disorders; maternal stress.

PT-054
Deesclator, novice or expert?

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My objective within this study is to raise the issue of de esclation of Mental Health patients in Accident and emergency deptartments within Dublins childrens Hospitals. This is a core competency of Mental Health nurses. Pediatric nurses often find themselves in the role of de eclation Mental health patients without any formal theoritical or experience as Pediatric Nursing curriculum doesnt cover De-esclation skills training. Limited international research is available on this topic, with recommendations for de esclation training to be core curriculum in Nurse training, No Irish study has been conducted on this topic. I plan to conduct semi structured focus groups in the 3 childrens hospitals, with an inclusion criteria of been an Irish trained Pediatric Nurse, who was on duty in the last 6 months when a pt was admitted to A&E requirung de esclation intervention for mental health reasons. I will include the diffficulities in acessing approppiate training of approved de esclation skills in non approved mental health areas (areas that arent listed a sapproved centres under mental health commission). i Will highlight the absence of De esclation skills training in post graduate level A&E nursing Mental Health module. This is an on going project with completion due in May 2013. My hypotesis is in line with findings internationally, that Accident and emergemcy Nurses are at the novice stage when dealing with de esclation of mental health paatients but find themselves in the capacity of expert. I will use the skilled helper novice to expert scale as a bases for this study. Recommendations will include practised based sessions in A & E delivered by dept of mental health, with de esclation skills training been added to post grad A & E program/pediatric nursing curriculum.
Keywords: DE ESCLATION, A&E.

PT-055
Family psychiatry history in pervasive developmental disorder: observational study in a child psychiatric unit

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Objective: Analysis of family psychiatric history in patients diagnosed of pervasive developmental disorder (PDD). The cause of pervasive developmental disorders is not known, but researchers are looking for answers. Children with PDD can display a wide range of symptoms which can range in severity from mild to disabling. They also vary widely in their individual abilities, intelligence, and behavior. Some studies suggest that PDDs are caused by a problem with the nervous system. Studies currently in progress are examining the structure and function of the brain in people with autism for clues that may help us better understand these conditions, as well as how to treat and/or prevent them.
Method: Retrospective, observational and descriptive study of PDD′s patients records with a history of family psychiatric illness, particularly Affective Disorders, ADDH, Schizophrenia and others psychotic disorders, mental retardation language disorder and PDD.
Results: Of a total of 156 cases, 47 (30.13 %) showed a family psychiatric history. Affective disorder was common (90 %) in 1st and 2nd degree relatives of asperger syndrome patients; Schizophrenia and other psychosis (46 %) were the most…?… diagnosis in childhood autism′s 2nd degree relatives. No significant diagnostic differences in PDD unspecified patient′s relatives.
Conclusions: As expected it was found a stronger link of affective disorder in asperger syndrome patient′s relatives, compared to other PDD patients. Other diagnoses were found for childhood autism and PDD unspecified patient′s relatives. These findings correlates with described etiological heterogeneity that probably will determine different clinical and etiological subtypes.
Keywords: Family psychiatry history developmental disorder.

PT-056
Risk assessment using heart rate variability due to methylphenidate treatment in children with attention deficit hyperactivity disorder

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Introduction: Attention deficit hyperactivity disorder (ADHD) is a common neuropsychiatric disorder of the childhood mostly treated with central nervous system stimulants such as methylphenidate (MPH). Risk of sudden cardiac death and serious arrhythmia due to MPH is controversial. The aim of our study was to investigate the effects of MPH treatment on autonomic functions of children by means of heart rate variability (HRV) analysis.

Method: Study group included 15 children diagnosed with ADHD (4 girls and 11 boys) between the ages of 7–13 years (mean, SD = 9.08 ± 1.79 years). The study group consisted of eight combined type, and seven predominantly inattentive type among subgroups of ADHD. Mean scores of the clinical global assessment scale was 68.3 ± 8.79 and the mean clinical global impairment-ADHD score was 4.46 ± 0.91 in the study group. All children were evaluated by a child and adolescent psychiatrist and a pediatric cardiologist. Cardiac and neurologic diseases affecting the autonomic nervous system were excluded. In addition to a detailed history and physical examination, 12-lead-surface electrocardiogram and 24-hour-ambulatory Holter monitorization were performed prior to MPH treatment. Same evaluations were repeated while the patients were receiving MPH between the dosages of 0.25–1 mg/kg/day (mean ± SD = 0.6 ± 0.21) at the second to fourth week of treatment. HRV parameters including time (SDNN, SDANN, SDNN-i, r-MSSD, pNN50) and frequency domain (LF, HF, LF/HF) indices were calculated and compared in pre and post treatment Holter recordings.

Results: None of the patients showed significant rhythm abnormalities during pre, or post treatment Holter recordings. Average heart rate and maximum heart rate were significantly increased after MPH treatment (average HR 88 ± 7.3 vs. 92 ± 7.1 bpm, p = 0.022; maximum HR 168.4 ± 15.5 vs. 180.5 ± 15.0 bpm, p = 0.031). SDANN values were significantly higher under treatment with MPH (121 ± 25.4 vs. 142 ± 47 ms., p = 0.025). pNN50 values were significantly lower in overall 24 h recordings and especially at the daytime (8 am–10 pm) when children were taking MPH pills (19.7 ± 9.9 vs. 14.7 ± 7.6, p = 0.008; 16.6 ± 16.9 vs. 8.5 ± 4.8 p = 0.011, respectively). Statistically significant difference was not found in terms of other HRV parameters.

Conclusion: Our study showed a significantly increased heart rate and decreased HRV due to MPH treatment in children with ADHD, suggesting an increased sympathetic tonus especially at the daytime. Risk of sudden cardiac death and serious arrhythmia has not been demonstrated.

Keywords: Methylphenidate, treatment, ADHD, heart rate variability (HRV).

PT-057

Reason for referial and final diagnosis of pervasive developmental disorder patients in a child psychiatric unit

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Objective: To evaluate reason for referial, age and sex gender distribution in pervasive developmental disorder (PDD) in their 1st appointment. The symptoms of children with PDD typically are identified in children around 3 years of age, a critical period in a child's development, but although the condition begins far earlier than 3 years of age, and parents often do not notice a problem until the child is a toddler who is not walking, talking, or developing as well as other children of the same age. The reason for referial varies between difficulty with verbal communication, including problems using and understanding language, difficulty with non-verbal communication, difficulty with social interaction, aggressive behavior, unusual ways of playing with toys and other objects, difficulty adjusting to changes in routine or familiar surroundings, repetitive body movements or patterns of behavior, such as hand flapping, spinning and, head banging, changing response to sound, temprer tantrums, etc.

Method: Retrospective observational and descriptive study of patient′s clinical records diagnosed of PDD (Childhood Autism F84.0, Asperger Syndrome F84.5, and PDD unspecified F84.9).

Results: Of a total of 156 cases, 79.49 % were male. Most prevalent age of first appointment were 2, 5 and 7 years old for childhood autism, Asperger Syndrome and PDD unspecified respectively. Most frequent reason for referial were "language difficulties" (58.97 %) in Autistic patients, "difficulty relating to people" (56.50 %) for Asperger Syndrome, "difficulty with changes in routine" and "language problems" (54.93 %) for PDD unspecified.

Conclusions: Statistical evidence was found between reason for referial and age with the final diagnosis. "Language difficulties" was strongly connected to Autism and PDD unspecified. Childhood Autism patients were significantly younger than Asperger Syndrome and PDD unspecified …?… when first seen.

Keywords: Developmental disorder diagnosis childhood.

PT-058

Association study of the Serotonin 1B Receptor Gene and ADHD in Korea

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Objective: Attention-deficit/hyperactivity disorder(ADHD) is one of the most common childhood psychiatric disorders. The evidences from family, twin, adoption studies suggests that ADHD is a highly heritable disorder. Although many reports have shown the genetic association between ADHD and dopaminergic/noradrenergic system, the number of the reports about the genetic association between ADHD and serotonergic system was relatively low. The aim of this study was to investigate the association between Korean ADHD children and the G861C polymorphism of serotonin 1B receptor (5-HTR1B)

Materials and method: The study sample consisted of 150 Korean ADHD children diagnosed by Kiddie-Schedule for Affective Disorders and Schizophrenia-Present and Lifetime Version-Korean Version(K-SADS-PL), both parents of ADHD children, and 150 age/sex matched normal children. DNA were extracted from the blood of all samples, and genotyping was done. Based on the allele and genotype information, not only the case–control analysis between ADHD and normal children but also the family-based association test among ADHD children and their both parents were performed.

Transmission disequilibrium test(TDT) was used for family-based association test. The results of the clinical rating scales and neuropsychological tests were compared according to the genotype of ADHD children.

Results: (1) By case–control analyses, there were statistically significant differences in the genotype frequencies between ADHD [80.7 % (genotype with C allele) vs. 19.3 % (genotype without C allele)] and normal children [70.7 % (genotype with C allele) vs. 29.3 % (genotype without C allele)] ($\chi^2 = 4.07$, $p = 0.044$). (2) In family-based association study, TDT failed to detect linkage disequilibrium(LD) between G861C polymorphism and ADHD in whole ADHD families.

Conclusion: Those results prove the genetic association between the 5-HTR1B G361C gene polymorphism and Korean ADHD children. And those suggest the possibility of the important interaction between the serotonergic and dopaminergic system in the pathophysiological or the pharmacological treatment mechanism of ADHD.

Keywords: ADHD, 5-HT1B gene polymorphism, G361C.

PT-059

Needs and impact among families with children with Autism Spectrum Disorder

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Objectives: The present study aims to explore the burden and the needs among mothers and families of children with Autism Spectrum Disorders (ASD).

Methods: During a 9 month period (March- November 2010), sixty-one mothers (mean age: 43.69 ± 5.84 years) of children with ASD (86.9 % boys, mean age: 10.33 ± 2.9 years) completed a questionnaire assessing the families' burden and needs regarding their child with ASD, as well as the Center for Epidemiology Studies Depression Scale.

Results: Over sixty-seven per cent of mothers presented with depressive symptoms. The most frequent maternal concerns included the child's support (61.82 %) and care (58.18 %) when it will not be possible for themselves to fulfill their caring role. Of the total, 18.52 % characterized the family atmosphere as 'chaotic' and 11.12 % characterized the atmosphere as 'intense-non cooperative'. Sixty-five percent reported that the family spent 800–1200 Euros per month on special therapies/travels, with a 13.2 % spending more than 2000 Euros per month. With regard to information needs, the adolescents' developmental issues (66.6 %) and the need for having access to health services (55.3 %) were the most frequent topics reported by mothers.

Conclusions: The present findings support the hypothesis that mothers of children with ASD present with frequent physical and mental health problems; it seems that the presence of a child with ASD has substantial impact on family functioning and family life. It is crucial to address the needs for support, funding as well as accessibility and quality of public services regarding mental health and education for the families of children and adolescents with ASD.

Keywords: Autism spectrum disorder, children, mothers, burden, family needs.

PT-060

A prospective longitudinal study of the paediatric anxiety symptomatology course in a spanish community sample

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Background and aim: Anxiety disorders are considered the most common emotional problems among all mental health disorders experienced in childhood and adolescence, and seem to be the earliest of all forms of psychopathology. Unfortunately, little is known about the developmental trajectories of the different subtypes of anxiety manifestations. The aim of this prospective study was to investigate, in a non-clinical sample of children, the trajectory of the anxiety manifestations according to the scores in the SCARED, along three stages of follow-up.

Materials and methods: A prospective longitudinal design in three phases was made. A total of 1,514 students aged between 8 and 12 years, participated in the 1st phase. In the 2nd phase (after 1 year), 562 subjects (aged between 9 and 13) were selected as subjects at risk of anxiety and mood disorders and their controls without risk. Two years later, all 562 subjects were invited to participate in the 3rd phase follow-up and 244 subjects participated. The Spanish version of the SCARED was administered in the three phases of the study, and we used valid and reliable cut-off points for total and factors scores (Birmaher et al., 1997; Vigil-Colet et al., 2009; Canals et al., 2012).

Results: The prevalence of anxiety symptoms in the first year of the study was 46.7 % (95 % CI: 44.2–49.2). We obtained an annual persistence (from the 1st to the 2nd phase) of total anxiety symptomatology of 56.4 % (95 % CI: 51.3–61.3). Thepersistencefrom the 1st phase to the last phasewas 32.3 % (95 % CI: 25.1–39.5). In both cases, the frequency of persistence was higher for females and the most persistent factors were social phobia and generalized anxiety. Despite this, we observed that the SCARED scores (total and factors) decreased over timebut in the boys and for somatic panic factor was found a significant decrease along the three phases.

Conclusions: The current study allows us to verify that anxiety is a very prevalent and persistent problem in the Spanish pediatric population, especially in females. This work also enlarges the knowledge about the developmental course of anxiety symptoms. Therefore, we can conclude that it is important an early detection of anxiety cases in the early adolescent period in order to minimize the possible negative consequences in the daily lives of affected children and their families.

Keywords: Anxiety symptomatology, early adolescence, SCARED, community sample.

PT-061

Application of the psychodinamic diagnostic manual in a group of adolescents with anorexia nervosa

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Background: The use of DSM-IV to describe eating disorders in children and adolescents has been widely criticized for including criteria that are less specific for the developmental age than for adulthood (i.e. amenorrhea). Moreover, it doesn't provide any information about patients' prognosis. Conversely, the psychodynamic diagnostic manual (PDM) includes a specific section for the diagnosis in the developmental age and it provides a clinical profile of the patient according to three axes: Mental functioning for children and adolescents (MCA), child and adolescent personality pattern and disorders (PCA), child and adolescent symptom patterns (SCA).

Aim: To use the MCA and PCA axes to fill out a more accurate diagnostic profile in girls with anorexia nervosa (AN) and to describe possible prognostic features.

Materials and methods: Thirty girls with AN were recruited (mean age 14.9 years; SD 1.47; age range: 12–17 years). A diagnostic profile was compiled for each patient using the PDM. Plasma levels of liver enzymes, proteins and pseudocholinesterase were measured. BMI and an index expressing the speed of variation of the BMI between the onset of the disorder and the time of evaluation (speed BMIvar) were also collected. All subjects filled in the EDI-3, the STAI-Y (for the recognition of anxious traits) and the CDI (for the recognition of depressive traits).

Results: Seventeen (56.7 %) girls had a severe mental functioning impairment according to the MCA axis, 20 (66.7 %) presented serious personality distortions. These two conditions were significantly associated between them ($p < 0.05$). Subjects with a severe MCA or PCA profile showed significantly higher levels of liver enzymes when compared to girls with milder profiles. At the CDI, a higher occurrence of depressive traits was observed in subjects with a more severe MCA profile, even if only in terms of absolute values. At the STAI-Y, no differences were observed between subjects with severe MCA or PCA profiles and those with milder ones. In girls with severe MCA and PCA profiles, cytolysis enzyme γGT correlated with disease's duration ($p < 0.01$) and inversely correlated with speedBMIvar.

Discussion: More severe PCA and MCA profiles were correlated with more severe physical impairment (the risk of a liver dysfunction). The identification of subgroups of subjects with AN according to PDM axes could lead clinicians to play out the most appropriate treatment and to help formulating clearer disease prognosis, considering psychophysical implication.

Keywords: Anorexia nervosa, adolescence, psychodynamic diagnostic manual.

PT-062
Suicide attempts in children and adolescents in a Portuguese clinical sample: clinical implications and risk factors

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Background: In Portugal, although according to the Centre for Suicide Studies (NES) the suicide rate has been declining since 1991, there are very significant regional differences with the South to present overall rates 3–5 times higher than in the north. And despite of the overall rates having declined, among adolescents rates increased. According to the latest data from the National Statistics Institute (INE), 16 young people, minors, committed suicide in 2009, up more than doubled compared to previous years. In Portugal suicide is the second leading cause of death among adolescents, following road accidents.

Objectives: The aim of this study was to evaluate the socio-demographic context, clinical characteristic and risk factors of a sample of young Portuguese suicide attempters.

Materials and methods: It is a retrospective descriptive study. Between January and December 2009, we evaluated 89 patients with a mean age of 15.28 (SD 1.44) years (78.7 % women) admitted in a emergency consultation, for suicidal behaviour at the Children and Adolescent Psychiatry Department at Oporto Hospital Centre. Demographic data of the participants were registered. Clinical interviews based on DSM-IV criteria, were done by a child and adolescent psychiatrist. Family and personal history, personal and environmental risk factors, as well as severity of the attempt were evaluated.

Results: There were 70 girls and 19 boys. Mean age at suicidal attempt was 15.28 years (SD 1.44). Twenty-seven percent had previous suicide attempts and 60.7 % had a previous psychiatric treatment. The mean number of years of instruction was 9.01 years (SD 1.59). 91 % of suicide attempts were with drugs. The presence of a psychiatric disorder aggravates the prognosis; depressive disorders are particularly related to a high risk of repetition.

Conclusions: The population studied shows a high incidence of prior suicidal behaviour, most of the cases were female and the most frequent method used was drug overdose. All these data are in accordance to the existing literature.

Keywords: Adolescent; suicide, attempted, drug overdose.

PT-063
Effect of depressive symptoms and life events to the quality of life in a school population

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Background/aims: Life events play a role in the development of childhood depression and major depression lowers subjective quality of life (QoL). There are lots studies about factors decreasing QoL in general and even less on child and adolescent samples. The relationship between mental disorders and QoL is not well studied either. In the present research we studied the quality of life in a school population and the relationship of QoL to the number of stressful life events (SLE) and the severity of depressive symptoms.

Methods: The sample consisted of 9 elementary schools in Hungary. 2620 children were tested between 7 and 15 years of age (mean age: 10.45 years (s.d. 2.2). There were 1,160 boys (44 %) and 1,460 girls (56 %). Stressful life events were collected by parental report, depressive symptoms were assessed by short version of CDI, quality of life was measured by self-report and parental questionnaires (ILK).

Results: Both stressful life events and depressive symptoms have a significant negative effect on subjective QoL overall and individual QoL domains. The effect of depressive symptom severity is much larger than that of the SLE. When comparing the parent and child opinions about the QoL of the child, we can see that depressive symptoms are more important in children's opinion while SLE is more negative in parents' opinion. Stressful life events effect subjective QoL directly (50 %), indirectly (50 %) through depressive symptoms.

Keywords: Depression; quality of life; schools; depressive symptoms.

PT-064

Electroconvulsive therapy in a adolescent with neuroleptic malignant syndrome: case report

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Neuroleptic malignant syndrome is a rare, although potentially life-threatening adverse reaction to antipsychotic drugs that is characterized by fever, severe muscle rigidity, autonomic and mental status change and laboratory abnormalities. Recent data suggests na estimates of the incidence of NMS of 0.01–0.02 %. Almost all antipsychotics have been associated with NMS, both typical and atypical. Besides suspending the offending agent, for mild cases, supportive care and careful clinical monitoring may be sufficient. However, in severe cases, more aggressive measures should be taken, including specific pharmacological agents (such as dantrolene or bromocriptine) or electroconvulsive therapy. Electroconvulsive therapy (ECT) is a recognized and effective treatment for several psychiatric and neurological conditions in which the use of pharmacotherapy is ineffective, untimely or contraindicated. However, it is seldom used in children and adolescents despite the research that has been conducted on its use in such populations. A case of neuroleptic malignant syndrome induced by haloperidol, risperidone and paliperidone that successfully resolved after intensive electroconvulsive therapy is presented. It is the case of a 15 year-old female adolescent, presenting severe first-onset psychotic symptoms. She had been medicated withboth antipsychotics before admission. On admission, former drugs were suspended and she was medicated with olanzapine. Approximately 7 days after admission the patient persisted agitated and further developed fever with increased muscle rigidity, muscle tremor and sialorrhea. Analytic abnormalities (elevated serum levels of creatinine kinase, lactic acid dehydrogenase and leukocytosis) were detected. A complete organic evaluation was performed (including MRI and immunologic studies). Despite imediate suspension of all antipsycothics the patient further developed acute renal failure and hepatic citolysis. She was admitted to a pediatric intensive care unit for 5 days. She was medicated with benzodiazepines, biperidene and bromocriptine but maintained a catathonic-like behavior. After obtaining the family's consent intensive electrocovulsive therapy (2 series of 6 bilateral treatments) was performed. The patient presented significant improvement of general symptoms and mental status, was discharged and is now followed in an outpatient basis. She is currently medicated with aripiprazole, with no adverse effects detected, including analytical controls. The authors reviewthe incidence and management of MNS as well as the use of ECT in the adolescent population; its indications, administration, contraindications and risks.

Keywords: Adolescent, neuroleptic malignant syndrome, electroconvulsive therapy.

PT-065

Evaluation of the daily life of children and adolescents with Pervasive developmental disorder (PDD) using the questionnaire: children with difficulties (QCD)

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Purpose: The aim of the study was to evaluate the daily life of children and adolescents with Pervasive developmental disorder (PDD) using the questionnaire-children with difficulties (QCD). The QCD is comprised of 20 questions related to activities that occur during specific periods of the day. Higher scores indicate higher life function and less difficulty.
Method: There were two subject groups consisted of elementally school children and junior high school students: the PDDgroup and the control group. The PDD group were 420 elementally school and junior high school students diagnosed with PDD according to DSM-IV-TR. The control groupwas consisted of 1708public junior high school students. The data of the QCD amongthe PDDgroup wasobtained from the patient clinicals'records. The data of the QCD amongthe contol groupwasobtained from 1,708 parents who were giveninformed consent to the mailed surveyand whom questionnaire sheets were filled out completely. The effects of genders (males, females) and diagnosis (PDDgroup, control group) on the total score of the QCD were analyzed using two-way analysis of variance. The Spearman's rank correlation coefficient was calculated to examine whether the total score and subscores of the QCD correlated with the score on The Tokyo autistic behavior scale (TABS).
Results: The total score of the QCD in the PDD group was 27.6 (S.D.:10.6), and the total score of the QCD in the control group was 45.4 (S.D.:8.6). The total score of the QCD of the PDD group was statistically significantly lower than that of the control group ($p < 0.001$). The all subscore of the QCD of the PDD groupwas lower than the control group regardless of gender and a time zone. The total score of the QCD was significantlycorrelated with the scores on TABS ($r = -0.338$, $p < 0.001$).
Discussion: The use of the QCD on PDD children enables to evaluate their lives every time zone through a day. It is also expected to provide clinicians with necessary information about selecting appropriate drug in medication.

Keywords: PDD, QCD, questionnaire, daily life.

PT-066

Parents experiences, accessibility of information re specialised services

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The objective of my research is to explore Irish families experiences on their journey towards referral to specialised professionals for treatment of eating disorders. There is a limited amount of research into eating disorders in Ireland with no simular research available. My Motivation for this study is due to my experiences of working with families for the specialised treatment of eating disorders across varying child and Adol environements over the past 10 years. In my experience there has been a common theme for the families that i encountered, which was that this journey was often lenghty with multiple professionals from varying disciplines involved prior to reaching CAMHS/PSY LIASON. Families had often reported feeling hopeless re the avaiilability of compentent trained professionals due to there experience prior to camhs referal. I plan to use a questionaire approch, with open and closed questions, attempting to capture the lived experiences of these families while at the same time attempting to gather quantative data. A pre paid postal system responce will be used to parents attending Child and adol mental health services for treatment of eating disorders. Questionaire will not be time consuming, and designed using user freindly simple format design. My study is on going, due for completion May 2013. My hypothesis is that there is a need for a clinical pathway from primary care, threw to Camhs. I will make reference to the abscence of a National Eating disorders specialised team and that this falls within the remit of child and adol mental health generic teams, dispite goverment policy A vision for change which outlines the appropiate services as a National eating disorders unit based in 1 of the pediatric hospitals.

Keywords: Accessibility, parents.

PT-067

Cognition related symptoms remain in remitted bulimic patients

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Objective: There is no consistent definition of a successful outcome in Bulimia nervosa (BN). It is suggested that behavioral and cognitive symptoms may influence the clinical outcome of BN. However, criteria very often used in past research only included the absence of binging, purging and fasting for a period of 3 months, a body mass index >18.5 and normal eating behaviors. The aim of the present study was to evaluate cognition related symptoms in long-term remitted patients with BN (BNrem) in comparison with acutely ill patients (BNacute).

Methods: Thirteen female patients with acute BN (aged 20.6 ± 3.1 years., BMI 21.5 ± 2.4 kg/m^2), twelve remitted female patients with BN (24.6 ± 2.5 years., BMI 21.9 ± 1.4 kg/m^2, mean period of remission was 4 ± 1 years) and fourteen female healthy controls (aged 25.1 ± 2.6 years, BMI 20.9 ± 2 kg/m^2) were included. For evaluation of symptomatology the different questionnaires (SIAB, EDI-2, ASR, a questionnaire concerning perceived competence and locus of control (FKK), Frankfurter Scales of Body Concepts [FKKS]) were used.

Results: BN related symptoms were found to be significantly reduced in remitted patients with BN when compared to acutely ill patients, e.g., drive for thinness, distorted body image, bulimic symptoms, general psychopathology, interoceptive awareness and maturity fears improved significantly ($p < 0.001$ to $p < 0.01$). However, drive for thinness, body dissatisfaction, self-acceptance, self-concept-perception and perceived competence and control beliefs were found to be significantly impaired in remitted patients with BN when compared with HC ($p < 0.001$ to $p < 0.01$).

Conclusions: Cognition related symptoms were found to be more consistent in remitted patients with BN when compared to behavioral symptoms, even in long-term remitted patients with BN that matched established and well-defined criteria for remission. We suggest that continuing cognitive therapy even when bulimic symptoms are showing a significant decline might be of clinical benefit with respect to cognition related symptoms.

Keywords: Bulimia nervosa, remission, cognition.

PT-068

Psychopathological characteristics of adolescents who self-harm: preliminary results

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We present preliminary results of an ongoing study of psychopathological features of adolescents (N = 100, 14–18yoa, mean age 17 years) with direct and/or indirect deliberate self harming (DSH) behaviour and without such behaviour. 20 % of boys (N = 42) and 70 % of girls show direct DSH behaviour, 30 % of boys and 70 % of girls show indirect DSH behaviour, 80 % of all patients with DSH also show IDSH. During their initial interviews with the child and adolescent psychiatrist (a University Hospital Department) they fill out a set of questionnaires (personal and family data, relations to parents, defence styles, syndrome scales, self harm). Detailed data analysis will be presented at the Congress.

Summary: We present preliminary results of an ongoing study of psychopathological features of adolescents (N = 100, 14–18 year, mean age 17 year) with direct and/or indirect deliberate self harming (DSH) behaviour and without such behaviour. 20 % of boys (N = 42) and 70 % of girls show direct DSH behaviour, 30 % of boys and 70 % of girls show indirect DSH behaviour, 80 % of all patients with DSH also show IDSH. During their initial interviews with the child and adolescent psychiatrist (a University Hospital Department) they fill out a set of questionnaires (personal and family data, relations to parents, defence styles, syndrome scales, self harm). Detailed data analysis will be presented at the Congress.

Keywords: Psychopathological features, adolescents, DSH.

PT-069

Intelligence and ADHD: diagnostical implications in clinical practise

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The prevailing report by BARMER health insurance Germany reports, that roughly 20 % of the insured boys born in 2000 are diagnosed with “ADHD”. In comparison with the presumed prevalence rates (e.g. Polanczyk et al. 2007) this displays a significant increase which doesn′t seem to be evidence-based. We rather see a waxing tendency to sublimate different childish behaviours under this syndrome and thereby loose the proper specifics of it. This consequently challenges the efficiency of therapeutic intervention. The need for specific diagnostics becomes clear when faced with the challenge of singling this syndrome out of the pool if “collective diagnoses”. But mostly the used questionnaires only grasp selected syndromes with subjective incidence and degree of severity and without the possibility to objectify. Psychometric measurements of attention- parameters display a vague link to attitude-monitoring and laying down a diagnosis. In our study we searched for variables witch offer a better psychometric base of an ADHD- diagnosis, witch special focus to individual intellectual skills and situational factors as influence parameters. Method In our sample (n = 101, age 6–10) a paper–pencil-test was done in each case in a single and a group situation.

The length of 21 min and the division into high or low situational diversionary potential seemed adequate to increase the ecological validity of the measurement by simulating school situation. Included were girls and boys with ADHD-diagnosis, compared by a control group. Effects of chronological single and group test order were controlled. The intellectual ability was tested by standard test battery. Test parameters were measured and compared both intraindividual and in group using single compare tests (t-test) and multivariate testing procedure with attention- parameters as dependent variable.

Results:

- In contrast with middle- and low gifted children the classical attention- parameters of ADHD-children with good or higher intellectual skills normally reach the standard range (percent range between 25 and 75).
- ADHD-children with good or higher intellectual skills show specific different concentration profile over time.
- For ADHD-children with good or higher intellectual skills the difference between group test and single test seems to be more influenced by situational factors, high potential of diversion decreases the test scores significantly.
- Results of multivariate interaction analyses show, that children with ADHD do significantly different react on situational factors, depending by intelligence, ADHD characteristic an interaction of both.

Conclusion: The relation of ADHD and attentional performance is moderated by personal (intelligence) and situative (single vs. group, potential of diversion). An exact psychometric ADHD—diagnostic needs different standard test situation and the inclusion if personal intelligence.

Keywords: ADHD, concentration, intelligence, situational factors, potential of diversion.

PT-070

Quality of life of adolescents who self-harm—preliminary results

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The purpose of this study was to examine some aspects of quality of life among Croatian adolescents with respect to adjusted WHOQOL-BREF questionnaire. During the initial interview with the child and adolescent psychiatrist (at University hospital department) patients filled out a set of questionnaires. The sample consisted of 100 participants, range 14–18 years of age, mean age 17 years. In self harming group (adolescents with deliberate self harming—DSH and indirect deliberate self harming—IDSH) there were 47 participants, 78.7 % girls and 21.3 % boys, and in non-self harming group there were 53 participants, 28.8 % girls and 79.2 % boys. Compared with the non-self harming group, DSH/IDSH patients had significantly lower scores in adjusted WHOQOL-BREF domains. Detailed data analysis will be presented at the Congress.

Keywords: QoL, adolescents, DSH.

PT-071

The impact of revolution on Tunisian's adolescent identity

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Introduction: Adolescence, described as a stormy revolution, is inevitably crossed by the issue of identity. How could identity be affected if even the society that the teenager belongs to, goes through a crisis, a revolution?

Methodology: This is a prospective comparative study on 152 students aged 14–19 years. We used a self-administered questionnaire composed of 25 items, exploring the identity, which was passed in 2007 and 2012, one year after the Tunisian revolution.

Results: Material problems are the major complaining for both years. Adolescents place less importance on values and paternal models. Teens described more trust in others and more freedom to express their feelings. There was also less sense of malaise in 2012 and no difference in body image and depressiveness.

Conclusion: Revolution affected on the most the freedom of expressing itself, and the symbolism of paternal models.

Keywords: Identity; teenager; comparative study; tunisian.

PT-072

Midfield: the nemesis of children with subtle neuro-developmental difficulties

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From an early age, children are intrigued by throwing and kicking things. This often starts with tossing cuddly toys out of their cot, and moves on to more interactive games with their parents. By the time they start school, these early play experiences have been transformed into competitive participation in different sports. Given its ready availability, most boys will play football at some time, and quickly develop hero-worship of famous players. Of these, flamboyant midfielders such as David Beckham, George Best and Zinedine Zidane attract frequent attention. Within child and adolescent mental health, a high percentage of our work relates to "disorganised children", almost always boys, who present with elements of ADHD, autism, tics, dyslexia and dyspraxia although they often fail to meet the strict diagnostic criteria for a particular diagnosis. However, their presentation is very consistent with neurological deficits of sufficient severity to active impede their emotional, social and academic progress on a daily basis. Like other boys, these "disorganised children" also aspire to play in the midfield, just like their chosen heroes. Unfortunately, they lack the cognitive flexibility and robust temperament needed to play in this position, and may instead present as defiant, disobedient, oppositional and anti-social within football settings. As a result, in spite of their exceptional footballing skills, they become quickly marginalised and excluded. The aim of this presentation is therefore to highlight the needs of this very interesting and yet often overlooked group of children. It will focus on how their neuro-developmental difficulties impact on their judgement and decision-making within football games, and how coaches and managers can get the most out of these children by moving them to different positions on the field. We will also highlight how neuro-developmental difficulties can contribute to good refereeing, and the wider advantages of understanding these "disorganised children".

Keywords: Football Neuro-development.

PT-073
Methylphenidate for suicide attempt

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Introduction: There are a few reported cases of overdose for suicide attempts with methylphenidate. Majority of these cases fully recovered after supportive therapy[1,2,3]. We present a patient who experienced increased heart rate (HR) and blood pressure (BP) after ingestion of 3,240 mg long acting methylphenidate (Concerta) for suicide attempt.
Case report: 14 year old boy with ADHD was using methylphenidate for 3 years. In August, he attempted suicide impulsively after an argument by the ingestion of 60 tablets of Concerta 54 mg. Approximately two hours after ingestion he felt palpitation. He was immediately brought to emergency unit of Bakirkoy Sadi Konuk Hospital. In initial evaluation he was conscious and cooperative. His Glasgow Coma Scale Score was 15. His BP was 147/71 mmHg, pulse rate (PR) was 124 beats/min, respiration rate (RR) 20 breaths/min and oxygen saturation of 97 SpO_2. ECG findings were normal, except for sinus tachycardia. Laboratory tests were normal. Fifty grams of active charcoal was administered in the emergency room. He was observed for 8 h at the emergency unit. His last BP, PR and oxygen saturation were normal.
Discussion: The overdose of methylphenidate can be seen only in emergency clinics due to suicide or abuse. Therefore, there are only a few cases of overdose with short acting methylphenidate. Methylphenidate overdose leads to a wide range of clinical manifestations, related with primarily neurologic and cardiovascular system. In this case, approximately 3.2 grams methylphenidate ingestion was much higher than other reported cases[2,3]. In literature the majority of overdoses with methylphenidate was asymptomatic, and treated at home in these age groups. However, overdoses in adolescents occurred with drug abuse or suicide attempt and mostly symptomatic[5]. Although huge amounts of methylphenidate, his general condition and findings were good. Only sinus tachycardia and increased BP was detected. Severe toxicity and deaths has been reported for both intravenous and intraarterial administration of crushed methylphenidate tablets. However we could not find any death case in literature due to unintentional or suicidal ingestion of methyphenidate. Since methylphenidate misused in combination with other drugs, other drugs should be investigated in cases with intoxication[3]. Unintentional or intentional poisoning may increase due to increased prescription. Although no serious neurological or cardiovascular event happened in this case, a supervised stimulant use is needed in child and adolescent population.
Keywords: Methylphenidate, suicide, ADHD.

PT-074
Prescribing and monitoring clozapine for children and adolescents: The Irish Experience

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Introduction: Clozapine therapy may be appropriate for some children and adolescents with psychotic disorders or bipolar illnesses who do not respond to other forms of pharmacotherapy. The initiation, prescription and monitoring of Clozapine is dependent on certain arrangements being in place; this can be a potential barrier to clinicians using Clozapine when it is clinically indicated. Barriers to treatment can create delays in treatment which in turn may adversely affect outcomes.
Aims and methods: The aim of the study is to detail the experiences of child and adolescent psychiatrists in prescribing and monitoring clozapine within their practice; and to identify barriers and challenges in using this medication. An online questionnaire was designed and circulated by email to Child and Adolescent Psychiatry clinicians in the Republic of Ireland.
Results: A total of 38 questionnaires were returned and analysed, of which two-thirds of respondents ($n = 24$) were consultants. Majority of respondents (68 %) carry out their clinical work in CAMHS setting, while 18 % worked in an inpatient unit. Half of respondents have prescribed Clozapine in their previous or current practice, of which 19 % currently prescribe clozapine. All cases of clozapine initiation were carried out within a CAMHS inpatient unit. 44 % of respondents reported the current process of clozapine prescribing and monitoring in their service is unsatisfactory, while 14 % reported that they have been unable to prescribe clozapine even when they wanted to. The reasons cited were: absence of a dedicated clozapine service, insufficient monitoring structure in place, lack of in patient beds and challenges faced during transition from inpatient to community for follow up.
Conclusions: Clozapine is being prescribed for children and adolescents with psychosis where clinically indicated. However, there are considerable barriers to initiating and monitoring this medication which may delay treatment for some patients, while others may exclude Clozapine as a treatment option. Ultimately this compromises patient care. As CAMHS services assume increasing responsibility for older adolescents the demand for Clozapine as a treatment option will increase. Consideration needs to be given as to how we overcome the obstacles identified to using Clozapine. The search for solutions might best begin with discussions at Child and Adolescent Psychiatry Faculty level (College of Psychiatry of Ireland).
Keywords: Clozapine, schizophrenia, prescribing, specialist clinic, psychosis.

PT-075
Clinical aspects of suicide behavior in a Hungarian clinical sample

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Suicide is one of the most dangerous forms of human behavior. According to the World Health Organization, each year 123,853 people commit suicide. According to suicide ratio, Hungary is the 2nd largest country in Europe, and the 5–6th country in the world. In the literature, the suicide behavior is increasing among adolescent age, the suicide attempts and self-harm are more frequent in girls than in boys.
Aim: The aim of this study was to analyze some sociodemographic and psychosocial factors of those child-and adolescent patients, who were admitted to our department because of suicide behavior between

2007 and 2010. Our hypotheses were: (1) Suicide behavior is more frequent in adolescent age. (2) Girls are more likely commit self-harm. (3) Unstable family background, urban environment and depression may be risk factors for suicide behavior. (4) Number of siblings, type of school, and academic achievements may be influencing factors as well.

Materials and methods: We reviewed the admission files of patients showing suicide behavior in our department between 01 January 2007 and 31 December 2010. We analyzed the following data: age, gender, family background, place of residence, type of school, academic achievement, the score of psychological tests (Intrafamiliar Relations Questionnaire—IFR, Children's Depression Inventory—CDI). SPSS 17 statistical software was used to evaluate our data.

Results: In the above mentioned period 229 children and adolescents were admitted to our department because of suicidal behavior. 117 of our patients had suicide attempt, 112 had suicidal thoughts or threats. The average age was15.17 ± 1.8 years. Above 13 years, the suicidal behavior gradually increases. The gender distribution was: 76 boys (33.2 %) and 153 girls (66.8 %). In our sample 170 (74 %) of the patients lived in an urban area, 103 (45 %) had broken family. 52.4 % of patients had intrafamiliar problems according to IFR. Patients having more siblings showed less suicidal behavior. In our sample, 69.87 % showed significant depressive symptoms according to CDI. 82.97 % of patients attended normal schools, their study results were average.

Conclusion: Our study supports, that adolescent age, female gender, unstable family background and urban residence are risk factors of suicide behavior also in Hungary. Having more siblings seems to be protective factor. In addition, our findings highlight the importance of a multidisciplinary cooperation in the treatment and further support of suicidal children and adolescents.

Keywords: Suicide behavior, child-and adolescent.

PT-076

Managing the managers

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Since its inception, the NHS has always been sensitive to political and financial pressures. However these issues were previously addressed largely at national and regional levels, and seldom impinged on grass roots clinicians in the therapeutic setting. Over the past decade, this structure has altered significantly with the advent of fund-holding practices, purchasing/providing, commissioning, PCGs and now PCTs. As a result, clinicians can no longer function outside of the political and financial framework of NHS developments, and managerial roles and responsibilities are increasingly being taken up by clinical staff. This escalating move towards clinicians taking greater responsibility for their own professional and clinical destiny is clearly a positive development. However, it is all too easy for managerially inexperienced clinical staff to become absorbed into financial and political agendas which do not always operate in the best interests of their service, their patients or their colleagues. The role of clinical managers is therefore not simply to orchestrate effective therapeutic services but to maintain an appropriate balance between managerial responsibilities, clinical integrity and professional identity. The aim of this workshop is therefore to explore the tensions between managerial and clinical roles with CAMHS clinicians, with an emphasis on developing services within the NHS whilst remaining true to oneself and one's profession. It will be presented by three senior and experienced CAMHS clinicians who have all been Clinical Directors during the last 10 years, and who have taught regularly on NHS management difficulties from both practical and psychological perspectives. The learning goals of the workshop are to assist CAMHS trainees and recently appointed CAMHS consultants to develop insight into NHS political and financial pressures, and how these will increasingly be impinging on ordinary clinicians at the coalface. Guidance and practical input will also be provided on how to best approach difficult management problems, and how to act in the best interests of patients in spite of competing agendas. The intended methods involved will include short presentations, group discussion and question/answer interactions. At the end of the workshop, participants should be more familiar with NHS management structures, understand better how to work effectively with managers in the interests of patients care and have gained insight into the complexities and competing.

Keywords: Management strategy.

PT-077

The manualized zarima intervention: a pilot study of primary prevention of eating disorders

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Introduction: The ZARIMA Prevention Group multi-disciplinary team which works on ED has developed a community action programme to promote mental health through primary and secondary prevention (published in Directory of Projects in Europe, Mental Health Promotion of Adolescents and Young People M.H.E. financed by the European Commission).

Method: The intervention consisted of 5 weekly sessions of 120 min duration. It was integrated into the regular school hours, with small group activities, involvement techniques in eating nutrition, body image, gender differences, sociocultural influences, self-esteem/self concept and social skills. Work was effected with adolescents, parents and teachers with ZARIMA programme This combined teacher assessment, parent training, and skills training. Different technical and methodological approaches were applied, included role-playing, discussion within small groups, videotape, slides, drawing, performance. The interventions were designed to reach the students on cognitive, emotional and behavioural levels. The interventions were conducted in a coeducational setting without a separate curriculum for male or female students. Standardised psychological measure (EAT-26, SCAN with DSM-IV, ICD-10 diagnosis) is used with the intervention and control group, pre- and post-intervention. One year later a booster session on nutrition and body image, was given with a DVD video and a pamphlet, for pupils, and another for parents. Guide has been published for the prevention of ED and is distributed free of charge.

Results: The ZARIMA programme has proved to be effective when evaluated scientifically (result in a decrease statistically significant in the incidence of eating disorders in intervention group) at the 1 year follow-up using standardized methods. After 12-month follow-up the risk of ED in the intervention group was almost one-third that in the control group (4.1 vs. 10.5 %), and the incidence of ED significant decrease in intervention group but not in control group (0.0 vs. 2.7 %).

Conclusion: The number of subjects of this pilot study was small. It would therefore be inappropriate to generalize from its findings. Additional research was needed on using a testing this program with a more divergent and larger sample with randomised controlled trial with measurements pre- and post-intervention. A replication was required, a multicenter research project financed by F.I.S. PI 05/2533 (Spain Health Department). Our previous study provides preliminary evidence that the primary prevention of ED in adolescents in school is possible. Our findings in replication study suggest that school interventions for adolescents is useful in prevention of ED.

Keywords: Eating disorders, prevention.

PT-078

Pressure garments regulate visual processing in Autism Spectrum Disorders (ASD)

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Background: Autism is a neurobiological disorder. It's very common, that persons with ASD have problems with sensory processing. Their senses might be hypersensitive or hyposensitive, which may cause behavior problems. Weighted blankets and vests are commonly used as a rehabilitation for autism, and this method has been found to work well. They have also been helpful in calming children with motoric restlessness and for improving body awareness.

Objectives: This study investigated whether pressure garments could benefit sensory processing of children with ASD.

Methods: The study had 32 participants with ASD behavior aged 9–23 years. Each individual exhibited challenging and/or aggressive behavior. 26 participants (81.3 %) have a comorbid learning disability diagnosis. 28 participants (87.5 %) were attending education and they need different kind of special support. The observations were collected by a Sensory Profile questionnaire before and after a period of using pressure garments.

Results: According to Sensory Profile questionnaire, filled in by parents, teachers and/or nurses show that the pressure garments statically significantly effect on sensory processing of persons with ASD. The simple linear regression model demonstrates that the effects of using pressure garments were most apparent in visual processing ($R^2 = 53$ %), multisensory processing ($R^2 = 55$ %) and touch processing ($R^2 = 48$). The regression model gives the best explanation of these rates which are statistically significant ($P < 0.05$). Thus, the pressure garments tend to normalize sensory processing.

Conclusions: According to previous literature, tactile stimulus has an important role in central nervous system. It is developed as first, before all other senses and it has important role in the development of other senses. Tactile stimulation spreads almost all over the brain. Tactile stimulation of pressure garments seems to affect sensory processing. In this study it appears clearly in i.a. visual processing. Pressure garments may be beneficial when individuals with autism integrate into society and thereby avoid social exclusion. Pressure garmentsmay have a possible role in the multimodal treatment of ASD.

Keywords: Autism spectrum disorders, pressure garment, deep pressure, sensory profile.

PT-079

Obsessive–Compulsive Disorder and Asperger Syndrome-two entities or a spectrum?

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Asperger syndrome is characterized by severe and persistent deficits in social interaction and communication and the development of patterns of behaviours, interests, and restricted and repetitive activities that cause clinically significant deficits in the subject's functioning at work, school, socially and within the family. Obsessive–compulsive disorder (OCD) has a prevalence of 1 to 2.3 % in the paediatric population, with two peaks of incidence (puberty and early adulthood), an earlier onset in males and usually presents a chronic course. It is classified in ICD-10 as a specific entity and in DSM.IV-TR as an anxiety disorder. However, many authors disagree with these classifications and propose the creation of an OCD spectrum, given the semeiotic and aetiological parallelism between OCD and disorders such as Tourette's syndrome, attention-deficit-hyperactivity disorder, eating disorder, generalized anxiety disorder, Trichotillomania, obsessive–compulsive personality disorder, agoraphobia, autism spectrum disorders, among others.

To what extent is it possible to differentiate repetitive behaviours, restricted interests and stereotypies of obsessive compulsive symptoms that meet criteria for OCD? Comorbidity between the two disorders is well known, both in the adult and in the paediatric population, making one believe the existence of common neuroanatomic, neurochemical and genetic factors. The occurrence of OCD in young people with autism spectrum disorder (ASD) is common with a prevalence of approximately 37 %, leading to worsening of symptoms and higher rates of social disability. Obsessive–compulsive behaviours seem common in a variety of psychopathologies. In ASD they are considered key features for the diagnosis, perceived as ego-syntonic and pleasure seeking; in OCD they are part of the cardinal symptoms, perceived as ego-distonic, and the compulsive rituals relieve the anxiety related to them. This study reports the case of a 17 years old patient, admitted to the Department of Child and Adolescent Psychiatry at Oporto Hospital Center (CHP), diagnosed with Asperger Syndrome and OCD. This work addresses the importance of the distinction between OCD comorbidity and Asperger Syndrome, for the adoption of effective therapeutic strategies.

Keywords: Obsessive–compulsive disorder, asperger syndrome, OCD spectrum, stereotypies.

PT-080

The attentional organization in preterm infants: preliminary results of a case–control study

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Introduction: Preterm childbirth occurs before 37 weeks of gestational age (GA). Studies in preterm infants have shown significant differences in psychomotor development among premature and born at term infants. Attention is a function that underlies the cognition (perception, memory and thinking) that develops in the early stages of life. According to this assumption, it has been drawn a path of observation of the preterm child which takes into account this particular function.

Aim: to explore the attention organization in a cohort of preterm infants compared to controls.

Patients and methods: We enrolled 20 infants (12 M; 8 F) divided in 2 cohorts (10 full term infants and 10 preterm infants) aged between 80 e 150 days. Median age and gender distribution were similar between cases and controls. Infants in preterm cohort have a GA between 20 and 37 weeks and a birth weight less than 2500 g. The cohort of preterm infants was evaluated considering correct age in months. We have evaluated development, attention and social functioning with Bayley Scales of Infant and Toddler Development III. We compared the profiles obtained for every children in each cohort and particularly we referred to the items that are considered early predictor of attention organization and socio-emotional development.

Results: The average of the scores obtained for each item considered was lower in the group of preterm compared with those born at term of pregnancy in all items explored (scanning the environment; regarding object for 3 s; habituates to the object; discriminates between object; regarding object for 5 s; Shifts attention; Show visual preference; Habituates to picture). We have evaluated also socio-emotional behaviour and we have obtained average composite score of 79.5 for preterm infants and 104.5 for full term infants; this result suggests a deficit in the context of the early phases of the socio-emotional behavior.

Conclusions: There are significant differences between the two groups about attention and emotional areas. The delays observed could contribute to alter the neuroevolutive trajectories of infants and possibly their subsequent development from infancy to adolescence. Early identification of these deflections is essential to take appropriate early intervention program and to monitor and reassess the development in order to identify changes and the effectiveness of therapeutic interventions undertaken.

Keywords: Preterm infants; attentional organization.

PT-081

The bidirectional relationship of nonrestorative sleep and psychological distress

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Fatigue and sleep disturbances are common symptoms in depressed and anxious adolescents. It is often assumed that these states of fatigue and disturbed sleep are by-products of psychological distress. However, the reverse is also a clinical possibility, which requires further investigation in child and adolescent psychiatry. There is strong evidence in adult sleep medicine literature that inadequate quantity and/or poor quality sleep (i.e. *nonrestorative sleep*) predisposes patients to cognitive and physical fatigue. Cognitive fatigue can present with problems in thinking, concentration, and memory. Multitasking becomes difficult and there is slowing in response times. Physical fatigue can present as overall physical exhaustion or reduced energy. Children and adolescents experiencing psychological distress, such as symptoms of anxiety or depression, should be evaluated for potential underlying sleep disturbances. Sleep disturbances may be a function of inadequate age appropriate length of sleep times or nonrestorative sleep. A 2 weeks sleep diary can be used is differentiating inadequate length or times of sleep, as well as point to possible underlying sleep instability. Overnight polysomnography studies are used to confirm the presence of unrecognized primary sleep disorders, including the presence of *cyclic alternating pattern (CAP)* and *alpha electroencephalography pattern (alpha-EEG).* Both of these are markers of sleep instability. High rates of *CAP* and *alpha-EEG* have been found to correlate with reports of nonrestorative sleep, cognitive issues with memory and concentration, daytime fatigue, variable musculoskeletal pain symptoms, and low or irritable mood. Reports of initial and terminal insomnia may be a function of the presence of *CAP* and *alpha-EEG* sleep disturbances. Patients with anxiety disorders or a history of trauma may also present with these markers of sleep instability. In the assessment of depressed adolescents, careful history may reveal that either restricted sleep or poor sleep quality preceded mood symptoms. Furthermore, SSRI and SNRI medications are known to fragment sleep and suppress REM, as well as exacerbate other primary sleep disorders, such as restless leg syndrome. Adolescents may report that the SSRI or SNRI medication may have improved their mood and/or anxiety but their energy remained low and/or their sleep became more disturbed. Further research is required to evaluate the bidirectional role of nonrestorative sleep in mood and anxiety disorders. More frequent use of sleep diaries, fatigue scales, and overnight polysomnographic studies in the assessment of underlying sleep disturbances should be taken into consideration in the management of psychiatric illness.

Keywords: Nonrestorative sleep, depression, anxiety, trauma.

PT-082

Identifying demographic and language profiles of children with a primary diagnosis of attention deficit (hyperactivity) disorder

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Aims: As the language and communication presentation of children with ADHD is highly complex, this study aimed to explore the demographic and language profiles of 36 school-aged children with a primary diagnosis of AD(H)D attending a child and adolescent mental health service. A secondary aim was to discern whether the children's language performance on testing bore any relationship to their subtype diagnosis of AD(H)D (i.e. inattentive, hyperactive/impulsive or combined). Profiling these children's skills may help to elucidate the nature of language functioning in this client group. Demographic variables within this clinic population were also of interest.

Method: Thirty-six children aged between 9 and 12 years were assessed on formal language tests in the areas of receptive and expressive language, receptive vocabulary and reading ability. All children were assessed over three 1-hour sessions by a speech-language therapist (SLT) and an SLT student. The profiles of all 36 children were analysed to ascertain (i) demographic variables (ii) whether an overall pattern of language functioning could be identified across the group as a whole and (iii) whether subtype presentation had any bearing on language performance on testing.

Results: Demographic variables of this cohort included a predominance of males, a predominance of the combined subtype of AD(H)D and the majority having a secondary clinical diagnosis, including for example Autistic Spectrum Disorder. Analysis revealed some common trends in the overall performance of the group, but a general AD(H)D-specific language profile was not easily discernable. Over 70 % of the sample cohort had language difficulties as assessed on a popular standardized language assessment, with half of these having both receptive and expressive language impairment. A third of the sample showed some levels of reading impairment, while only a fifth of the cohort demonstrated vocabulary comprehension difficulties on testing. There was some correlation between performance on receptive language assessment and performance on a vocabulary comprehension test. Particular AD(H)D subtype performances were not obvious, yet there were some individual profiles that prompted more in-depth consideration of a child's overall presentation, and as related to a diagnosis of AD(H)D in general.

Discussion and conclusions: The complexity of the language profiles of children with a primary diagnosis of AD(H)D is played out in our data, with heterogeneity of this clinical population an obvious feature. Male dominance and secondary diagnoses featured heavily among the cohort, the latter confounding any generalisations of AD(H)D-specific language profiles to be made. However, there was enough evidence of patterns of performance to allow us to clinically plan more carefully in designing language assessments and interventions for this client group, within the context of a multi-disciplinary team. Implications for further research and practice in this area are discussed.

Keywords: AD(H)D, language, demographic, impairment.

PT-083

Separation anxiety in adolescence with reference to sociodemographic factors

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Bearing in mind the fact that the process of separation-individuation, although significant throughout one's life, has a specific role in adolescence the primary aim of this paper was to investigate the relationship between separation anxiety (separation from mother and father) and different sociodemographic variables (gender, age, mathematical or linguistic preference in school, and sholastic achievement). The separation from both parents was investigated over four dimensions: functional independence, attitudinal independence, emotional independence and conflictual independence.

Sample: our research was conducted on the sample of 120 high school students. The sample contained 30 boys and 30 girls who preferred linguistics and the same number of boys and girls who had their preference in mathematics. One half of the sample was made up of subjects aged 15–17, while the second half was made up of subjects aged 17–19. The subjects were ranked according to their scholastic achievement.

Instruments: In our research we used *The Psychological Separation Inventory*(PSI)—Hoffman (1984) and a general purpose questionnaire stating gender, year of birth, school preferences.

Results: It turned out that the mean values on the three subdimensions of the separation (from mather and father)—functional independence, emotional independence and conflictual independence in the whole sample of our high school subjects were under the normative average values, while the category of attitudinal independence was shown to be slightly above the normative mean values. The results also indicate that the older group of subjects has a statistically significant percentage of attitudinal independence with reference to both parents and that it is emotionally more independent regarding their relationship with father, in other words more conflictually independent in their relationship with mother. The conflictual independence of the separation from mother is statistically significantly tied to the school preferences ($p < 0.05$). This sociodemographic variable is also closely connected with attitudinal independence from father $p < 0.01$).We were able to draw a conclusion that pertaining to the issue of separation anxiety in adolescence there are specific features regarding the positions of mother and father. As it is, the age differences among adolescents and their professional preferences appear to have reflected the degree and nature of the separation from bothe parents.

PT-084

Biomarkers for Neurodevelopmental Disorders

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Background: Much progress has been made in the ubiquitous recognition of attention deficit hyperactivity/hyperkinetic disorder (AD-HKD) as a distinct neuro-pathological entity, yet its full biological underpinnings have not yet been fully elucidated. Although most therapeutic agents appear to exert a dopaminergic effect, certain clinical diagnostic features are considered to be related to serotonergic function. This can lead to, at times, a lack of clarity around both diagnosis and treatment. A recognised association exists between AD-HKD and Autistic Spectrum Disorders, with both disorders recognised as having a neuro-developmental basis and a high degree of co-morbidity observed in clinical practice.

Aims: This study is a case control study which furthers previous research measuring urinary 5-H1AA. Using validated methodology, this study will extend testing to AD-HKD children of both sexes and will include preliminary studies of children with confirmed Autistic Spectrum Disorder. Urinary 5-H1AA levels, serotonin and dopamine will be measured in medicated and un-medicated subjects. We postulate that subjects with ADHD and ASD will have altered levels of 5H1AA and that this biomarker will vary by sex and administration of stimulant medication. The ASD arm of the study is exploratory in nature and focuses on the putative role of endocannabinoids and biomarkers of oxidative stress in ASD subjects and matched controls.

Methods: A test group of 20 children with a confirmed diagnosis of AD-HKD attending child and adolescent mental health services were recruited together with an age and gender matched control group. 10 children with ASD were recruited to participate in the exploratory arm of the study. A mid stream urinary specimen was taken from all participants and analysed with a liquid chromatographic mass spectrometry assay.

Results: Quantitative measurements were carried out for each of the potential markers in the urine samples collected. All quantitative measurements of urine samples were presented as a ratio of urinary creatinine concentration to correct for differences in kidney function. We previously identified 5-HIAA as a potential biomarker for AD-HKD and validated the analysis of serotonin, its key metabolite hydroxyindole acetic acid (5-HIAA) and dopamine in urine using a nanoelectrospray-MSn method interfaced with an LTQ Orbitrap mass spectrometer. Statistical analysis indicates that 5-H1AA was significantly lower in the test population, in comparison to healthy controls ($p < 0.001$).

Keywords: Biomarkers neurodevelopmental disorders.