

# **Keynote Lecture 1: Maria Melchior**

# 4108 - Social inequalities in children's mental health - from observation to prevention

Dr Maria Melchior

Children growing up in poverty have high levels of emotional and behavioral problems, which can hinder well-being, school achievement and social integration, as well as predict the occurrence of psychiatric disorders later in life. Population-based studies indicate the existence of a socioeconomic gradient with regard to child mental health. That is the effects of low socioeconomic position are not curtailed to groups of individuals who experience poverty, but are widely distributed. I will present data from contemporary epidemiological studies documenting socioeconomic inequalities with regard to child and adolescent mental health across different socioeconomic indicators, different forms of psychopathology and different age groups. I will also show currently available evidence suggesting that changes in families' socioeconomic circumstances can have beneficial effects on children's mental health. Finally, I will suggest possible avenues for intervention which could help reduce socioeconomic inequalities with regard to child and adolescent psychopathology.



# **Keynote Lecture 2: Patrick McGorry**

# 4110 - Transition to 21st Century Mental Health Care: Early Intervention for Young People with Emerging Mental Disorders.

Prof. Dr. Patrick McGorry

Orygen, The National Centre of Excellence in Youth Mental Health, Centre for Youth Mental Health, The University of Melbourne, Melbourne, Australia

Mental and substance use disorders are among the leading health and social issues facing society, and now represent the greatest threat from non-communicable diseases (NCD) to prosperity, predicted by the World Economic Forum to reduce global GDP by over \$16 trillion by 2030. This is not only due to their prevalence but critically to their timing in the life cycle. They are by far the key health issue for young people in the teenage years and early twenties, and if they persist, they constrain, distress and disable for decades. Epidemiological data indicate that 75% of people suffering from an adult-type psychiatric disorder have an age of onset by 24 years of age. Young people on the threshold of the peak productive years of life have the greatest capacity to benefit from stepwise evidence-based treatments and better health care delivery. Furthermore, the critical developmental needs of adolescents and emerging adults are poorly met by existing conceptual and service models. The paediatric-adult structure of general health care, adopted with little reflection by psychiatry, turns out to be a poor fit for mental health care. Youth culture demands that young people are offered a different style and content of service provision in order to engage with and benefit from interventions. In Australia a new system of enhanced primary care, headspace, has been developed for 12 - 25 year olds. This is now operating in 100 communities in Australia. Access has been greatly improved especially for some traditionally hard to engage subgroups. Outcomes include reduced distress, better functional outcomes and reduced self harm. Similar programs are in place in Ireland, France, Israel, the UK and Denmark and are under development in Canada and the Netherlands. The need for international structural reform and an innovative research agenda represents one of our greatest opportunities and challenges in the field of psychiatry and a huge opportunity for child and adolescent psychiatry which may be able to "come out of its shell" and form the vanguard of mental health reform.



# **Keynote Lecture 3: Patrick Luyten**

# 4111 - A radical shift in the treatment of child and adolescent depression Perhaps the time ripe?

Professor Patrick Luyten

Patrick Luyten, PhD is Associate Professor at the Faculty of Psychology and Educational Sciences, University of Leuven, Leuven, Belgium, and Reader at the Research Department of Clinical, Educational and Health Psychology, University College London, London, UK

Depression ranks among the leading causes of disability, morbidity, and mortality in young people (YP). Although the last decades have led to considerable progress in our understanding of the causes of mood problems in YP and in the development of effective treatments, limitations of current theoretical and intervention approaches have also become increasingly clear. First, with regard to diagnosis, there is a clear shift away from a categorical, disease-oriented model to a dimensional approach that focuses on underlying systems implicated in psychopathology. The Research Domain Criteria (RDoC) is a good example of this change in approach. Second, with regard to treatment, although a variety of effective interventions for pediatric depression have been developed, they are equally effective, response rates are realtively low, with a substantial number of YP dropping out of treatment and thus being "hard-to-reach". Together, these findings force us to ask the "hard questions" about our views concerning the nature of depression and its treatment in YP.

Based on evolutionary biological and developmental psychopathology considerations, we present an integrative developmental cascade model of depression that essentially suggests that depression emerges out of a three-pronged series of interacting impairments in the domains of stress regulation, reward, and mentalizing (SRM).

We also focus on how this model may explain in large part the heterogeneity and thus marked comorbidity of depression with other psychiatric disorders, as well as with functional somatic and somatic disorders.

We outline the implications for the development, evaluation, training and dissemination of interventions for YP with depression.



# **Keynote Lecture 4: Tony Charman**

# 4115 - Tracking the emergence early autism symptomy in at-risk infants: Possibilities for prodromal intervention?

Prof. Tony Charman King's College London

Until recently, most of what we knew about the emergence of autism in infancy relied on retrospective accounts. A new approach, the study of infants at familial risk, aims to identify the earliest "pure" manifestations of autism, before subsequent years of atypical development exacerbate, or compensate for, initial atypical development. An emerging picture from these studies is that early impairments in one or more of several functional cognitive systems are associated, respectively, with familial risk and with a later autism diagnosis. Understanding the temporal associations between these impairments over time will reveal the underlying mechanisms of atypical development in autism and inform approaches to early intervention. I will present new data from our ongoing prospective longitudinal and intervention studies.



# **Keynote Lecture 5: Dieter Wolke**

# 4109 - Peers and siblings matter for mental health: long term consequences of bullying

Prof. Dr. Dieter Wolke University of Warwick

## Objective:

This keynote presentation will review longitudinal research on the effects of bullying in childhood on mental health and economic functioning into adolescence and adulthood. Bullying is the systematic abuse of power and defined as aggressive behaviour or intentional harm doing by peers that is carried out repeatedly, and involves an imbalance of power, either actual or perceived, between the victim and the bully. One in 3 children report having been bullied at some point in their lives, and 10 - 14% experience chronic bullying lasting for more than six months. Being bullied by peers is the most frequent form of abuse encountered by children, much higher than abuse by parents or other adult perpetrators.

### Methods:

Review of propsective longitudinal studies.

#### Results:

Children who were victims of bullying are at higher risk for common somatic problems, internalizing problems and anxiety disorder or depression disorder and at highly increased risk to self-harm or think about suicide in adolescence. The mental health problems of victims and bully/victims remain in adulthood. Indeed, we showed that peer bullying in childhood has more adverse effects on diagnosed anxiety and mood disorders than being physically or sexually abused or neglected by parents. The service use of mental health services has been found to be highly increased across adulthood in those who were bullied. Victimised children reach also lower educational qualifications, were poorer in financial management and earned less than their peers even at age 50. Victims also report to have more trouble with making or keeping friends in adulthood and were less likely to live with a partner and have social support. In contrast, bullies had no increased risk for any mental or general health problems, were healthier than their peers, emotionally and physically.

### Conclusions:

Being bullied has highly adverse health effects and service use implications. Sadly, many bullied children suffer in silence for fear of reprisals or shame. Children will have spent much more time with their peers than their parents by the time they reach 18 years of age. It is thus surprising that childhood bullying is not at the forefront as a major public health concern. To prevent dropping out of school, violence against oneself (e.g. self-harm) and reduce mental and somatic health problems, it is imperative for health practitioners, families and schools to address bullying.



# **Keynote Lecture 6: Paul Hoff**

# 4113 - Conceptual transitions: What will happen to the concept of mental disorders in the 21st century?

Prof. Dr. Paul Hoff Psychiatrische Universitätsklinik Zürich

"What constitutes a disease?" This issue is as old as medicine. The respective debate in psychiatry centres around the definition of "mental disorder". In the last decades an impressive development of sophisticated research techniques, efficient therapeutical options and, more generally, an increased diversity of psychiatric conceptualization took place worldwide. This urgently calls for a thorough reflection on — and, if necessary, adaptation of — nosological concepts, not least in respect of the future identity of our field.

With reference to the recent literature the lecture will outline chances and limitations of the following lines of thought:

- Reification: Mental disorders as "things"
- Operationalization: Descriptive psychopathological criteria and diagnostic algorithms
- Idiography: Subjective (including interpersonal) experiences as predominant elements of psychopathology
- Denosologization: Research technology- and data-driven approaches (e.g. Research Domain Criteria [RDoC], machine learning)

21st-century psychiatry will have to acknowledge that a multi-perspective-approach is mandatory when it comes to mental disorders. There are, however, two caveats: First, multi-perspectivism carries the risk of splitting the field into unrelated domains that tend to drift apart and to undermine psychiatry's (already not too stable) identity as a distinct medical field. Second, it may unjustifiably suggest that overarching topics which cannot be addressed by one perspective only are of minor scientific relevance (e.g. mind-body-relationship, personal autonomy and responsibility). One option to tackle such pitfalls, advocated by seminal authors like Karl Jaspers, Arthur Kronfeld and Werner Janzarik, is to enhance the status of psychopathology, enabling it to encompass the first-person- as well as the second- and third-person-accounts. It could then serve as a sustainable link between various perspectives in psychiatry. Most notably it could bring philosophical issues as mentioned above closer to actual empirical research where they tend to be underestimated nowadays.

In summary, conceptual transitions in psychiatry have been and will be challenging tasks. But they are necessary and stimulating for the field, as long as they are situated within a framework that accommodates psychiatry's person-centredness and its roots in diverse scientific traditions.



# **Keynote Lecture 7: Johannes Hebebrand**

# 4112 - Pre- and postnatal Screening: Implications for Child and Adolescent Psychiatry.

Johannes Hebebrand University of Duisburg-Essen

In this selective review we provide an overview of the current pre- and postnatal screenings up to 18 years; wherever appropriate and possible, we will reference the findings of the United States Preventive Services Task Force. Whereas national differences in screening programs definitely exist, the overlap is substantial in Western European countries in particular for neonatal screening programs. Most of the screening procedures are related to the diagnosis of somatic disorders; among these both chromosomal and monogenic disorders figure prominently in prenatal and neonatal screening programs. Despite the substantial combined disease burden in childhood and adolescence, screening for (symptoms of) mental disorders is infrequently performed; suboptimal specificity and sensitivity of established screening instruments for mental symptoms entail questions as to feasibility. In addition, an effective treatment outcome needs to be documented in order to warrant initiation of screening for mental disorders. In essence, the benefits of such screening procedures should outweigh the risks. In adults, initially perceived benefits of screening programs have been subjected to scientific scrutiny with a special focus on the implications of positive screening findings; in some instances initial recommendations were retracted. Thus, there is a need to broaden the evidence basis related to medical screenings especially for children and adolescents. Potential future developments of pre- and postnatal screenings are illustrated including their societal impacts. The lack of an early detection of mental health problems is pointed out; at the same time we illustrate the requirements that should be fulfilled prior to initiation of screening programs for mental disorders. An interdisciplinary collaboration and research is required to accumulate evidence with regard to screenings and to consider health economic and ethical aspects.



# Keynote Lecture 8: Prof. Dr. Jörg Fegert

## 4114 - Care of traumatized children in youth welfare systems.

Prof. Dr. Joerg Fegert Universitätsklinikum Ulm

## Objective:

To give an overview on the prevalence of traumatic experiences and associated psychopathology in children and adolescents living in residential care. Methods: A general overview on the issue of institutionalized children as a high-risk group with multiple traumatic experiences is given. The presentation focusses on two original studies with children in residential care in Switzerland and Germany. A sample of 370 adolescents living in Swiss youth welfare institutions (11 to 18 years old, 66% male) answered the Essen Trauma Inventory and the Youth Self Report (YSR). Three subgroups of trauma types were created: 'no interpersonal trauma', 'single interpersonal trauma', and 'multiple interpersonal trauma' (experiences in at least two domains: sexual abuse, physical abuse, neglect). ANOVAS were conducted with the trauma-type subgroup as a factor and all subscales of YSR as dependent variables. In a second study, a sample of 322 adolescents living in German youth welfare institutions or residential schools (15 to 22 years old, 57% male) answered a questionnaire in regard to lifetime experiences of sexual assault and the YSR. A MANOVA was conducted to compare psychopathology of victims and non-victims.

### Results:

Of the 370 adolescents of study 1, 80% reported any traumatic event, 27% reported single interpersonal trauma, and 29% reported multiple interpersonal trauma. Adolescents with any interpersonal trauma (single or multiple) scored higher on YSR subscales 'somatic complaints', 'rule-breaking behavior', and 'aggressive behavior' compared to adolescents without any interpersonal trauma. Among the traumatized adolescents, those with multiple trauma reached higher values on YSR subscales 'somatic complaints', 'anxious-depressed', 'thought problems', 'rule-breaking behavior', and 'aggressive behavior' than those with single trauma. Of the 322 adolescents of study 2, 57% reported any sexual assault, and 25% reported penetration. Victims of any sexual assault scored significantly higher on YSR scales 'somatic complaints', 'anxious-depressed', and 'attention problems'.

## Conclusions:

Traumatic experiences are common in adolescents living in residential settings. Likewise, sexual assaults are frequently reported by the adolescents. Interpersonal trauma appears to substantially affect externalizing and internalizing problems, especially if the trauma occurred in two or more different domains. Experiences of sexual assaults appear to affect internalizing and attention problems in particular. Results indicate that the focus of educational and therapeutic work in youth welfare institutions should be placed on trauma. Trauma sensitive care in institutions is an important approach for the care giving teams in these institutions. Therefore, some results from a Swiss model project on trauma sensitive care will be presented. Perspectives of care leavers, transition and emerging adulthood in this high-risk population will be discussed.



# 2845 - Risk Factors of Complicated Grief among Children and Adolescents: A Meta-Analysis

Dr. Alexis Revet CHU de Toulouse, Hôpital La Grave

Key-words: Complicated Grief; Risk factors; Children; Adolescents; Meta-analysis

Objectives: After the loss of a loved one, approximately 7 to 10 % of individuals including children and adolescents experience complicated grief (CG), a distressing and impairing condition that includes persistent and intense grief-related symptoms. Risk factors for CG, including pre-loss, peri-loss and post-loss factors, have been proposed in children and adolescents. The present study aims to conduct a systematic literature review of risk factors for CG in children and adolescents aged 0-18. Methods: We conducted a literature review in order to identify studies examining risk factors associated with CG and increased CG symptom severity among bereaved children and/or adolescents aged under 18. Keywords used were "complicated grief", "traumatic grief", "pathological grief", "prolonged grief", "children" and "adolescents" and the search was conducted on the two major databases Google Scholar and PubMed between September and November 2016. Studies were included if they reported use of CG symptoms as outcome. The systematic review was completed with publications extracted from the reference lists of the identified papers. Results: A total of 517 articles were identified in the online search. After removing duplicates and completing a preliminary screen of titles and abstracts, 27 full-text articles were identified as eligible for further review. Among those, 18 were identified as eligible for the review and meta-analysis. Meta-analytic data analyses are currently underway using the Comprehensive Meta-Analysis software. Conclusion: This study is the first meta-analysis to evaluate risk factors for CG among children and adolescents. Finding from this study will inform the development of preventive and treatment strategies for CG during childhood and adolescence.

This research is conducted with the support of the Organisme commun des institutions de rente et de prévoyance (OCIRP) and the Ligue nationale contre le cancer.



# 3095 - The contribution of anxiety sensitivity to anxiety symptoms and emotional-behavioral difficulties in children from 8 to 12

Prof. Dr. Mandy Rossignol Université de Mons

## Objectives:

Anxiety sensitivity (AS) refers to the fear of anxiety-related sensations, based on the false belief that anxiety symptoms may have harmful consequences. AS has been postulated to mediate the development of anxiety disorders, however little is known about the relations between AS, temperamental trait anxiety, and anxiety symptoms, especially in children. The aim of the current investigation was to address this gap and to evaluate whether these factors can predict behavioral and emotional difficulties reported by parents.

### Methods:

A community-based sample of 200 children completed the Children Anxiety Sensitivity Index (CASI), the Revised Children's Anxiety and Depression Scale (RCADS) and the Spielberger State and Trait Anxiety Scale for Children (STAI-C) while their parents were assessed for social-demographical features and fulfilled the Child Behavior CheckList (CBCL). We conducted multiple regression analyses to explore the relationships between the different measures, and group analyses to compare children with low or high level of AS.

### Results:

Anxiety sensitivity, but not state or trait anxiety, was correlated to anxiety and depression complaints on the RCADS and to behavioral and emotional problems measured by the CBCL. More precisely, children with higher AS reported elevated levels of separation anxiety, social anxiety, generalized anxiety, panic symptoms, obsessive-compulsive symptoms and depressive symptoms on the RCADS. Moreover, their parents reported higher levels of anxiety-depression, somatic complaints, social concerns, though problems, and aggressive behavior. Interestingly, multiple regression analyses showed that AS was the best predictor of parental reports of internalizing and externalizing problems.

### Conclusion:

Our results suggest a positive relation between AS and behavioral and emotional difficulties. Indeed, children reporting high levels of AS are more prone to experience physical and cognitive symptoms of anxiety as well as dysphoric feelings. Moreover, the association between AS and anxious behaviors is not univocal since high levels of AS predicted internalizing but also externalizing difficulties. To summarize, anxiety sensitivity is associated to anxious feelings and emotional distress manifested through observable anxiety and somatic complaints but also self-destructive or aggressive behaviors that are less typical, but equally important to assess in future studies.



# 3314 - CHILD & ADOLESCENT ANXIETY AND DEPRESSION: A COMMUNITY AND CLINICAL SAMPLE IN KOSOVO

PhD Naim Fanaj Mental Health Center Prizren

### Introduction

Anxiety and depression is becoming an increasingly important public health issue. The child & adolescents' population seem is among affected seriously.

### **Objectives**

The objectives of the study was to investigate the level of anxiety and depression among child & adolescents in one community and one clinical sample in Kosovo and explore possible links between.

## Methodology

Participants were 318 child & adolescents randomly selected in school, aged between 10 to 20 years (M=14.15; SD=2.47) and 168 child & adolescents referred to Mental Health Unit for Children and Adolescents in Prizren, aged between 8 to 20 years (M=13.73; SD=2.60). The measures used included the Albanian versions of Depression Self-Rating Scale for Children and the The Revised Children's Manifest Anxiety Scale. All data has been analyzed by SPSS 21 and Excel 2007.

## Results

Results showed that clinical significant levels reported 13.9 % of participants in community sample vs. 25 % in clinical sample for anxiety and 31.1 % for depression in community sample vs. 35.1 % in clinical sample. Significant positive correlation is found between anxiety with age (r=.33, p<.00) and sex (r=.24, p<.00) and between depression with age (r=.37, p<.00) and sex (r=.19, p<.00) only in clinical sample. Significant positive correlation is found between anxiety with depression in community sample (r=.46, p<.00) and clinical sample (r=.69, p<.00). Mann-Whitney Test found significant differences in anxiety (Z=-3.103, p<.00) and depression (Z=-2.482, p<.01) levels based on gender as females had significantly higher scores only in clinical sample. Mann-Whitney Test found significant differences in anxiety (Z=-4.095, p<.00) levels based on samples as clinical sample had significantly higher scores, but not for depression. Based on direct logistic regression anxiety and depression are mutually predictors in both samples; gender predicted depression only in clinical sample.

## Conclusions

Findings suggested that depression is very presented in both samples and is frequent than anxiety. Females and older age show significantly higher scores in anxiety and depression; but only gender show predictive power. It is important to investigate these relationships in future research aimed identification/interventions programs.



3131 - Offspring of bipolar patients: observations from adolescence through adulthood. Psychopathology development and dynamic changes in the inflammatory response system.

Gijsje Snijders UMC Utrecht

## **Objectives**

Adolescence is characterized by neuro-immune-endocrine changes, which induce neuroplasticity and ultimately behavior. In this important phase, the adolescent brain becomes highly plastic, but is also vulnerable. Seemingly small imbalances may have big consequences. The aim of the present study was to elucidate whether imbalances in immune- networks were present and could be related to developmental stage, and psychopathology during the prodromal stage of mood disorders in bipolar offspring (children of a bipolar parent), since microglia, peri-vascular macrophages, T cells and cytokines are involved in brain development.

### Methods

Participants of the Dutch Bipolar Offspring Study (n=140) were assessed by face-to-face interview during adolescence, young adulthood and adulthood by using the K-SADS-PL/SCID-I and self-report questionnaires. Blood samples were collected from all participants and from age and gender matched controls. Determined were various immune parameters such as inflammatory gene expression in monocytes, percentages of T-cell (subsets), cytokine levels of PTX-3, IL-1 $\beta$ , and CCL-2 and the neuro-immune growth and differentiation factors S100B, BDNF, IGFBP-2, sCD25, IL-7, SCF, and EGF, .

### Results

In bipolar offspring a slight, but significant reduced percentage of T cells was a continuous phenomenon. Within this moderate T cell deficiency an activated monocyte inflammatory, but reduced neurotrophic state was observed during adolescence. Later a monocyte anti-inflammatory state was specific for young adulthood compared to controls. Towards adulthood these monocyte aberrancies almost all disappeared. After 12 years of follow-up, 13% of bipolar offspring developed a bipolar disorder and 54% a lifetime mood disorder. However, immune abnormalities could not be directly related to psychopathology development

### Conclusion

Collectively our data show a dis-equilibrium within the (neuro-)immune system in in individuals at high familial risk to develop mood disorder. Dynamic changes were observed from puberty to adulthood. Future research should unravel the interaction models between these abnormally tuned molecular networks in the induction of a mood disorder. The role of environmental factors (i.e. life events, infections, stress)and other factors involved in abnormal brain development should also be taken into account is such models.



# 3145 - Internalizing and externalizing problems in Austrian adolescents: A large population screening including a school and non-school sample

Dr. Julia Philipp Medical University of Vienna

Objectives: Profound epidemiological data on mental health problems among Austrian adolescents were not available up to now. The aim of the Mental Health in Austrian Teenagers (MHAT) study was to obtain the prevalence of mental health problems and potential risk factors for adolescents.

Methods: Adolescents aged 10 to 18 years were recruited from multiple settings - schools (N = 3615), course providers for early school leavers (N = 43) and psychiatric clinics (N = 133) - in order to enhance the representativity of the sample. Internalizing and externalizing problems were obtained using the Youth Self-Report.

Results: Regarding the school sample, 17.8% showed clinically relevant internalizing problems whereas the prevalence was higher in the sample of early school leavers (45.9%) and in the clinical sample (71.2%). Clinically relevant externalizing problems were observed in 7.4% of the school sample, in 13.5% of early school leavers and in 27.4% of the clinical sample. Whereas girls showed slightly higher internalizing problem scores than boys, externalizing problems were almost identical between boys and girls but increased significantly by age. Low socioeconomic status and adolescents from single parent families were at risk for behavioral problems (Odds-Ratios between 1.5 and 1.7). Chronic somatic illnesses and psychiatric disorders in the family (parents or siblings) increased the risk for internalizing and externalizing problems significantly (Odds-Ratios between 2.4 and 4.4). Adolescents who perceive their relationships to peers and parents as bad had also an increased risk for mental health problems.

Conclusion: The results reveal that prevention efforts need to be intensified in the field of mental health especially for disadvantaged adolescents. Prevalence figures that are based on school samples only may underestimate the degree of mental health problems in the population of adolescents. Future epidemiological studies should therefore make special effort to include populations that are hard to reach like early school leavers, unemployed adolescents, homeless adolescents and chronically ill patients.



## 3270 - Brain structure variations and transition to depression in Adolescents

Dr. Marie-Laure Paillère Martinot APHP, CHU Cochin

Objectives: Adolescence is a period of transition related to structural brain circuit remodelling, involving myelination as one mechanism. The adolescent affective phenomenology might include major depression episodes or subthreshold pictures, subthreshold depression in adolescence being a risk factor for Major Depressive Disorder in late adolescence or adulthood. We aimed to identify the changes in brain morphometry and white matter microstructure in emotion regions associated with affective symptoms in adolescents, and their relation to depression outcomes.

Methods: In a first study, the participants were extracted from the European Imagen database of community 14-year-old adolescents followed up at age 16. Ninety-six adolescents with subthreshold depression were compared to matched controls. In a second study, 21 adolescents with a Major Depressive Episode diagnosis were compared to matched controls and followed up a year later. All participants were investigated using using 3T T1-Magnetic Resonance Imaging and Diffusion Tensor imaging (DTI). All had completed a diagnostic computerized interview that allows for symptom assessment. Voxel-wise comparisons were performed using statistical parametric mapping (SPM8) for structural MRI, and using tract-based spatial statistics (TBSS) for DTI parameters.

Results: In adolescents with subthreshold depression, grey matter volumes of the medial prefrontal cortex and caudates were smaller than in controls, and lower fractional anisotropy (FA) was found in several white matter tracts, mainly the genu of the corpus callosum and the cingulum. In adolescents with major depression, smaller grey matter volumes were observed in the hippocampus and precuneus regions, and FA decreases were observed in the genu of the corpus callosum and in the uncinate fasciculus. In adolescents with subthreshold depression, smaller medial-prefrontal grey matter volume and lower FA in the corpus callosum at age 14 partly predicted depression outcome at age 16.

Conclusion: Adolescents with subthreshold or full depression exhibited impaired structural connectivity that might indicate altered white matter tract maturation and contribute to the transition to affective disorders.



## 2581 - Risk Factors of School Violence in Rural Region in Egypt

Prof. Dr. Maha Emadeldin Beni Suef University

Objectives: School violence is a growing problem in Egypt that has received widespread attention. This study aimed to investigate the size and risk factors of aggression among adolescents attending schools in rural district at Giza/Egypt. Methods: Participants were 400 students randomly selected from preparatory and secondary schools in rural village at Giza/Egypt. They completed 1) Designed questionnaire to collect demographic data, personal risk factors of aggression, and questions about exposure to familial and community violence derived from Child Exposure to Domestic Violence (CEDV) Scale and 2) Aggression scale: it includes questions about committing different types of aggressive behaviors at school. Results: According to Aggression Scale, 57 % of participants showed mild aggression and 10 % showed moderate & severe aggression. Watching violent movies (p= 0.001), possession of sharp objects (p=0.02), having violent friend (p=0.001), smoking cigarettes (p=0.003), knowing friends using drugs (p=0.001), and experimental use of substances (p=0.001) were more reported in students with moderate and severe school aggression. Students who witnessed family violence (fighting, use of insulting words, property destruction, threat by and using weapons) were more likely to bully others in school (p=0.000). Also exposure to maltreatment at home either calling by insulting words (p=0.000) or bodily harm (p=0.002) were related to aggressive behavior at school. Exposure to insulting words and bodily harm in street situations were more reported in students with moderate and severe school aggression compared to students with no or mild aggression (p=0.001). Conclusions: This study pointed to the widespread of aggression among adolescents attending school in rural areas of Egypt. Adolescents exposed to familial and community violence and maltreatment were at greater risk to be aggressive at school. Programs targeting school aggression should address the problem of domestic violence. Title:



# 2835 - psychosocial predictors of deviant behaviour in adolescents

Shahnila Tariq university of the punjab

## Objective:

The present research aims to investigate the Psychosocial predictors of deviant behaviour in adolescents. It was hypothesized that emotional maturity will mediate between the psychosocial predictors and deviant behaviour in adolescents.

### Method:

Correlational research design was used to collect the data from 612 boys, age range 13 to 19 years (M=16.17, SD=1.40) from different government schools and colleges of Lahore. Big Five Inventory (BFI-10) by Rammstedt and John (2007) and Emotional Maturity Scale (EMS) by Singh and Bharagava (1999), Psychosocial Factors of Deviant Behaviour Scale (Mushtaq & Kausar, 2014) and Deviat behaviour scale (Mushtaq & Kausar, 2014) were used as assessment measures. Data was analyzed by using correlation and Structural Equation Modeling.

### Results:

Results revealed that considering the personality as covariate, emotional maturity mediated between psychosocial factors and deviant behaviour in adolescents. The sub scales of both the assessment measures were also further analyzed.

Concluding Statement: The findings of the study show that work should be done during the development of personality and emotional maturity by controlling some of the psychosocial factors, with the children in their early ages in order to avoid their deviant behaviour in adolescence. If it will not be controlled than there are more chances of developing anti social personality and criminal behaviour in the adulthood. The findings of this research, if properly applied, can reduce the deviance in adolescents in Pakistani society or in broader terms in the world.



2919 - Pre- and perinatal complications in relation to oppositional-defiant and conduct disorder symptoms in the Avon Longitudinal Study of Parents and Children.

Hyun Ruisch University Medical Center Groningen

Objective: We aimed to conduct a comprehensive study on a variety of pre- and perinatal complications in relation to oppositional-defiant disorder (ODD) and conduct disorder (CD) symptomatology in a large, prospective, general population cohort (Avon Longitudinal Study of Parents and Children).

Methods: Our outcome of interest consisted of ODD/CD-symptom scores, rated by the mother and teacher at the age of 7 years and 9 months. Due to skewed distributions of outcome data, analyses were conducted using zero-inflated negative binomial models. Pre- and perinatal predictors were selected using a stepwise process involving single and multivariable models, and analyses were adjusted for offspring sex, IQ, maternal age, SES, and single parent status. Sample sizes for the final analyses were 4,888 for maternal and 2,808 for teacher ratings of ODD/CD-symptoms.

Results: Associations were observed between offspring ODD/CD-symptoms and maternal smoking (maternal and teacher ratings incidence rate ratio (IRR) = 1.28~(1.12-1.45) and 1.48~(1.18-1.87) respectively), alcohol use (maternal ratings IRR = 1.16~(1.05-1.28)), paracetamol use (teacher ratings IRR = 1.36~(1.11-1.66)), internalizing problems (maternal and teacher ratings IRR = 1.21~(1.15-1.28) and 1.15~(1.02-1.28) respectively), and life events stress (maternal ratings IRR = 1.15~(1.09-1.21)) during pregnancy. No associations were observed between ODD/CD-symptoms and perinatal adversities such as low birth weight or obstetric complications.

Conclusion: We added further evidence for a number of previously implicated risk factors, and are the first study to report paracetamol use during pregnancy as a predictor for offspring ODD/CD-symptoms. Shared genetic and social factors between mother and child, as well as co-existent psychopathology may, however, confound these associations. Future studies are therefore needed to advance our understanding of these effects, for example by using genetically sensitive study designs and controlling for comorbid disruptive behavior.



the continuation of misconduct behaviour into adulthood.

3056 - Conduct problems in children aged 8-12: A descriptive analysis of a children cohort in a specialized Portuguese centre.

Dr. Isabel Taveira-Gomes Centro Hospitalar do Porto

Violent and predatory crimes are often committed by adults whose criminal careers can be traced back to conduct problems in their childhood [1]. Research shows that approximately 40% of children with conduct problems went on to have significantly impaired criminal adult lives and 90% of recidivist criminals had had conduct problems during their childhood [2]. Thus, clinical monitoring of children with conduct problems as well as the understanding of the psychopathology behind such behaviour is highly important.

This study aims to: i) characterize a cohort of children with ages between 8-12 who have been presented to our specialized centre due to conduct problems; ii) uncover potential determinants of such misbehaviour.

We included clinical records from children aged 8-12 that presented to the Department of Child and Adolescent Psychiatry and Mental Health of Centro Hospitalar do Porto at least once due to conduct problems (n=40). We abstracted the clinical records for age, gender, education, socio demographic information, family structure, DSM V codes, medication history, attending physician and presence of organic disease, among others. We conducted an exploratory data analysis using association rule mining to systematically search for meaningful associations. In addition, we performed latent class analysis to uncover potential clustering structure within the analysed cohort. We used the Bayesian Information Criterion to assess model fit. At the time of this writing the study is being conducted. We will present the results of the association rules and latent classes, and discuss the interpretation of our findings in the light of the current scientific evidence and increasing therapeutic challenges that the physician faces in encounters with children with conduct problems. The early identification and management of these cases through models developed from such evidence may play a crucial role in avoiding

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3184 - From Zero To Hero: How Do Men View And Talk About Their Bodies? An exploratory piece of young men's lived experience with body image and self-esteem issues.

Dr. Farrah-Hani Imran University College Dublin

### Title:

From Zero To Hero: How Do Men View And Talk About Their Bodies? An exploratory analysis of young men's lived experience with body image and self-esteem issues. (223 characters, 34 words)

### Authors:

Farrah-Hani Imran, Lesley O'Hara, Fiona McNicholas.

### Abstract:

In 2008, the National Men's Health Policy of Ireland called for 'a stronger evidence base to support the on-going development of policy and services for men' and the need to develop measures 'across different aspects of men's health that can be monitored to evaluate changes in men's health status over time'. Body image dissatisfaction has been linked as a possible contributing factor to negative health behaviors such as body image drug use; however, research is limited with males. Self-esteem is a major factor in determining behavioural patterns with regards to eating habits, exercise and self-perception. In Ireland, there is a growing trend of excessive exercise and use of body-building supplements amongst teenage boys.

### **OBJECTIVE:**

With this in mind, our primary objective was to assess and determine the levels of self-esteem and body image among Irish males from a diverse background, and explore the interaction between these factors and men's knowledge, attitudes and practices (KAP) in terms of eating and exercise behaviours.

Our secondary objectives were two-fold. First, to explore the relationship between harmful behavioural patterns and self-esteem, such as doping to achieve success, adverse behaviour due to lack of stress management. Second, to identify and establish background factors as triggers of low self-esteem and subsequent use of PEAs (Performance Enhancing Agents).

## **METHODS:**

We performed an exploratory study by conducting 3 focus groups of 8 people each where we analysed how men viewed and talked about their bodies, describing the lengths they would go to to achieve their perceived ideal physique.

### **RESULTS:**

This presentation reports on our findings following a qualitative analysis of the interview data. CONCLUSION:

Our findings depict the pressure to conform, or to succeed. We highlight the risk factors identified as triggers to disruption of mental health, the mindset acquired and actions taken to achieve the perceived ideal body image.

(1977 characters, including spaces) (302 words)



# 2333 - Psychodynamic psychoanalytical based therapy — from infancy to adolescence

PhD Daniel Bindernagel Kinder- und Jugendpsych. Dienste St. Gallen, Switzerland

### **Objectives**

Treatment is shortterm, interactional, based on psychodynamic background and assessed following DC 0-3R. In the period between 11/2011 to 6/2015 we assessed all patients at the beginning, the end and 6 month post treatment by parental reports and clinical judgement through the therapist.

Aims of the observational study are to evaluate the outcome and to improve diagnostic assessment and therapeutic intervention.

#### Methods

Sample: 214 treated, 121 met including criteria (more than 1 consultation, no language barrier, parental agreement). 50 returns: 26 at t0, t1 and t2. 24 at t0 and t1. 60 no returns. 11 still in treatment.

t0 parents: questionnaire problems and expectations, BITSEA, KPCS, EPDS. t0 psychotherapist: PIRGAS, M-ADBB and Clinical judgement. t1 and t2 parents: questionnaire problems and treatment satisfaction, BITSEA, KPCS, EPDS. t1 psychotherapist: DC: 0-3R, M-ADBB and clinical judgement.

Fathers participation 73%, average of consultations: 3.8. Clinical disorders DC: 0-3R: 35% no, 23% adjustment, 16% regulation, 10% sleep behaviour, 16% other.

### Results

Group comparisons between t0 and t1 show highly significant improvement in parental reports on children's behaviour (BITSEA) and parental well-being (EPDS). These changes last over time between t1 und t2. Therapists' assessment of the parentchildrelationship (PIRGAS) and infant's symptoms between t0 and t1 show highly significant improvement. Results over time show, that the feeling of parents burden is significantly lower when the intervention time is longer. The childs symptoms and the quality of the mother-child-relationship are significantly correlated. The quality of the father-child-relationship is correlated with the mother-child-relationship.

### Conclusion

Results show significant improvement in parental reports on childrens behaviour and parental well-being and in reports by therapists in parentchildrelationship and infants symptoms. The corespondence between the perception of the parents and the therapists is high. Longer treatments seem to be more effective, in particular for the well-being of the parents. Poor return may be associated with parental motivation to answer questionaires, psychodynamic issues and motivation of clinicians to go for out-comemeasurement.



# 2392 - Evaluating parent-infant-psychotherapy in an outpatient clinic: two case reports

Pamela Walker KJPD St. Gallen

Title: Evaluating parent-infant-psychotherapy in an outpatient clinic: Challenges, obstacles and possible benefits. Two case reports about the influence of psychodynamics on measurement. (Connected to oral presentation ID 2333 of Dr. Bindernagel, makes only sense in a combined presentation).

Introduction: We compare the handling of the outcome measurement in the psychoanalytic parent-child-psychotherapy of two 3year-old-boys and their parents in relation to the course of treatment, emerging psychodynamics and related parameters such as parental ability of separation and triangulation.

Method: Comparison of a fully measured short-term-psychotherapy and an incompletely measured long-term-treatment. We compare written transcripts of the sessions with the same psychotherapist and the questionnaires of the outcome as itemized in oral presentation ID 2333. Our focus is on the way measurement is put into effect in relation to psychodynamics and the course of treatment.

Results: In the short case, there is a good ability of separation and triangulation in the parents, the therapist is put in a helpful third position and the treatment is successful. It has a clear beginning and a clear end what makes the time of measurement easy to define. The long-term treatment however shows a depressed parental couple, often insecure in decisions and having difficulties with separating from each other, from the child or from the therapist. There is a quite clear beginning, but no clear end of the treatment what makes outcome measurement difficult.

Conclusion: Psychodynamics influence the quality of outcome measurement. In this example, the main problem is the definition of the end of treatment. If there is no clear end, the time for measurement is difficult to find. And if measurement means the end of treatment it could be avoided out of psychodynamic reasons.



# 2984 - New approach for Interactive Group Psychotherapy for Siblings

Sirkku Saini-Sjoman LunaNueva

Individual development is relational, since it happens in relation to social interaction. Harmful psychological, emotional and interaction issues hinder the positive development and the everyday life of a child. These issues usually manifest themselves in family, school and peer interaction.

The commonly used approach for treating children in need of psychotherapy is individual sessions, tailored for the child. In our experience this approach has proven less effective than interactive group psychotherapy. In cases where a child manifests psychological, stress or/ and trauma symptoms, the issues causing these symptoms are often relational and affect his or her entire family. As such we have found that the most efficient and emotionally cost-effective way to help these children is to treat them and their siblings in group psychotherapy. In our group psychotherapy we involve the entire family. The setting structure is stable and two psychotherapists are attending each session. Sibling groups are active, physically intensive and deeply emotional.

Referring to our clinical work and the results we have gotten from our group psychotherapy sessions, we have conducted our research by interviewing parents whose children have been attending either individual psychotherapy session, group psychotherapy our both. Additionally we have interviewed a number of clinical psychiatrists and psychologists.

Based on our clinical experience and interview analysis, group psychotherapy is more effective than individual psychotherapy with children and adolescents, since the trauma causing the child's symptoms usually affects the entire family.

Keywords: siblings, group psychotherapy, trauma, family



# 3274 - A Randomized Controlled Trial of Mindfulness-Based Cognitive Therapy for Youth Living with Inflammatory Bowel Disease and Depression

Dr. Tatjana Ewais Mater Health

## Background

Individuals with IBD have triple the rate of mental disorders than that of general population and youth with IBD have higher rates of depression than youth with any other chronic illness [1]. Mindfulness-based Cognitive Therapy (MBCT) is an evidence-based group program for treatment of depression which also holds promise in reducing systemic inflammation, normalizing gut microbiome and modulating brain neuronal connectivity [2].

## Objectives

The aim of this study is to conduct a randomised control trial (RCT) exploring benefits of MBCT for youth with IBD and depression. Primary outcome measure will be depression scores in Depression, Anxiety and Stress Scale (DASS). Secondary outcome measures will explore the impact of the mindfulness intervention on IBD inflammatory markers, gut microbiome and functional neuronal connectivity.

### Methods

IBD patients aged 16-25 will be recruited via the IBD outpatient services at Mater Young Adult Health Centre. After completing the DASS, participants will be randomly allocated to either treatment as usual or an intervention group who will receive the MBCT.

### **Findings**

The study has secured funding and is currently in recruitment stage with preliminary results expected in May 2017.

### Conclusions

This will be the first RCT exploring beneficial impact of MBCT on depression concurrent with measuring its impact on inflammation underlying both depression and IBD, gut microbiome and functional neuroimaging changes. This study therefore holds promise to further elucidate the nature of interactions between depression, inflammation, microbiome and neuroconnectivity and support novel therapeutic interventions targeting them.

### References

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# 4365 - Economic Rationality in Youth with Emerging Mood Disorders

Angé Weinrabe

Youth Mental Health Research, Brain and Mind Centre, Faculty of Medicine, The University of Sydney, NSW, 2000 Australia

Anxious and depressed people are often characterized as irrational in common language. Underlying and contributing to "irrational" behaviour are biological and psychological substrates, such as motivation and emotion. However, in mental health care a clear definition of what it constitutes to be irrational is missing. In economics, on the contrary, irrationality in behavior is precisely defined as making intransitive choices or, violating the Generalized Axiom of Revealed Preference (GARP). Previous research has shown that young children, older adults and people with ventromedial prefrontal cortex damage show intransitivity in their choices. In this study, we extend these results by investigating whether people with severe mood disorders make economically rational choices. At two time points, separated by eight weeks, we measured subjects' rationality using a widely used economic paradigm and we quantified the severity of subject's mood via widely used psychological self-report scales for youth disorders (Kessler Psychological Distress K10), Quick Inventory of Depressive Symptomology QIDS-A17 and SPHERE-12). We found that help-seekers, rated as severely anxious and depressed, are more likely than those who scored lower on these scales, to make choices that violate GARP. Importantly, we found that help seekers became less irrational at round two, but that little within subject variation in mood occurred.

Decision-making | rationality | depression | anxiety | affect | emotion



# 2438 - fear from freedom, tendency to suicide

PhD Maryam mohammadi Ministry of education

The growth of social activities for women in Iran has had a two-sided outcome for women. The worst, the women have encountered the phenomenon of prison which is a great problem in traditional and Islamic societies. The change of role expectations after the release from prison has imposed many restrictions on women so that there is not any vivid future for them. Lack of enough education and skill has deprived the prisoner women from retaining their pre-prison situation. The high number of suicide among prisoner women shows that subculture of encountering with prisoned women in Islamic societies is based on sin approach in that the women are sinners who will be sent to hell in the other world and they must see the punishment of their sin to be ready for the extreme heat. Disinterestedness in the interaction with other people and loving isolation are two characteristics of style life for these women. The efforts of authorities to return these women to normal life ,unfortunately, have failed to work. This paper investigates the reasons and roots of exclusion for prisoner women in Iran and Islamic societies



## 2826 - Decisional support for young people who self-harm: feasibility trial

PhD Sarah Rowe King's College London

### Authors:

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- 6School of Health Sciences, Institute of Mental Health, University of Nottingham 7 Centre for Academic Mental Health, School of Social & Community Medicine, University of Bristol

### Introduction:

Decision-aids (DA) have been shown to increase knowledge, encourage more active participation in decision-making and lower levels of decisional conflict (O'Connor, Rostom et al, 1999). We have developed a novel web-based DA designed to help young people get support for their self-harm. A feasibility trial was conducted to test the acceptability and gather descriptive data on outcome measures.

### Methods:

Young people aged 12-18 years were recruited from a secondary school in London, England and screened for self-harm. Those that reported self-harming behaviour in the past year were randomised to either 1) the control condition whereby they received general information about mood and feelings or 2) the experimental condition where they completed the DA and received help-seeking options based on their personal responses. Participants were followed-up at 4 weeks. Qualitative interviews were conducted after follow-up with a subset of participants, to evaluate and explore the young person's experience of the study and the (potential) effects of the DA.

### Results:

Parental consent was a major barrier to recruitment in this study. Twenty-three young people aged 12-18 years were randomised to receiving the DA (n=10) or the control group (n=13). The DA was found to be acceptable to participants and they would recommend it to other young people who were self-harming. There were no differences in outcome measures between the

groups at 4-week follow-up. Qualitative interviews suggest that the DA increased young people's awareness of different sources of support, encouraged self-reflection and reduced shame and stigma associated with disclosing.

### Conclusions:

Issues around parental consent made the population level screening process unfeasible in this study. Changing the consent process may be necessary in order to assess the potential effectiveness of the DA in a future clinical trial, and (more broadly) to engage young people that self-harm with research. The balance of protection arrangements for vulnerable populations and the ability to conduct research of a sensitive nature within an adolescent population, requires ongoing debate.

### References:

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# **2486 - Turning Point: Transitional stage of Adolescent Mothers Returning to School**

Dr. BENYAPA THITIMAPONG faculty of nursing

Aims: To explore the turning point of first-time Thai adolescent mothers who returned to school during childrearing.

Methods: A qualitative study was undertaken to investigate the turning point in transitional stage of adolescent mothers who returned to school while engaged in childrearing. In-depth interviews were carried out with the purposive selected. The participants were 20 adolescent mothers who were a mother and a student simultaneously after giving birth with a healthy baby no more than 2 years, and had undergone the experience of unplanned pregnancies during studies in Southern Thailand. The data were analyzed using content analysis method. Findings: The study showed that the adolescent mothers contemplated about their schooling either discontinuing school or continuing school after getting pregnant. However, all of them came back to non-formal educational school after childbirth. The turning points to remain in or to return to school were fulfilling personal life-goals and fulfilling parents' wishes. Conclusions: The findings of this study can be used as an evidence for development of the policy to promote in all educational system to enable pregnant adolescents and adolescent mothers to continue their education to get their life-long success in the future.

Keywords: Adolescent mothers, turning point, school



# 2909 - SELF-ESTEEM AND ITS IMPACT ON SCHOOL SUCCESS OF ADOLESCENTS IN KOSOVO

### SEVIM MUSTAFA

## Background

Literature show the negative impact of low self-esteem on academic success of adolescents.

## **Objectives**

Estimating of the level and correlations of self-esteem with academic success of adolescents.

## Methodology

Its a quantitative cross-sectional study. Sample consisted from 1162 students of primary and secondary schools (Prizren, Prishtina, Mitrovica, Malisheva), aged 11-20 yrs (Mage=16.37, SD=1.58), male 47.4 % and female 52.6 %. Participants filled out Rosenberg Self-Esteem Scale (Rosenberg, 1965). Data processing was done with SPSS 21.0 and Microsoft Excel 2013.

### Results

Based on self-reported success: with grade 1 (1.3 %), grade 2 (7.9 %), grade 3 (24.0 %), grade 4 (24.4 %), grade 5 (32.5 %) and no-reported (10 %). Based on self-esteem with low self-esteem was (59.8 %), with normal self-esteem was (40.2 %). No significant correlation is found between academic success and level of self-esteem. Gender (females +) is significantly positive correlated with academic success (p=.00). With Mann-Whitney test no significant difference is found in level of academic success between cases with low self-esteem and cases with normal self-esteem.

### Conclusions

Self-esteem didn't show to impact academic success. Other focused studies in this field are needed to shed more light on topic. High percent of adolescents with low self-esteem is indicative for further researches of this psychological construct.



# 2889 - Have Eritrean Refugees reached the limits of resilience between resignation and integration?

Dr. Fana Asefaw Clienia Littenheid AG

### Introduction

Eritreans belong to one of the largest group of refugees in Switzerland coming from countries outside of Europe. Despite of life threatening circumstances and negative experiences during their flight Eritreans often show good factors of resilience.

Being confronted with even more post-migration challenges in the communities of their reception, they are often unable to activate their resources.

### Methods

Currently, there are data of 65 outpatient Eritreans available, all between the age of 14 and 21 years (YSR, DISYPS, UCLA). The data were collected during the transcultural consultations. The refugees concerned are unaccompanied youths or young adults.

### Results

So far clinical evaluation of the situation of Eritrean refugees is missing. Only very few patients show criteria of PTSD, though we find high levels of post-migration stress disorder correlating with the severity of PTSD and other symptoms.



## 2899 - Secondary traumatic stress and burnout among caregivers of refugees

Dr. Célia Steinlin Zurich University of Applied Sciences

Objectives: As a reaction to the increasing number of refugees arriving in Switzerland, additional refugee centers have been created and several institutions have set up additional services to assist the refugees. While a lot of attention has been directed towards the wellbeing of the refugees, the wellbeing of the caregivers has largely been neglected. We know from previous studies on child and youth welfare workers that they show many symptoms of secondary traumatic stress and burnout as a result of challenging interactions with the children and adolescents and of being confronted with their burdened life-histories. The first aim of the present study was to investigate the incidence of secondary traumatic stress and burnout symptoms among caregivers of refugees in Switzerland.

The study on child welfare workers also showed that stress symptoms were negatively associated with a higher sense of coherence and more self-caring behavior. Also, communication and support within the team as well as support from superiors were related to fewer stress symptoms. A second aim of the present study was therefore to investigate these associations among caregivers of refugees and to derive recommendations for promoting and maintaining the wellbeing of the caregivers.

Methods: A sample of caregivers of refugees in the larger area of Zurich is assessed based on questionnaires. The questionnaires address symptoms of secondary traumatic stress and burnout as well as sense of coherence, self-care and work satisfaction. Also, the availability of supervision and vocational training is assessed.

Results: The incidence of secondary traumatic stress and burnout symptoms in caregivers of refugees will be reported. Associations with sense of coherence, self-care and work satisfaction as well as supervision and vocational training will be presented. The results will be compared to the results of our previous study on child and youth welfare workers.

Conclusions: Specific recommendations for promoting and maintaining the wellbeing of caregivers of refugees will be derived from the results.



# **S02-15: Oral session on "22q11"**

# 2594 - Visual processing of complex social scenes in 22q11DS: relevance for social impairments?

MPH Lydia Dubourg Developmental imaging and psychopathology laboratory, Geneva, Switzerland

The 22q11.2 deletion syndrome (22q11DS) is characterized by high rates of attenuated psychotic symptoms, especially negative symptoms. Despite the deleterious impact of those symptoms on patients' quality of life, little is known on the factors associated with their emergence in this population. In 22q11DS, previous studies investigated social cognition using eyetracking methods in order to advance understanding of negative symptoms. Results demonstrated an abnormal visual processing of socially relevant stimuli in this syndrome (Glaser et al., 2010). However, the processing of complex social scenes has never been explored. This might provide information about the way patients explore their social environment and help to better understand the differences underlying social impairments and negative symptoms.

A 102-second movie displaying a dyadic social interaction was presented to 106 22q11DS and 117 healthy controls. To measure the visual exploration in a longitudinal way, the sample will be divided in three age groups: between 6 and 12 years; between 12 and 18 years and participants > 19 years. Controls were used to create dynamic maps of typical exploration. These normative maps were obtained using a kernel density algorithm (Botev et al., 2010). Gaze patterns from each individual with 22q11DS were compared to the normative maps, allowing an unbiased quantifiable measure of social understanding.

Patients with 22q11DS showed a strongly significant deviance from the normative maps (F (1,164)=39.42, p<0.001), suggesting atypical processing and decreased interest for socially relevant stimuli. In patients with 22q11DS from the younger age group, there was a significant association between deviance values and age (r=0.332, p=0.028), indicating that adolescents with 22q11DS were generally less efficient at detecting socially-relevant information than their younger peers. In the older age group, deviance values were associated with the severity of negative symptoms (r=0.322, p=0.014) but were unrelated to age, intellectual functioning or positive symptoms.

This study reveals abnormal visual exploration patterns during the processing of complex social scenes in 22q11DS, which are related to the presence of negative symptoms. Longitudinal explorations using this technique will provide a tool for quantifying social impairments and will determine whether atypical gaze patterns are predictive for the onset of significant negative symptoms and/or psychosis.



# **S02-15: Oral session on "22q11"**

# 2827 - Attention Deficit Hyperactivity Disorder (ADHD) symptoms and psychosis in 22q11.2 Deletion syndrome (22q11.2DS)(IBBC)

Dr. Maria Niarchou

Objective: 22q11.2 Deletion Syndrome (22q11.2DS) is associated with increased risk for schizophrenia in adulthood while ADHD is the most prevalent diagnosis in childhood. ADHD inattention symptoms are pronounced in 22q11.2DS and given that attentional impairment is a core feature of schizophrenia, we examined whether ADHD inattention symptoms are associated with psychosis in 22q11.2DS. To further investigate whether these symptoms are associated with genetic liability to psychosis in 22q11.2DS, we also directly compared the prevalence of ADHD symptoms with other non-deleted (ND) groups with increased risk for psychosis. Methods: 137 individuals with 22q11.2DS (mean age: 14.0), 84 ND individuals with psychosis-spectrum (mean age: 16.9) and 31 ND individuals with family history of psychosis (mean age: 17.0) were included in the study. Psychopathology was assessed using research diagnostic assessments.

Results: ADHD symptoms, including inattention and hyperactivity, were associated with psychosis spectrum (p=0.004 and p=0.01 respectively), while ADHD inattention symptoms were also associated with positive (p=0.004), negative (p=0.03), disorganized/general symptoms (p=0.01) and ADHD hyperactivity symptoms were associated with disorganized/general symptoms (p=0.04). The prevalence of ADHD inattention symptoms was higher in 22q11.2DS and psychosis spectrum in relation to ND individuals with psychosis spectrum (p<0.001), even when adjusting for cognitive impairment. The pattern was similar when comparing individuals with 22q11.2DS and ND individuals with family history of psychosis.

Conclusions: This is the first study to examine the associations between ADHD and psychosis in 22q11.2DS. Our findings support a potentially important role of ADHD inattention symptoms in the development of psychosis in 22q11.2DS and potentially beyond. Further results using data from the IBBC consortium will be presented.



# **S02-15: Oral session on "22q11"**

# 3016 - Memory in 22q11.2 deletion syndrome: investigating accelerated long term forgetting

Johanna Maeder Office Médico-Pédagogique Genève

Objectives: Long-term memory (as opposed to short-term) is the ability to store and recall information for a long period and is characterized by structural and functional changes of the neural networks of the brain. A phenomenon that often goes undetected is whether the forgetting pace of the information is accelerated when compared to a control population. Indeed, most standardized memory assessments measure delays up to 30-40 minutes and therefore are not very representative of daily life performance (e.g. academic learning). 22q11.2 deletion syndrome (22q11.2DS) is a genetic disorder associated with a specific cognitive profile and high risk for schizophrenia. From previous research and patient's family reports in daily life, long-term memory processes seem to be altered in this population. More specifically a superiority of verbal memory processes over visual memory processes have been reported in several papers. To our knowledge, no previous research has investigated accelerated long term forgetting in this population differentiating between verbal and visual processes.

Methods: we investigated verbal and visual long-term memory using a modified version of Rey's 15 words/15 signs. Eighty-three participants (44 with 22q11.2DS) aged between 8 and 24 years learned a series of words and signs and were asked to recall them freely after 4 different delays in time (thirty minutes, one day, one week and one month). Performance was compared between groups (22q11.2DS vs Controls) and modality (verbal vs. visual) at each time delay, controlling for age.

Results: Firstly, in the control group we found a positive correlation of performances with age at every time delay (p < 0.031), indicating that as individuals are older, they remember more information. Interestingly this advantage of age was not present in the 22q11.2DS group, at any time delay. Secondly, comparing the percentage of forgetting at each time delay showed that accelerated forgetting started earlier in the verbal task (after one day) than in the non-verbal task (after one week) in patients with 22q11.2DS.

Conclusion: There was no advantage of age on performance in the 22q11.2DS group. We showed an accelerated forgetting phenomenon in 22q11.2DS and different forgetting curves depending on modality.



### **S02-15: Oral session on "22q11"**

# 3172 - IBBC: Sensorimotor processing and pursuit eye movement: Is this putative intermediate phenotype for schizophrenia impaired in 22q11.2 Deletion Syndrome?

PhD Kathryn McCabe University of California, Davis

Introduction: 22q11.2 deletion syndrome (22q) is a complex genetically determined microdeletion syndrome with prevalence estimates of 1 in 2000-4000 live births. Common neuroanatomical features of 22q include alteration to multiple brain regions. Sensorimotor and visual cognitive processes reliant on connectivity between distributed brain regions may be affected in 22q. Visual information processing impairment represents a core feature of schizophrenia. 22q is one of the strongest genetic risk factors for developing schizophrenia. Studies in schizophrenia show impairments in sensorimotor systems involved in the initiation and early integration of visual feedback as well as impaired pursuit maintenance and similar impairment is seen in their first-degree relatives. The present study examined several aspects of oculomotor processing in 22q. We hypothesized that individuals with 22q would generally show difficulty initiating and maintaining pursuit commands relative to typically developing controls (TD).

Method: 22q (n=19, mean age 16.9 +/- 2.8 years, 7 males) and typically developing adolescents (TD) (n=20, mean age 16.7, +/- 3.8 years, 10 males) completed prosaccade and smooth pursuit eye movement (SPEM) tasks. Saccade latency and accuracy were recorded as indicators of performance in the prosaccade task and SPEM gain, saccade type and frequency were calculated as indicators of SPEM performance.

Results: The groups showed comparable prosaccade accuracy (22q = 94% vs TD = 96%). The 22q group showed lower mean latency compared to the TD group (p= 0.009) remaining significant when only accurate trials were examined (p< 0.001,). Group comparisons indicated gain maintenance differences (p= 0.001) and 22q participants also showed increased frequency of all saccadic subtypes (p=0.02).

Conclusions: We report impaired pursuit maintenance among adolescents with 22q without psychosis compared to TD controls. These may indicate impaired integration of higher-order predictive processes, though further examination of sensorimotor components of pursuit eye movement is warranted. Reduced mean latency of saccadic responses may reflect reduced inhibition of saccadic eye movements.



## **S02-15: Oral session on "22q11"**

3216 - The first genetic syndrome specific norm chart for neurocognitive functioning: IQ norm charts for 22q11.2 deletion syndrome using data from a large worldwide consortium (IBBC)

Dr. Elemi Breetvelt Toronto General Hospital

Norm charts play an important role in daily clinical care. They can provide insight into the degree of deviation for individual trajectories. For several genetic syndromes normative trajectories for morphological aspects have been constructed. These syndrome-specific norm charts facilitate both clinical care and research.

Similar to morphological features, it is now becoming increasingly clear that certain genetic disorders can also manifest characteristic trajectories of cognitive development. However, to date there are no syndrome-specific charts for cognitive development. Using data of the largest study to date involving individuals with the 22q11.2 deletion syndrome (22q11DS), we created a norm chart for cognitive development. The chart showed a decline in IQ and this norm chart allowed the identification of an association between a decline in verbal IQ and the subsequent development of schizophrenia. Providing a comprehensive norm chart for IQ in 22q11DS in a larger dataset will enable validation of this finding, and will be important for both clinical care and research of this condition.

The aim of this study is to produce a cognitive development norm chart for 22q11DS between age 6 and 40 years, which can be used for both clinical and research purposes.

We made use of the IBBC database with 1871 participants with 22q11DS. We used all available IQ data points to construct norm charts (for FSIQ, VIQ and PIQ), after a comprehensive quality control procedure to ensure reliable and comparable IQ data across all international sites. We extended the age-range examined (ages 6 to 40 years). We compared several procedures (polynomial - and Linear Quantile Regression) used to construct IQ norm charts in order to identify the optimal method for the data available.

All norm chart methods showed a similar IQ decline as in the initial finding. The norm chart produced by polynomial regression provided the best fit with the data. The final norm chart performed well across the entire age-range.

This is the first time a norm chart has been constructed for neurocognitive functioning in a specific genetic syndrome. We validated our previous finding that IQ in 22q11DS shows a decline over development. This research has provided an IQ norm chart that can be applied both in clinical care and research. We conclude that a disorder-specific neurocognitive developmental norm chart is feasible, given the availability of a sufficient number of standardized IQ measures.



### **S02-15: Oral session on "22q11"**

### 3461 - Reward Learning and dopamine release in adults with 22q11DS.

PhD Esther van Duin Maastricht University

### Background

22q11.2 deletion syndrome (22q11DS) is a genetic disorder associated with an increased risk for psychosis. A dysfunctional motivational reward system is thought to be one of the salient features in psychosis caused by abnormal dopamine functioning. It is unknown whether patients with 22q11DS have a dysfunctional reward system.

### Methods

We included 12 adults with 22q11DS (age: 34,6 years, 67% females) and 16 healthy controls (HC, age:38,1 years, 75% females). A single infusion DA D2/3 receptor [18F]fallypride positron emission tomography (PET) scan was acquired to investigate the DAergic activity in striatal (putamen, caudate nucleus, ventral striatum) and frontal regions. During the PET scan all subjects performed a version of the learning phase of the Probabilistic Stimulus Selection Task for reward learning (RL), modified to deliver social feedback.

#### Results

IQ-scores were significantly lower in the 22q11DS group (p<.001) compared to HC. The 22q11DS group earned significantly less money (p<.05) and performed worse during the RL-task (p<.05) than HC. The preliminary PET analyses show that the percentage of active voxels during reward learning is significantly higher in 22q11DS compared to HC in the right caudate nucleus (p<.05).

### Conclusions

These results indicate that people with 22q11DS are less susceptible for reward than HC because their overall performance during RL is worse than HC. In addition, people with 22q11DS showed different special extent of reward-induced DA release in striatal regions compared to HC. The lower reward sensitivity could be a result of haplo-insufficiency of COMT in 22q11DS and consequently abnormal dopamine functioning.



### 2659 - Fragmented transition pathway for ID, ASD and Mental Health

Dr. Lionel Lubitz Royal Children's Hospital Melbourne

Fragmented transition pathway for ID, ASD and Mental Health

Dr Lionel Lubitz

#### Introduction

One in three people with mild to moderate Intellectual Disability (ID) and/or Autism Spectrum Disorder (ASD) has a mental illness. Approximately 80% of these young people are high users of health care resources. However there are often no established transfer pathways to adult services, and transition is often difficult and disjointed particularly for people with severe ID or ASD with behavioural concerns.

### **Objectives**

This study was designed to understand the needs and knowledge of practitioners involved in transition of patients with ID and/or ASD with mental health (MH) comorbidities from the Royal Children's Hospital (RCH) Melbourne, Australia to adult services and introducing a holistic model of care.

### Methods

An interview using standard question prompts to explore child health practitioners' experience and understanding of transition, was completed internally with 27 medical professionals involved in the care of this group of patients. External interviews are planned for early 2017 with primary care, disability services, psychiatrists and community services.

### Results

All practitioners recognised major deficits in our large tertiary hospital's transition process for this patient group and the majority (76%) reported the transfer process was not well done. There was no consistent view on the right age for transition to commence, with suggested age ranging from as soon as there is a diagnosis (9%), to 14 (30%), 15-16 (38%) and 17 (23%) years of age. The role of primary care was seen as important by 73% and yet 65% recognised significant deficiencies in this area.

Problems identified by a substantial proportion of respondents including:

- (1) difficulty finding skilled and/or interested adult practitioners as the major challenge (65%)
- (2) fragmented adult care and a lack of shared care between tertiary and primary health care

(46%)

- (3) lack of case management (40%)
- (4) family anxiety about transition (35%)
- (5) cost of care, medication and limited time available from adult services (30%).

### Conclusion

The transition of patients with ID and or ASD with MH comorbidities is challenging, and perceived to be done poorly by doctors at a major tertiary paediatric hospital in Australia. The importance of a well-developed transition process was recognised by most respondents. This presentation will also suggest mechanisms to improve transition for these individuals.



## 2699 - KOMPASS - Social Skills Group-Training for Adolescents with Autism Spectrum Disorder: Results of the Evaluation

PD Dr. Bettina Jenny Clinic for Child and Adolescent Psychiatry

Manualized treatments for children and adolescents with ASD match the requirements for structured and easily applicable programs in basic health care systems. The manual of the Social Skills Group Training for Adolescents with ASD (KOMPASS) (Jenny et al., 2012) has been developed at the Autism Clinic at the Department for Child and Adolescent Psychiatry, University of Zurich. In the beginner's group (KOMPASS-Basics) understanding emotions, small-talk and nonverbal communication as well as social understanding and perspective taking are conveyed. In the advanced group (KOMPASS-F) complex interactions, complex communications and theory of mind are practiced. We previously evaluated the beginner's training and showed a reduction in ASD symptoms. Here we introduce and evaluate the KOMPASS advanced training (KOMPASS-F) together with an extended re-evaluation of the KOMPASS-Basics. In both trainings, two instructors work with 7-10 participants for 25-30 sessions and 3 information-sessions for caregivers. KOMPASS makes use of the cognitive profile typically observed in ASD, e.g. local processing, systemizing and task orientation. Therapeutic procedures include structuring, visualizing, explicit learning of implicit social rules provided on information sheets, step-by-step learning and concretizing abstract concepts. Our re-evaluation of KOMPASS-Basics compares reduction in autistic symptom and mental health scores obtained via questionnaires rated by parents and teachers for an intervention group (ni=110) and a waiting control group (nc=56) before (pre) and after (post) 7-8 months. Followup data (nf=94) is collected 12 months later in the intervention group. Additionally, we investigate if patients (ne=35) from the KOMPASS-Basic-groups in other clinics show similar improvements compared to Zurich. Similarly, for the KOMPASS-F group, questionnaires were acquired at the same three timepoints (ni=53, nc=50, nf=40). Data was analysed with linear mixed-models.

For the KOMPASS-Basics group, post-hoc t-tests revealed significant declines in autistic symptoms and increase in social skills with moderate to high effect sizes. Similar effects were found in the external institutions. The waiting group showed no effects. Remarkably, KOMPASS-F training led to additional improvements over and above the social skills acquired during KOMPASS-Basics training.

In conclusion KOMPASS helps adolescents and young adults to cope better with social aspects of everyday life.



## 2932 - A Fragmented World: Management of Childhood Autism Spectrum Disorder in New Zealand

Dr. Hiran Thabrew University of Auckland

Objectives: Since the launch of the Autism Spectrum Disorder (ASD) guidelines in New Zealand in 2008, and the subsequent introduction of locality-based ASD coordinators, district health boards around the country have attempted to improve services for children and adolescents with ASD. However, the extent to which things have actually changed over the past decade remains unknown. This study sought to compare current service provision for children and adolescents and to investigate differences between the assessment and intervention phases of management in relation to national recommendations.

Methods: A nation-wide survey of practitioners working with children and adolescents with ASD was undertaken in 2016 to identify the types of services being provided and to compare current practice with that recommended by the ASD guidelines.

Results: Responses were received from practitioners in 17 out of 20 district health boards. The majority of respondents were aware of the guidelines and the presence of ASD coordinators within their organisations. Significant differences were identified between assessment of children in paediatric settings and adolescents in mental health settings. Intervention services were found to be even more variable in nature and limited in relation to recommended standards.

Conclusions: Despite the improvement in some aspects of care, further work remains to be done to reduce the variability and fragmented nature of services for for children and adolescents with ASD in New Zealand. The principles learnt from our country are likely to be relevant to service providers and planners in other countries.



3392 - Impact of the Early Start Denver Model applied 12 hours per week over a 9 months period on the cognitive level of children with autism spectrum disorder: A Pilot study

Dr. Marie-Maude Geoffray Centre hospitalier Le Vinatier

Early start Denver Model (ESDM) is a developmental and behavioral model of intervention for toddlers with Autism Spectrum disorder (ASD). Previous study has shown efficacy of a 20 hours per week therapist-delivered ESDM intervention on the cognitive level of children with ASD, over a 2 year period. At the beginning, two early intervention units applying the ESDM 12 hours per week were created in France. It was essential to evaluate impact of 12 hours per week ESDM intervention with 1 therapist for 1 child on the cognitive level of children with ASD.

A prospective before-and-after trial included 19 toddlers with ASD. We showed significant improvements in all cognitive and language skills at the Mullen Scale of Early Learning (MSEL). After only 9 months, major improvements were shown in receptive Language. Moreover, we will discuss that our outcomes were similar, with a smaller intensity (12 hours versus 20 hours per week), to the study of Dawson et al. (2010).

ESDM applied 12 hours per week, by a multidisciplinary team and in collaboration with parents, may be an efficient intervention to improve cognitive and language skills of children with ASD. We will next run a multicenter randomised control trial ESDM 12 hours per week over 2 years-period.



# 2591 - Relations between problem behaviors, perceived symptom severity and parenting in youth with ASD: The mediating role of parental psychological need frustration

Lisa Dieleman Ghent University

Objectives Research is increasingly documenting the importance of children's problem behaviors and symptom severity for parenting behaviors in parents of children with ASD. The underlying mechanisms of these child-effects, however, have not been examined thoroughly. This study examines the mediating role of parental need frustration in the relation between child maladjustment (i.e., problem behavior and autism severity) and parenting behavior (i.e., controlling parenting and autonomy support). Based on Self-Determination Theory (Deci & Ryan, 2000), we hypothesized that child maladjustment would relate to the frustration of parents' needs for autonomy, competence, and relatedness, and via this, to controlling parenting and low autonomy support.

Methods Data were drawn from the 3rd wave of a long-term longitudinal study (Dieleman et al., in press). The sample included 116 parents, mainly mothers, of adolescents/emerging adults with ASD (Mage = 18.9). Parents completed questionnaires concerning the their parenting strategies (i.e., psychological control, over-reactive discipline, and autonomy support), their psychological need frustration, the behavioral problems, and autism severity of their child.

Results The mediation model indicated that symptom severity had a direct association with lower autonomy support ( $\beta$ = -.33; p < .01). Externalizing problems were associated with parental need frustration ( $\beta$  = .56; p < .05), which was, in turn, related with controlling parenting ( $\beta$  = .82; p < .001). The significant indirect association ( $\beta$ = .46; p < .001) indicated that the effect of externalizing problems is fully mediated by need frustration. Internalizing problems were not associated with parenting behaviors.

Conclusions Externalizing problems impede parents' connection with their child, their parental competence and their sense of volitional functioning, feelings to which they respond by increasing controlling strategies. The direct effect of autism severity suggests that parents respond directly to their child's autism symptoms by lowering their autonomy support, without experiencing these symptoms as a threat to their psychological needs. In addition to yielding more insight in associations between child maladjustment and parenting, these findings have practical implications. Interventions targeting adolescents and parents in this challenging developmental period could focus not only on parenting behavior but also on parents' experiences of need frustration.



## 3467 - Conditions of effective psychological rehabilitation of the child with atypical autism

PhD Chinara Kozhalieva Moscow City University

The system of psychological assistance to children with autism in Russia has changed significantly and rapidly developing in a positive vector in our day. Institutions of medical and educational profiles in their professional activities carry out rehabilitation work: medical, psychological, educational. The General trend of the increasing number of children with autism in special schools is clearly evident in the framework of one institution, where the percentage of this category of children in recent years is 15% of the total number of students in the school, among the new entrants is 30%. Teachers and psychologists work with the child regardless of what form he is educated in what type of educational organization (general, special, inclusive). However, this problem is often decisive for the content and quality of psychological assistance to children with autism. Not every type of school has qualified professionals who know the needs of the child, not everywhere there are conditions for integrated support, including psychological-pedagogical and medico-social rehabilitation component. In special school there are conditions for a comprehensive support of a child includes special program, focused on the educational needs and educational opportunities of the autistic child; compliance with gentle conditions prevents fatigue.

Effectiveness of rehabilitation largely determined the professionalism of the support of the child. Problem the professional competence of psychologists depends on the system of University education that does not offer special programs on formation of knowledge of the specifics of dysontogenesis, diagnostic tools, effective rehabilitation practices. Cooperation of universities and institutions (in Russia and abroad), which have successfully and systematically solve problems of medical-psychological-pedagogical rehabilitation of children with autism, conducting on their basis training of students, could qualitatively to enhance professional competence by minimizing problems "entering into profession" of young professionals. Today, we have methodical and technological capabilities. We understanding - effective psychological help it is possible to provide, when it is part of a comprehensive rehabilitation, is implemented in specialized institutions with qualified specialists with a wide professional horizon.



## 2975 - Perinatal stress moderates the link between early and later emotional difficulties in childhood: An 11-year-long longitudinal study

PhD Nevena Dimitrova

Objectives: Very preterm (VP) birth refers to an early stressful event putting children at heightened risk for behavioral and emotional difficulties. However, it remains unknown whether early emotional difficulties persist later in childhood and, importantly, whether the severity of the perinatal stress moderates this link.

Methods: 36 VP children and 23 full-term born (FT) children participated in an 11 year-long study. Perinatal stress was assessed at birth with the Perinatal Risk Inventory (PERI groups: low PERI: 100% of FT vs. 44% of VP children; high PERI: 56% of VP children). Early emotional problems were reported by mothers at 18 months in the behavioral and emotional disorders subscale (BE) of the Symptom Checklist. Later emotional problems at 11 years of age were reported by mothers through the internalizing problems (IP) subscale of the Child Behavior Checklist.

Results: First, examining whether the severity of perinatal stress affects IP, a t-test indicated significant differences between the low (M=51.92, SD=8.43) and high (M=59.60, SD=11.64) PERI groups (t(55)=-2.865, p=.006). Second, we correlated BE at 18 months with IP at 11 years and found a significant link in the high PERI group (r=.618, p=.004) but not in the low PERI group (r=.015, p=.933). Last, controlling for socio-economic status and intelligence quotient, we performed a regression analysis predicting child IP at 11 years by group (VP vs. FT), PERI groups (high vs. low), and BE at 18 months (main effects), as well as the interaction term of BE at 18 months with either group and PERI groups. This regression model significantly explained 36% of the variance in child IP at 11 years, F(7,52)=3.68, p=.003, R2change=.140. Specifically, the interaction between BE at 18 months and PERI groups refers to a significant predictor of later IP. Further analyses revealed that BE at 18 months marginally predicted children's IP at 11 years only in the high PERI group ( $\beta$ =.418, p=.063), but not in the low PERI group ( $\beta$ =-.048, p=.801).

Conclusion: Prematurity affects children's emotional abilities. Importantly, the link between emotional problems in early and later childhood is moderated by the severity of the perinatal stress. In particular, children who are born with more complications, experience more stress in the perinatal period, and are more likely to sustain their early emotional difficulties later in childhood.



3496 - Interaction and behaviour imaging: a novel method to measure mother-infant interaction using video 3D reconstruction in high risk dyads.

Dr. Sylvie Viaux Savelon APHP, CHU Pitié Salpetriere

### Introduction:

Studying early interaction is essential for understanding development and psychopathology. Automatic computational methods offer the possibility to analyse social signals through behaviours of several partners simultaneously and dynamically.

The aim of the current study was to show the validity of the aforementioned automatic method by comparing our methods with the well-validate Coding Interactive Behavior (CIB) in neglected dyads.

#### Methods:

20 dyads of mothers and their 13-36 months old infants were videotaped during mother-infant interaction including 10 extremely high risk and 10 low risk dyads using both 2D and 3D sensors. From 2D+3D data and 3D space reconstruction, we extracted individual parameters (Quantity of movement and Motion activity ratio for each partner) and dyadic parameters related to the dynamics of partners heads distance (Contribution to heads distance), to the focus of mutual engagement (% of time spent face to face, or oriented to the task), and to the dynamics of motion activity (Synchrony ratio, Overlap ratio, Pause ratio). Features are compared with blind global rating of the interaction by expert coders using the Coding Interactive Behavior (CIB). Results:

We found that individual and dyadic parameters of 2D+3D motion features perfectly correlates with rated CIB maternal composite scores (maternal sensitivity, mother limit setting and mother intrusiveness) and CIB dyadic composite scores (dyadic reciprocity/synchrony and dyadic negative status).

#### Conclusions:

Our method may present a low-cost methodology that can employ artificial technology to detect meaningful features of human interactions and may have implications for studying dyadic behaviours in psychiatry.

### Learning Objectives:

Combining both clinical rating scales and computerized methods with this promising method may enable a continuum of time-scale from a summary of entire interactions to second-by-second dynamics and have implications in early child psychiatry concerning development of parent- child interactions.



## 3525 - 2. Attachment focused intervention can support preterm infant social-emotional development: results of the PIPPA Study

Dr. Aoife Twohig Our Lady's Children's Hospital Crumlin

A mother's sensitivity in responding to her infant's signals, forms the basis of secure attachment and is protective of later mental health. Video Interaction Guidance (VIG) is a strengths based intervention using moments from a video of parent-infant interaction observed and reflected on, which enhances parental sensitive responsiveness to their infant and also supports parents' self-awareness. The aim is to evaluate the effects of an early attachment focused intervention for parents of very preterm infants born <32 weeks GA, in the NICU.

Methods: A pragmatic randomised controlled trial in a level III NICU with preterm infants born <32 weeks' GA and their parents. The Preterm Infant-Parent Programme for Attachment (PIPPA) is a 3 session therapeutic intervention of reflective discussion, observation of infant cues and 1 VIG session. Primary outcome: maternal sensitivity measured by the CARE-Index at 9 months CA. Secondary outcomes: Infant social-emotional problems on the Ages and Stages Questionnaire – SE. Intention to treat analysis of data of first twin is presented as primary analysis.

Results: Eighty mothers, of 98 infants, consented andwere randomly allocated to intervention and control groups. There were no differences between the groups in socioeconomic status (p<0.356) in mean birth weight (p=0.97) or gestational age (0.79). Mothers in the intervention group had attained a higher level of education than mothers in the control group (p<0.008). Subsequent analyses were adjusted accordingly. Primary Outcome: There was no statistically significant difference between the intervention and control groups in maternal sensitivity at 9 months CA. Secondary outcomes: Infants receiving the intervention had lower self-regulation problems at 12 months CA (p=0.05). Infants whose mothers had received the VIG session, had significantly fewer communication problems (p<0.002). The intervention effect was moderated by ethnicity.

Discussion and Conclusions: This brief attachment focused intervention using VIG with parents of preterm infants showed improved social-emotional outcomes at 12 months CA, while no significant effect was found on maternal sensitivity, adjusting for maternal education. Integrating and evaluating interventions such as this in the NICU can enhance social-emotional and mental health outcomes of preterm infants.



### 2320 - Cognium(Ayurvedic medicine) use in ADHD children

Prof. Dr. Vijay Warad Sai speciality hospital

A CLINICAL TRIAL TO EVALUATE THE COMPARATIVE EFFICACY OF COGNIUM SYRUP WITH STANDARD BEHAVIOURAL THERAPY VIS-À-VIS STANDARD BEHAVIOURAL THERAPY ALONE IN CHILDREN WITH ATTENTION-DEFICIT HYPERACTIVITY DISORDER (ADHD)

Dr. Vijay Warad, Dr. Milind Patil ABSTRACT

An open label, comparative, 16 week study was conducted to evaluate the efficacy of Cognium syrup, a poly herbal formulation, on children between 6 – 14 years of age group with attention-deficit hyperactivity disorder (ADHD). A total of 76 children were enrolled as per the DSM IV (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition) criteria for ADHD. Enrolled patients were divided in two groups. Group A received Cognium syrup along with behavioral therapy and Group B was on behavioral therapy only. Both the treatment groups were comparable in terms of the baseline scores. The statistical analysis was carried out in only 60 children as remaining were dropped from the study. Treatment with Cognium syrup led to uniform improvement in all parameters. The total symptom score (TSS) decreased in 96.6% of patients in group A compared to 46.6% in group B. The average performance score for functional impairment decreased in 80% patients in group A and in group B by 36.66%. The well tolerated Cognium syrup demonstrated significant improvement in ADHD symptoms inattention, impulsiveness and hyperactivity in intervention group, indicating a promise for ADHD children.



## 2811 - La famille comme problème et comme ressource en clinique pédopsychiatrique

PD Dr. Gérard SALEM CONSYL, Lausanne

La famille d'un enfant ou d'un adolescent joue un rôle de premier plan dans son développement. Celui-ci est certes le patient du clinicien, mais il est aussi la plupart du temps le patient "désigné" de sa famille (index patient). Prendre en compte le système familial représente ainsi un levier de compréhension et un potentiel de changement inestimables pour le thérapeute. Les auteurs aborderont quelques procédés cliniques pertinents dans l'approche du système familial pour le pédopsychiatre, aussi bien pour élucider une problématique au retentissement individuel que pour s'appuyer sur les ressources représentées par les membres de la famille, en vue d'un changement clinique. Deux cas cliniques illustreront les idées et les méthodes cliniques exposées.



### 2711 - Systemic approach to families and schools

Markus Grindat Zentrum für Systemische Therapie ZSB Bern

Transition: Der Wandel von Mustern der Interaktion in Familie und Schulklasse durch systemische Interventionen. Ein sehr erfolgreiches Modell vor allem bei komplizierten und mehrschichtigen Problemen. Mit dem Hintergrund einer bindungstheoretischen und behavioralen Logik werden funktionierende Wechselwirkung beobachtet und verstärkt. So finden Erwachsene Zugänge zu Kindern und Jugendlichen, die als schwierig, speziell oder fremdartig empfunden werden, um diese Kinder passgenauer zu fördern. Es sind lebensweltorientierte Ansätze aus der aufsuchenden (mobilen) Familientherapie.



## 2812 - Psychiatric issues in relation to consultations conducted with unaccompanied minors at OMP

Dr. Serges Djapo Yogwa

Psychiatric issues in relation to consultations conducted with unaccompanied minors at OMP

### Objective

Over the last two years, the canton of Geneva has received a record number of unaccompanied minors coming from different war zones. Initially, this influx had a significant impact on the social and educational systems. Housing, guiding and schooling of these minors was the priority. After this first phase, the main concern shifted towards the health care system and as a result the system of somatic care had to be reorganised. Since one year, the psychic care system has gradually been affected and we have witnessed a substantial increase of this population's demand

Most of these teenagers have experienced multiple trauma. However, when they arrive at OMP, we are faced with very heterogeneous requests for care. In this presentation, we wish to assess the situation of these minors and explain the clinical adjustments we have had to make to respond to these different requests for care.

### Method and results

In order to assess the current impact of this consulting population on our health care system, we will compare the number for these specific demands and the numbers of general consultations. The periods compared are two six months periods: from October 2015 until March 2016 and October 2016 until March 2017. Then, we will present a statistical analysis of the reasons for consultations and we will highlight the average time between the arrival in Geneva and the requests for psychic care. We will also detail the various psychic disorders and the current social conditions of life. Finally, we will present different measures that we have put in place to respond to these specific requests.

We will illustrate this statistical data using three clinical situations we have experienced in our consultation work.

### Conclusion

With this presentation, we hope to give an overview of the psychiatric problems resulting from this wave of migration of unaccompanied minors which is currently increasing rapidly in Europe.



## 2974 - Crisis Intervention Program for Children and Adolescents (CIPCA), updating and recent data

Dr. Abdulbaghi Ahmad Uppsala University

### Objectives:

Posttraumatic psychopathology has been identified as longstanding and devastating, particularly after childhood trauma. Still, no evidence-based prevention has been identified. Crisis Intervention Program for Children and Adolescents (CIPCA) was found at the Metin Health House (MHH) in Duhok, Kurdistan Region of Iraq (KRI), to early provide cost-effective and time-saving crisis intervention to prevents posttraumatic psychopathology among the surviving children and adolescents from the war of the Islamic State in Iraq and Syria (ISIS). Methods:

In a pilot project supported by WHO and the Directorate of Health in Duhok governorate, 37 health professionals received one-week training of trainers (ToT) in group at the MHH. Every two certified trainers provided one-week training to a group of 30 teachers inside the camps of the Internally Displaced Peoples (IDP) around the city of Duhok. Totally, 300 IDP teachers received the CIPCA group leader certificate. Every two group leaders provided a single one-hour group intervention to 30 IDP school children. Totally, 22000 school children received CIPCA intervention, 15% showed psychological distress during the group intervention, 50% of them needed treatment.

To examine the effectiveness of CIPCA in preventing posttraumatic psychopathology, informed consent was obtained from 4500 responding school children and their caregivers to participate in a 5 years follow-up study. They were class-randomized to CIPCA intervention or controls, consequently. Caregivers filled the Child Behavior Check List (CBCL) before the CIPCA intervention and annually in 5 years.

### Results:

Totally, 366 completely filled CBCL were received before the intervention. Due to lack of funding, only 28 participants were traced at the first year follow-up. All the caregivers refilled the CBCL. Both girls and boys improved in problem scores after CIPCA compared with deterioration among the controls.

### Conclusions:

Improvement in problem scores among CIPCA receivers at one-year follow up seems to be promising. Funding is needed for further follow-ups to improve the evidence to confirm the effectiveness of CIPCA in preventing posttraumatic psychopathology. Updating and recent data from different child populations will be presented.



## 3130 - PSYCHIATRIC DISORDERS AMONG YAZIDI CH**İ**LD AND ADOLESCENT REFUGEES IN TURKEY'S CAMP

Dr. Serhat Nasıroğlu

## PSYCHIATRIC DISORDERS AMONG YAZIDI CHİLD AND ADOLESCENT REFUGEES IN TURKEY'S CAMP

Nastroğlu S 1, Çeri V 2, Erkorkmaz Ü 3 and Semerci B 4

- 1. Sakarya University Faculty of Medicine Department of Child and Adolescent Psychiatry, Sakarya, Turkey
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- 3. Sakarya University Faculty of Medicine Department of Biostatistics, Sakarya, Turkey
- 4. Department of Psychiatry, Bengi Semerci Institute, Istanbul, Turkey

Objective: To report the mental health states of a sample of Yazidi refugee children and adolescents psychiatric disorders among the children and adolescents participating in the research.

Method: The participants of this research are children and adolescents between the ages of 6-17 who live in the refugee camp in Turkey. Two child and adolescent psychiatrist speaking their mother-tongue language interviewed and evaluated each participant. Data collected include socio-demographic and past and current living situation and the Schedule for Affective Disorders and Schizophrenia for School Age Children-Present and Lifetime Version-Turkish Version (K-SADS-PL).

Results: 136 children and adolescents (76 boys, 63 girls; mean age = $11.05\pm3.11$ (SD)) At the time of the assessment 43.4% had PTSD (n:59), 27.9% depression (n=38), 10.3% nocturnal enuresis (n=14), 9.6% Behavioral Disorder (n=7), 5.1% anxiety disorder (n=13).

Conclusion: Many of the refugee children and adolescents developed psychiatric disorders, or are at risk, especially for PTSD and depression. Their lower spirit and hopelessness might be evaluated as expected consequences considering the fact that those with a psychiatric diagnosis have experienced severe war and migration traumas (loss of a loved one, friends and family left in the war zone, death directly related to war, and injuries) compared to the others.1, 2

Keywords: Child, adolescent, refugees, psychiatric disorder, risk factor References:

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## 3451 - Helping abused children from various minorities in the Greek context of refugee crisis

Dr. Athanasios Kanellopoulos The Smile of the Child

### Objectives

Children's abuse and neglect is widely studied as a major risk factor for emotional and behavioral disorders, various somatic and psychiatric problems during adulthood. Mental health is fundamental to health. Mental illnesses are real, disabling conditions affecting all populations regardless of race or ethnicity but disparities in mental health services exist for racial and ethnic minorities, and thus, mental illnesses exact a greater toll on their overall health and productivity. Methods

The most important bet when working with ethnic minorities is to better understand the roles of culture, race, and ethnicity, and overcome obstacles that would keep anyone with mental health problems from seeking or receiving effective treatment.

The Day Centre "THE HOUSE OF THE CHILD" is a community unit which provides customized clinical mental health services for therapeutic treatment and psychosocial rehabilitation of children victims of abuse, neglect or domestic violence. The Day Centre was founded by the non-profit voluntary Organisation "THE SMILE OF THE CHILD". The services are based on the bio-psycho-social model approach and treatment which aims at early detection and treatment of possible mental disorders and the overall psychosocial rehabilitation of victims of abuse / neglect and the support of their carers.

### Results

By identifying the many barriers to quality care faced by racial and ethnic minorities, the Day Center provides mental health services also to children who come from minority populations. Conclusion

Different case studies highlight challenges and various levels of difficulties in this specific scheme of cooperation aiming to open an interesting dialogue on the topic.



## 3431 - Immigration- related mental health problems of refugees aged between 5-18 years old that live in Manisa, Turkey

Dr. Şermin Yalın Sapmaz Celal Bayar University Medical School Hospital

Aim: This study aimed to assess early-onset psychiatric disorders and factors related to these disorders in a group of refugee children upon immigration due to war.

Methods: The study was conducted between January 2016- June 2016. Clinical interviews were made with 89 children and their families. Clinical interviews were carried out by native speakers of Arabic and Persian that were primarily educated with these languages and have been living in Turkey for a long time. Strengths and Difficulties Questionnaire (SDQ) that had Arabic and Persian validity and reliability were applied to both children and their families.

Results: Eighty-nine children and adolescents were interviewed within the scope of the study. Mean age of cases were 9.96±3.98 and 56.2% (n=50) were girls while 43.8% (n=39) were boys. Within these children, 47 (52,8%) has come from Syria, 27 (30,3%) from Iraq, 14 (15,7%) from Afghanistan and 1(1.1%) from Iran. Children have been living in Turkey for 22.1±13.0 months while 18.8±13.3 months, in Manisa. One psychiatric disorder was found in 44 (49,4%) of the children. Twenty-six children were diagnosed with anxiety disorders, 12 with depressive disorders, 8 with trauma and related disorders, 5 with elimination disorders, 4 with attention deficit- hyperactivity disorder, 3 with intellectual disability. It was determined that seeing a dead or an injured person during war/emigration and father's unemployment increased the odds of psychopathology.

Discussion: Within the context of war and emigration, these children try to cope with negative circumstances they had prior to migration and the despair their parents are in. They also are not able to attend school regularly and manage to maintain their physical needs. In case of failed interventions to manage the situation, it is of no doubt that this shall have dire psychosocial consequences.



## 2359 - Financial crisis in Greece: Is material deprivation related with adolescents' aggressive behavior?

Prof. Dr. Helen Lazaratou National and Kapodistrian University of Athens

Aggressive behaviors are common during adolescence. In Greece, adolescents and their families experience a severe and enduring recession with adverse implications on mental health outcomes. This study aimed to examine the correlation of adolescent's aggressive behavior and economic factors. The Buss-Perry Aggression Questionnaire (AQ) and three questions of the Household Food Insecurity Access Scale were administrated to a sample of 2159 students of the Greater Athens Metropolitan Area. Students that during the previous four weeks had experienced household food insecurity (anxiety- uncertainty about food, insufficient food quality or insufficient food intake) or their pocket money decreased within the last month scored on average significantly higher in the AQ compared to their counterparts who did not. The shortage in basic goods due to the actual Greek economic crisis seems to be related to aggressive behaviors during adolescence and we should take it into account in the clinical practice.



## 2869 - Want to Know a Secret? Using Random-Intercept Cross-lagged Panel Models to Clarify the Link Between Secrecy and Privacy Invasion

Evelien Dietvorst Tilburg University

Parenting processes take place at the level of the family unit. Existing longitudinal studies are increasingly critiqued for producing results that are unrelated to the actual causal mechanisms at the level of individuals or individual families (Hamaker, Kuiper, & Grasman, 2015). In fact, some studies on parenting have addressed this concern (e.g., Keijsers, 2015; Smetana, Villalobos, Rogge, & Tasopoulos-Chan, 2010) which provides the intriguing suggestion that inferences based on research focusing at the group level (e.g., regression model), may be different from, or even contradictory to, the actual parenting processes at the level of individual families.

This symposium contribution applies novel Random-Intercept Cross-lagged panel models (Hamaker, Kuiper, & Grasman, 2015) on the link of privacy invasive parenting with adolescent secretive behaviours, to come to better estimates of how parenting operates within families. By extending a standard cross-lagged panel model, to distinguish the between-person from the within-person effects, this novel method allows to critically evaluate whether (H1) there are indeed positive effects of privacy invasive parenting on secrecy at the level of a family unit.

Dutch adolescents (n = 244, mean age = 14.07, 40% boys) reported three times on perceived parental privacy invasion and secrecy from parents.

The standard cross-lagged panel model on adolescent-perceived privacy invasion and secrecy confirmed earlier studies (e.g. Hawk et al, 2013) that privacy invasive parenting predicts increased secretive behaviours over time. However, RI-CLPM, designed to improve causal inferences show a different pattern. The positive between-person correlation confirmed earlier work that in families with more secrets, more privacy invasive behaviours occur. Within-persons, however, children were more secretive in periods with lower levels privacy invasion (significant correlated change).

In contrast to inferences in earlier work, secrecy was related to decreased privacy invasion within families. Findings of standard cross-lagged panel models may thus be opposing to the processes operating within families.



## 2870 - Cross cultural study of an intensive treatment model for neglecting and/or abusive parents of infants

Dr. Sylvie Viaux Savelon APHP, CHU Pitié Salpetriere

Introduction: Neglectful and/or abusive parenting is a major risk factor for the infant development. Early intensive treatment may lessen the risk. The most frequent therapeutic obstacle is poor parental compliance. We developed a treatment model based on the intensive provision of support to parents combined with attachment-based guidance.

Method: 50 high -risk families were recruited in two French and Israeli Infant Mental Health units and were enrolled in a parent-infant group and individual parent-child psychotherapy. No control group was available due to ethical limitations. Each case is its own control. The infant's developmental status, the quality of the parent infant interaction and the level of parental psychopathology were assessed at the beginning and the end of treatment (DC 0-3, CGI, BITSEA, SCL 90R, IA, PIRGAS, CIB, HOME).

Results: Despite significant dropout, the therapeutic alliance was better than expected in this type of population. The child's developmental status and the quality of interaction improved significantly. Girls improved more than boys (p=0.044) for PIRGAS, and the child's outcome was inversely correlated with the number of risks factors (p<0.05).

Conclusion: Despite limitations, the intensive therapeutic approach appears promising in treating and preventing very high risk infants, and may prevent child out of home placement.



## 3033 - Semente Project — An experience of implementing a prevention program in COPMI families

Prof. Dr. Teresa Maia Hospital Fernando Fonseca

The Semente Project, developed by the Psychiatric Department (PD) of Fernando Fonseca Hospital (funded by EEA Grants), intends to implement a mental health promotion program for Children of parents with mental Illness (COPMI), a group which has been identified in several studies in the last 40 years as more vulnerable, proving to have a strong association between parental mental illness and the increase of psychiatric risk in their children. The Psychiatric Department's population is characterized with high social risk factors and high rate of migrants. The PD has a strong community implementation, provides an easy access to COPMI and includes a Child Psychiatric Unit (CPT) integrated in the service – fundamental aspects to the implementation of the present project. This project started in April 2015 with the definition of the program and its implementation targets 3 levels of intervention: 1) Universal – health promotion for all the children of the patients, identified and evaluated for their situation; 2) Selective – prevention for cases with higher risk, providing interventions focusing in the child and family, such as Child Talk, Family Talk, Family Group Conference and Support Groups for children; 3) Specific interventions – early identification and treatment of psychopathology in child and adolescents by the CPT. For the intervention, the professionals received training in the preventive interventions with families and started to widen the goals of their work, focusing not only in treating mental illness but also on promoting mental health in COPMI families. In conclusion, this project introduced a new paradigm of intervention in the Psychiatric Department, increasing the skills of the professionals and their awareness to families needs, investing in the reinforcement of patient's parental skills and in the enlargement of protective factors for COPMI.



### 3385 - Parental differential treatment and aggression among adolescents

Dr. Iram Fatima university of the punjab

Objective: The present study aimed to investigate the relationship between parental differential treatment and aggression among adolescences.. It was hypothesized that there is likely to be positive relationship between negative parental differential treatment aspects (negative affective quality and negative control) and aggression and there is likely to be negative relationship between positive parental differential treatment aspects (positive affective quality, support and Fostering independence) and aggression.

Method: Survey was conducted with 150 school students (N=150) including 75 girls and 75 boys of 9th and 10th classes. The Parental Differential Treatment Questionnaires (PDT-Q; Young, 2011) and Buss & Perry Aggression Scale (BPAQ; Buss & Perry, 1982) was used to assess parental differential treatment and aggression.

Results: Results indicated that there was a positive relationship between negative parental differential treatment aspects (negative affective quality and negative control) and aggression. The result also shows that positive relationship between positive parental differential treatment aspects (fostering independence) and aggression.

Conclusion: Parents differential treatment with their children negatively effects children's emotions, in terms of development of aggression in them

Keywords: parental differential treatment, aggression, negative affective quality, positive affective quality, fostering independence.



## 3702 - Think Family/ Whole Family Programme: Early Intervention and Prevention with Families affected by Parental Mental Illness

Prof. Dr. Lina Gatsou Leicestershire Partnership NHS Trust and De Montford University

#### Introduction

We present data from a project drawing on behavioural family therapy principles to train early intervention professionals to use a whole family intervention with families with parental mental illness (PMI) identified under the United Kingdom's "Troubled Families" initiative. These families exhibit several factors identified as key problems in UK social policy: school disengagement, crime, drug and alcohol misuse, socio-economic marginalisation and unemployment.

### Method

75 professionals were trained in an eight-session protocol to work with families with PMI in Leicestershire, UK. These professionals then implemented this protocol in their work with families over the following six months. Data were collected via pre- and post-training questionnaires, pre- and post-intervention questionnaires, and interviews with family members and focus groups with professionals.

#### Results

Results show positive impacts on professionals in raising awareness of the impacts of PMI on families with multiple problems and in increasing their skills in addressing these impacts. Initial results from families paint a complex picture of intersecting challenges but there are indications here too that interventions such as this can have positive impacts.

### Conclusion

We conclude by exploring the implications of both the positive results and the complex lives of families for developing and implementing future interventions and training for professionals working with families with multiple challenges.



## 3058 - Psychiatric Comorbidity and Executive Function after onset of narcolepsy

Hilde Norsted Andresen Oslo Univerity Hospital

### Objectives:

Norwegian Centre of Expertise for Neurodevelopment Disorders and Hypersomnia (NevSom) has since 2010 followed up children who developed narcolepsy after 2009 (+/- swine flu (H1N1). High prevalence of psychiatric symptoms has previously been reported in narcolepsy patients. School observations and clinical consultations have revealed severe school problems in the cohort. We now conduct a study assessing psychiatric- and cognitive issues in order to characterize their psychiatric comorbidity and academic difficulties.

### Methods:

The study explores parent's assessment of their child's psychiatric disorders and executive function after onset of disease. Total 33 children/adolescents, age from 7-19 years, with narcolepsy, 30/33 taking medication for their narcolepsy. Parents filled out Behavior Rating Inventory of Executive Function (BRIEF), and experienced clinicians (first authors) completed the diagnostic interview Schedule for Affective Disorder and Schizophrenia -present and lifetime version (Kiddie-SADS-PL), providing DSM 5 psychiatric diagnoses, with parents, and rated adaptive function by Children's Global Assessment Scale (CGAS).

#### Results:

Parents of 10 children (33.3%) reported at least one present psychiatric condition in their child: the most common being ADHD n=4 (13.3%), anxiety n =3 (11.4%), major depressive disorder n = 3 (8.6 %), autism spectrum disorder n=2 (6.7%), tics disorder n=3 (10.0%). On the BRIEF 22/33 had clinical significant abnormality (T score >65) in at least one of the eight subdomains scores. The most frequently affected subdomain was working memory (54,5%), followed by plan/organize (36,4%). Having a psychiatric comorbid condition, and total scores on the BRIEF was significantly associated with impairment on CGAS (p=0,001 and p<0,001 respectively)

#### Conclusions:

Even on medication children/adolescents with narcolepsy have high prevalence of psychiatric comorbidity and executive dysfunction.

Moreover, having a psychiatric comorbidity and executive dysfunction were both significantly associated with worse overall adaptive function.

Clinicians need to consider and take care of both core narcolepsy symptoms, psychiatric comorbidity and cognitive difficulties in order to improve daily life and enhance better facilitation for the patients.



### 2643 - Incontinence in persons with genetic syndromes

Justine Niemczyk Saarland University Hospital

#### Introduction:

Rates of incontinence are higher in persons with genetic syndromes than in typically developing peers. They are associated with the level of intellectual disability (ID). So far, incontinence was examined only in specific syndromes. The aim of this study was to compare the rates of incontinence over the life span and to identify risk factors in a large cohort of several syndromes using the same methods.

#### Methods:

Parents/carergivers of persons with Down Syndrome (DS), Williams Syndrome (WBS), Noonan Syndrome (NS), Angelman Syndrome (AS) and Mowat-Wilson Syndrome (MWS) filled out two questionnaires on incontinence, as well as the Developmental Behavior Checklist (DBC). Data from 773 individuals aged 4-59 years (nDS=317, nWBS=231, nNS=29, nAS=153, nMWS=43) in 3 age groups (children: 4-12 years; teenagers: 13-17 years; adults: >18 years) were evaluated.

### Results:

The overall rate of incontinence ranged between 21.7% (WBS) and 97.5% (MWS) (DS=25.5%; NS=29.2%; AS=85.6%). Incontinence rates decreased significantly over the age groups in DS (64.0% - 10.3% - 14.0%), WBS (51.5% - 19.4% - 4.7%) and AS (96.6% - 92.6% - 74.0%), but not in NS (50.0% - 14.3% - 16.7%) and MWS (95.7% - 100% - 100%). Constipation was found in NS only in childhood (30%), while there was a significant increase with age in MWS (13.0% - 55.6% - 50.0%). In DS, WBS and AS, the rates remained constant through the lifetime. Incontinence is associated with psychological symptoms in WBS and DS, with epilepsy in AS and with physical disability in DS.

#### Conclusion:

This is the largest study on incontinence conducted in persons with genetic syndromes, so far. Incontinence is common and remains a problem from child- to adulthood, especially in syndromes with severe ID. Not only ID, but also other medical influences (anomalies/malformations, epilepsy, dementia, psychiatric disorders) are involved as risk factors for incontinence.



## 2646 - Are self-actualizing and parenting thanks to biotechnologies defining new cycles of life?

Dr. Agnès CONDAT GH Pitié Salpêtrière

Objectives: Today, biomedical technologies can defy the laws of "natural" growth and procreation, by enabling transgender persons not only to reach their true identity as a subject, but also to access parenting. Biotechnologies applied to gender dysphoria improve adolescent well-being via gender transition. Assisted reproductive biotechnologies help couples that cannot have children via "natural ways" to access parenting. In each domain, ethical aspects have been studied and are still debated given the societal impact.

Based on clinical multidisciplinary seminars gathering child psychiatrists and psychoanalysts interested in the fields of assisted reproduction technology (ART) and gender dysphoria, philosophers interested in bioethics, biologists interested in ART and endocrinologists interested in pubertal suppression, we explore how new biotechnical opportunities - be it in gender transition or procreation - make new cycles of life possible.

Methods: This research was carried out by a systematic analysis of the articles published on this topic since 2011, by keyword entries on the pubmed database. These key words were Transgender people, Gender Dysphoria, Assisted Reproduction Technology, Gender transition, Ethics, LGBT Health. The references mentioned by these papers in relation to the topic were then also analyzed. The whole was discussed at the clinical multidisciplinary seminars.

Results: After reviewing the various medical/surgical techniques for physical gender transition and the current ART options, we discuss how these new ways for human beings to access self-actualizing and parenting, by defining new cycles of life, introduce a real improvement to the condition of these people (and to the human condition as a whole through greater equity) but also some disjunction points in the habitual patterns of traditional thinking, shaking the symbolic marking of many.

### Conclusion:

Finally, we discuss the ethical issues that accompany the arrival of these "children of science" and provide creative solutions to help society cope with, accept and support, the developments already made in this area.



# 3179 - PSYCHIATRIC DISORDERS, BEHAVIORAL AND EMOTIONAL SYMPTOMS IN CHILDREN AND ADOLESCENT WITH PERINATAL HIV INFECTION IN POLAND

PhD Anna Zielinska Medical University of Warsaw

OBJECTIVES: The aims of the study were: (1) to evaluate the prevalence of psychiatric, behavioral and emotional disorders; (2) to determine the relationships between the occurrence of psychiatric symptoms and their clinical and sociodemographic correlates.

METHODS: 56 children with perinatal HIV infection at the age of 6-18 years were qualified to the experimental group (PHIV+). Two groups, matched for age and sex, were recruited as reference groups: (1) group PHEU included 24 healthy children perinatally HIV-exposed but uninfected; (2) group HIV-nA consisted of 43 healthy children of uninfected parents. Behavioral and emotional problems were evaluated by the Child Behavior Checklist (CBCL) and the Youth Self Report (YSR). Diagnostic interview (K-SADS-PL) was used to assess symptoms of mental disorders according to DSM-IV criteria.

RESULTS: 22 (40%) children PHIV + were diagnosed with at least one psychiatric disorder in the course of the project, and 29 (52.7%) were diagnosed during the lifetime. Anxiety disorders (21.8%), externalizing disorders (18.2%) and mood disorders (16.4%) were diagnosed in this group most often. Psychiatric disorders were more observed in patients whose antiretroviral (ARV) treatment was started after the 12 months of age. The prevalence of psychiatric disorders, externalizing and internalizing disorders in children PHIV + was not significantly higher than in both control groups (PHEU: 37.5%, p=0,993; HIV-nA: 23.2%, p=0,43). Children from the PHIV + group scored below the clinical range for all scales in CBCL and YSR. However, parental reports, of PHIV+ group revealed higher severity of problems on withdrawal, social and attention problems scales compared to PHEU group. Increased severity of problems in the YSR problems scales: delinquent behavior, aggressive behavior and externalizing behavior problems was found in subjects with other than C class of HIV infection.

CONCLUSIONS: The prevalence of psychiatric disorders in PHIV + group and the PHEU group is higher in comparison with HIV-nA group, but the profile of the diagnosis is characteristic for the general population. Greater severity of internalizing problems is observed in PHIV+ children compared to PHEU group as well as externalizing problems compared to HIV-nA group.



### 2322 - Model development for the Standardize Child care center, Northeastern of Thailand

PhD Juraporn Tangpukdee

### 1. Background/ Objectives and Goals

Over the decade of child care development center have been establish in Thailand's society. There are approximately 22,000 child care centers under the management of department of Local Administrations, Ministry of Interior. In 2013 the Thai Health Promotion Foundation funding the research project named "the Capacity of Community treasures (COACT)". The COACT project is aiming to develop the model for improves the quality of child care centers. There are fifteen child care centers in Thailand and three child care centers in Northeastern were participating in COACT project.

### 2. Methods

Utilizing the method of Participatory Action Research (PAR) working alongside with the three local administration organizations as following, Ban Phu district Udonthanee Province, Wapee Partum district Sarakam Province and Kud Khon Kaen district Khon Kaen Province. This research project was conducted during May 2013 until July 2016.

### 3. Expected Results/ Conclusion/ Contribution

The Bench-marking model was employed for step learning. There were 52 categories of child care's key performance index. The group learning is key main success for the model development. The two prototype of standardize child care centers were reveled and certified. In conclusion, the prototype child care centers in Northeastern of Thailand now establish the net working in order to improve other child care centers in Northeastern of Thailand.

### Keywords:

- 1. Bench-marking
- 2. Model development
- 3. Standardize Child care center



### 2437 - Retarded sexual maturity and adolescent conflicts

PhD Maryam mohammadi Ministry of education

#### Abstract

Most of the educational psychologists believe that co-education can help the young people to have their sexual instincts activated so that they could release their sexual emotions easily during puberty. In contrast, Islamic educational authorities in Iran strongly insist that children arriving elementary schools must be separated and the teachers and textbooks are chosen according to their sexes. Therefore, men are teaching in boys' schools and women in girls' schools. There has been great effort to include men's pictures in boys' textbooks to prevent from the sexual arousal. As there are not enough universities in the country, the university candidates are mixed in their classes and courses. This can bring flame to the ashes of hidden sexuality and involve the students in abnormal behaviours to control or suppress them. The conflict of interaction with the opposite sex in university with that in the family setting or even society has been proved to create depression among the first year students especially those coming from small and closed environments and rural settings. The statistics of referrals to the counselling office in the university show that self- involvement to control sexual instincts has been the great concern of the students. They spend most of their time thinking about their classmates of different sexes. This paper aims to study the psychological and social outcomes of suppressed instincts for young people having entered the university and the effect on marriage.



## 2478 - Dependency, self-criticism, and problem behavior in adolescence: The mediating role of psychological need frustration

Beatrijs Vandenkerckhove Ghent University

Objectives. According to Blatt's theory on personality development, adolescents with high levels of self-criticism and dependency are more vulnerable to several types of psychopathology. Selfcriticism refers to a preoccupation with self-definition, while dependency is characterized by an excessive concern about the recognition and approval of others. Although a large number of studies has already demonstrated associations between these personality dimensions and psychopathology, less is known about the intervening processes explaining this personalitybased vulnerability. The goal of this study is to deepen our understanding of the mechanisms behind personality-related vulnerability for psychopathology by examining the role of need frustration, a concept central in Self-Determination Theory. We hypothesized that self-criticism and dependency would relate to an increased risk for problem behaviors because these personality dimensions engender frustration of the psychological needs for autonomy, competence, and relatedness. This study builds on a small number of studies that linked both theoretical frameworks. Methods. In this cross-sectional study 284 adolescents (58,5% female; mean age= 14,10; SD= 1,22) and their parents reported about the adolescent's internalizing and externalizing problems. The adolescents also completed a survey assessing self-criticism, dependency, need satisfaction and need frustration. Results. We tested the hypothesized model using structural equation modeling. First, the results indicate that both self-criticism and dependency are significantly related to internalizing problems as well as to externalizing problems. Second, the analysis shows that need frustration fully explains the relationship between personality vulnerability and both internalizing and externalizing symptoms as measured in self-report and in parent-report. Finally, all three psychological needs are involved in the dynamics between personality and problem behavior. Overall, the study provides support for the hypothesized model. Conclusion. Self-criticism and dependency are important transdiagnostic risk factors for a wide variety of types of psychopathology in adolescents. This study suggests that psychological need frustration may play an important explanatory role in this personality-related vulnerability for psychopathology.



## 2631 - RELATIONSHIP OF THE PSYCHOSOCIAL ENVIRONMENT OF ADOLESCENTS AND THEIR MENTAL HEALTH

PD Dr. Mar Ramos Hospital Vall d'Hebron

The main objective of this study is to describe the characteristics of the psychosocial environment of a sample of Autochthonous adolescents and immigrants; Evaluating indicators of mental health and substance use in both groups.

Adolescents of immigrant origin are exposed to a more precarious psychosocial environment than their peers for socio-economic reasons, acculturation and perceived discrimination, which could pose a greater risk of compromising mental health and possible Use of substances in this minority group.

A Longitudinal cohort study with baseline data collection and follow-up at 6 and 18 months respectively is being implemented. A Randomized sample of adolescents (n > 300) between 12 and 18 years old has been collected in the cities of Barcelona and Alicante. The recruitment was done in collaboration with neighborhood community agencies, immigrant associations and schools. The information was collected in the families' homes by previously trained interviewers. The data collection questionnaire includes a Semi-structured interviews including Screening scales for the presence of psychopathology, self report interviews about substance abuse, and variables related to their psychosocial environment and demographic and housing variables (school environment, neighborhood characteristics, Age, gender, level of education, country of origin, legal status, family status, language knowledge, length of residence in Spain, housing characteristics etc.)

The results obtained will be presented for the first baseline evaluation and the first follow-up. An epidemiological description of the sample will be made and those variables that have been shown to be differentiating factors between the two groups of adolescents according to their origin will be reviewed.



### 3039 - Somatic symptoms in the aftermath of sexual assault in adolescents

Dr. Marta Casanovas Imperial College London

### Objectives

Retrospective studies in adults suggest that somatic complaints are increased following sexual assault. There is a lack of studies in adolescents.

We aim to describe the prevalence of somatic symptoms before and after sexual assault and the socio-demographic and psychiatric profile of the participants who experience somatic symptoms. A secondary aim is to assess if the characteristics of the assault have any impact on the somatic symptoms.

#### Methods

Prospective longitudinal observational cohort study assessed adolescents at T0(0-6 weeks post-assault) and T1(3-5 months post-assault) following attendance at the Sexual Assault Referral Centre in London. 94 females who did not have missing values in the "physical somatic symptoms item" at T0 and at T1 were included.

Descriptive data included demographics and details of the index offence. Psychological data were collected using validated scales: Strenghts and Difficulties Questionnaire(SDQ), Children's Revised Impact of Event Scale-13, Short Mood and Feelings Questionnaire, Self-Report for Childhood Anxiety Related Disorders and Development and Well-Being Assessment(DAWBA), Children's Global Assessment Scale. Presence of somatic symptoms were assessed using the SDQ ítem "I get a lot of headaches, stomachaches or sickness".

Chi-square test and Fisher's exact test were performed between categorical variables, t-test and Mann Whitney-U test were carried out among continuous variables. To examine changes between T0 and T1, McNemar's test was used on paired categorical data.

The mediation analyses followed Baron and Kenny recommendations.

#### Results

The prevalence of somatic symptoms prior to sexual assault was 55.3%, and at T1 and increased significantly to 69.1% (p=0.035).

Participants with somatic symptoms(n=65) at T1 had significantly higher levels of PTSD(p=0.002), anxiety(p=0.002) and depressive(0.000) symptoms as well as more of the following disorders at T1: Generalised Anxiety Disorder(p=0.004), Major Depressive Disorder(p=0.02), Panic Disorder(p=0.026) and poorer adjustment(0.000) than participants without somatic symptoms(n=29).

Anxiety, depressive and PTSD symptoms might partially mediate the effects of violent sexual assault on somatic symptoms.

### Conclusions

The prevalence of somatic symptoms increases after sexual assault. Participants with somatic symptoms at T1 are a vulnerable group with higher levels of psychiatric symptoms and disorders as well as poorer functional adjustment than participants without



### S05-17: Oral session on topic "Adolescent"

### 3424 - NON-SUICIDAL SELF-INJURIOUS BEHAVIOR ON A GENERAL ADOLESCENT INPATIENT UNIT

Prof. Dr. Maja Drobnič Radobuljac University Psychiatric Hospital Ljubljana

Introduction: Unit for Adolescent Psychiatry is the only open general adolescent psychiatric department in Slovenia. As an 18-bed unit it admits patients with various types of psychopathology (from early-onset schizophrenia, developmental disorders, emotional disorders, to substance use and emerging personality disorders) and various levels of risk (from no risk of harm to self or others to acute suicidality or active non-suicidal self-injurious behavior (NSSI)) for diagnostic evaluation and treatment. The main treatment method is psychopharmacotherapy together with group- and individual-based psychodynamic psychotherapy, coupled with various other therapeutic modalities (psychodrama, occupational, art and social skills therapies, hospital school). The aim of the present study was to assess the differences between the admitted patients with and without NSSI and propose differential management programs accordingly. Subjects and methods: Retrospective chart review was performed with the patients admitted to adolescent psychiatric unit from December 2015 to December 2016 extracting data on gender, duration of hospitalization, actual or past NSSI, suicidal behavior, admission and discharge SDQ (patient version), cGAS scores and ICD-10 diagnoses.

Results: In the one-year period 108 patients were admitted (73 females, 35 males), their average age was 16.9 years (SD 1.5), 95 patients filled out the SDQ on admission and 58 at discharge. Fifty patients (46.3%) ever engaged in NSSI, in 27 of these (54%) NSSI was present at admission. The patients with NSSI were on average younger (16.5 years vs 17.2 years, p<.05), more frequently female (86.0% vs 51.7%, p<.0001), had more frequent suicidal ideation (43.1% vs 72.0%, p<.005), history of attempted suicide (32.0% vs 7.0%, p<.005), and less favorable admission SDQ scores on overall stress (18.4 vs 15.3, p<.05), emotional distress (6.2 vs 5.2, p=.05), behavioral difficulties (2.4 vs 1.6, p<.01), kind and helpful behavior (7.1 vs 8.1, p.01), any disorder (1.3 vs 0.9, p<.05) and emotional disorder (1.2 vs 0.7, p<.05). There was a trend towards lower scores on all other SDQ scales, admission cGAS scores and the length of hospitalization for patients with NSSI, although these were not statistically significant. Discussion: The data show higher levels of psychopathology in the group of patients with NSSI, who require specific levels of care and specific treatment methods.



### S05-17: Oral session on topic "Adolescent"

### 3326 - Managing Transition. 15 to 25: what room for the psychiatrist of children and adolescents, what room for the adult psychiatrist?

Dr. Milica Spasojevic Fondation de Nant

To become an adult, to succeed in managing the transition of adolescence in order to be able, according to the classical definition, to "love and work", a major challenge for many young patients in the current context of liberal evolution of society and morals. A world marked by the explosion of means of communication and the dissemination of information. The resulting loss of benchmarks offers new freedom but also new risks.

How can we support them at best? Many therapeutic break-ups follow the transmission of young people from one practice to the next, or a first appointment in adult psychiatry. It would be tempting to conclude that child and adolescent psychiatrists are in a better position to carry out these treatments. Would it be judicious to extend their therapeutic prerogatives to 25 years? Or beyond?

Would there be no danger in doing so? The risk of stretching infinitely the process of adolescence? Many questions remain. Is there a definite end to adolescence? When does one become an adult? Does human development follow, on the contrary, an asymptote from puberty to death?

For some, a decisive step in adult development seems to take shape, a "post-adolescence", with specific tasks and challenges, a step that requires the adolescent process to settle at first. A step that includes the resumption and re-integration of identity questions and new representations born of puberty and during adolescence, culminating in an in-depth rethinking of psychological functioning, a fundamentally different, adult psyche.

Becoming an adult means to stop exploring in all directions, even if it means partially curbing creativity, drawing lessons from experience, renouncing omnipotence and devoting oneself to one's choices. To stop dreaming our life, in order to live our dreams, at least in part. And mourning what will not come to pass.

At the Fondation de Nant, a child psychiatrist has been offered a position in the General Adult Psychiatric Clinic to take care of patients between 18 and 25 years of age. Indeed, we believe that working with young adults requires combining both approaches, because the tools specific to the care of adolescents allow us to initiate this work, however, adult psychiatry, by its more ready resort to the principle of reality, allows us to complement it. It is thus equally essential.



### 2434 - Experiences of engaging with mental health services in 16-18 year olds: An interpretative phenomenological analysis

Dr. Alexander Hassett Canterbury Christ Church University

Objectives: Despite older adolescence being a risk period for the development of mental health concerns, engagement with mental health services is low amongst 16-18 year olds. As therapeutic attendance is linked to clinical outcome, it is important to understand engagement in this population. There is a paucity of research looking specifically at the older adolescent engagement phenomenon. Previous qualitative research into adolescent experiences has provided some rich and detailed results. The current study aimed to explore older adolescent sense-making of their engagement with mental health service experiences, barriers and facilitators, in order to contribute to a sparse understanding. Research questions were:

- What is the 16 to 18-year-old understanding of their experience of engaging in mental health services?
- What is their understanding of their experience of engagement facilitators and engagement barriers?

Method: Ten 16 to 18 years olds were recruited from two London-based Child and Adolescent Mental Health Services. Each young person was interviewed in order to understand their personal experience of engaging in mental health services, and associated engagement barriers and facilitators. Interviews were transcribed and underwent Interpretative Phenomenological Analysis.

Results: Analysis revealed twelve subthemes subsumed within five superordinate themes: engagement begins at help seeking, strength of inner resolve, evolution of the self, in the clinic room, and, existing within service walls: physical and policy-based boundaries. The interaction between theme is explored.

Conclusions: Conclusions are drawn in relation to previous theory and research. When considering 16-18 year understandings of the engagement phenomena, key elements include: clinician and service developmental appropriateness, negotiation of developmental tasks in relation to engagement, experience of the physical building environment, and awareness of service policy. Suggestions for clinical practice in relation to engagement facilitators and threat are made, and recommendations for future research proposed.



### 2597 - Transformation in the Dutch health system organisation from the perspective of Youth Team professionals.

Janna Eilander Curium-LUMC

#### Objective

Since January 2015, in the Netherlands, all care for children until age 18, including child psychiatry, is the responsibility of local communities. In order to optimise the entrance to care and to offer care close by families, local area teams, also called Youth Teams, have been created in most communities. The main goal of the Youth Teams is to support families in their self-management and provide customised help and support at an earlier stage. Five transformation goals are formulated that the teams need to accomplish.

### Transformation goals

- Improve prevention and strengthen the responsibility and capacities families and their social network.
- Strengthen the pedagogical climate.
- Offer earlier and customised care to reduce the cost of specialised care.
- Organise integrated care to families.
- Reduce pressure on and increase trust in professionals.

The Academic Workplace 'Gezin aan Zet' aims to support the Youth Teams in achieving these transformation goals, through developing a self-evaluation cycle, as an instrument to collect feedback, reflect and improve competencies of the Youth Team professionals. An inventory of effective and non-effective factors of the transformation will be made.

#### Methods

The project is based on action research, a research method that simultaneously aims to gain knowledge, while similarly directly changing or improving situations. Data is collected through qualitative and quantitative research methods, including semi-structured interviews, observations and a questionnaire.

#### (Future) Results

- Knowledge of effective and non-effective factors of the youth teams, in relation to transformation goals to be achieved.
- Implementation of a self-evaluation cycle for the youth teams to increase their self-learning and managing abilities.
- Education modules for (future) professionals based on the findings from the first two results.

#### Conclusion

The focus of this project correspondents to the main topic of the 17th ESCAP Congress, transition and the organisational aspects of the transition in the child and adolescent mental health care, and will connect to the topic introduced by State of the Art speaker Prof. Dr. R.

Vermeiren. The main focus of the presentation of the Academic Workplace 'Gezin aan Zet' will be on the meaning of the transformation goals and the new role of the professional in the Netherlands. Effective and non-effective factors of the transformation goals experienced by the Youth Team professionals will be discussed.



2778 - How can we provide better support to children whose parents are hospitalized in a psychiatric ward? /Comment mieux prendre en compte les enfants de patients suivis dans un service de psychiatrie adulte ?

Charlène Tripalo Centre Hospitalier Universitaire Vaudois (CHUV)

Observation: Professionals working in psychiatric wards are often asked to address the worries of patient's relatives. We can observe that the children of patients are those most particularly exposed to their parents' suffering, but that they are not yet sufficiently supported by those caring for their parents. Increased health risks to children, exposed to their parents mental health problems, have been clearly demonstrated. Further, parents have very few opportunities to share their concerns about their parenting.

Approach: Since 2015, a pilot has been conducted in the CHUV (University Hospital of Vaud) general psychiatric ward in Lausanne. This pilot concerns the reception and integration of the patients' relatives, both adults and children. Within this institutional pilot, a survey has been conducted to determine how many children have a parent being followed due to a psychiatric disorder. A multidisciplinary working group was then created to brainstorm about what could be done to support the children better and to help the parents with their parenting.

Objectives: Raise the awareness of the psychiatric professionals for adults about the issues of patients children and take into account the patient's parental responsibilities, independent of their proposed treatment.

Results: The survey showed that about 30% of patients undergoing a treatment within the CHUV general psychiatric ward are parents. Meaning that more than 300 children are concerned. The working group identified 4 approaches: 1) Raising of awareness amongst psychiatric professionals about patients parental roles; 2) Creation of a room dedicated to families with young children; 3) Implementation of a group as an exchange point to discuss parenthood for the patients; 4) Reinforcement of inter-professional collaborations with partners providing support for children and parents.

Conclusion: This project involves a significant aspect of public health issue prevention. It is essential to lead the professionals of both child and adult care into a progressive change of their practices. We observed that it's extremely important that these changes are supported by the hierarchy of the institution and that the whole process of reflection must actively involve, from the beginning, the psychiatric staff in the field. This presentation will outline several examples of interventions that were targeted according to in-patient or out-patient treatments.



### 3469 - PERCIVAL project: Italian adaptation of Intensive Outreach Teams for the treatment of psychiatric emergencies in adolescence

Dr. Silvia Perinetti Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, ITaly

Rationale: Because of the increasing number of adolescence "psychiatric emergencies" with a raising number of hospitalizations and finally in costs for mental health "PERCIVAL" project is conceived to guarantee appropriateness of care for acute psychiatric adolescent patients and families, to offer a prompt response through an intensive pathway of care that may act in different setting as an alternative to ordinary hospitalization and to prevent residential care. It is based on modified international paradigm of Intensive Outreach Teams— IOT.

Methods: Target population: adolescents (12-18 yrs) with psychiatric symptoms in the I and II Rosenn and Gail classification. The psychiatric evaluation and the intervention are conducted by a multiprofessional team (child and adolescent neuropsychiatrists, psychologists, social workers, professional educator experts). Treatment goals are differentiated according to the clinical stage (acute and post-acute), focused on adolescent's and caregiver's needs and strengths and shared with them.

The intervention includes 4 stages: 1) 2-4weeks: A) assessment: A1) Diagnostic assessment (HoNOSCA, CBCL, DSM-5 Self-Rated L1 C-CSM; PID-5, DERS-A, BIS11); A2) Risk assessment (Suicide Screen, CSSRS, BVC, RTSHIA); A3) global and family functioning (C-GAS, CGI, Score15, SIPA); A4) quality of life (PEDS QL, WHO QoL). The CANS communimetric tool and its related versions (Crisis Assessment Tool-CAT) are used to plan the intervention and evaluate and monitor the treatment outcomes B) crisis plan and crisis intervention; 2) 4-20 weeks: multidisciplinary treatment in outpatient, home and/or community context with different levels of intensity (high 5-7 treatments/week; medium 2-3 treatments/week; low 1-2 treatments/week). It includes DBT-oriented psychotherapeutic individual treatment and/or skills training group, focusing on emotional disregulation associated with suicidal and disrupted behaviors/self-harming; outreach approach reinforces the daily implementation and customization skills in different context of life through professional educators intervention 3) 2-4 weeks: transition to the local healthcare service 4) Follow up at 12 months.

Conclusions: "PERCIVAL" is an innovative project that aims to test the applicability, cost, sustainability and effectiveness of outreach approach in the Italian context and in adolescent population. Moreover, the project is testing the application of a DBT model for psychiatric acute in adolescence.



# 2451 - Cross-sectoral collaboration in care for adolescent girls with Multiple and Complex Needs

Dr. Helena Van den Steene University of Antwerp

Objectives: This mixed models study of a cross-sectoral care delivery project for adolescent girls with Multiple and Complex Problems (MCP), based on intensive collaboration between child psychiatry and child welfare services, aims to concretise 'MCP' in Child and Adolescent Psychiatry through description of population characteristics and care trajectories and to optimise collaborative care provision for youth with MCP by identifying its key elements. This is a necessity because available care delivery often fails to meet the needs of the growing population of youth with MCP, who suffer far-reaching consequences for their development and wellbeing, challenge care delivery organisation, and yield a high societal cost.

Methods: Quantitative (file analysis, questionnaires) and qualitative (focus groups, interviews) methods are used in this participatory action research for characterisation of the population, description of the care trajectories and evaluation of the cross-sectoral collaboration, from the perspectives of clients (youths and their key relatives) and professionals involved.

Results: Preliminary quantitative results regarding the population illustrate an interplay of vulnerabilities and problems in biological, psychological and socio-contextual domains and highlight the complexity of care trajectories. Professionals stress the importance of intensive collaboration (shared vision, shared responsibility, synergy) between Child and Adolescent Psychiatry and Child Welfare and a patient-centred focus.

Conclusion: The preliminary results provide insight into the characteristics of these adolescent girls with multiple and complex problems and the key practices in the cross-sectoral networks of care delivery set in place by this collaboration project. They illustrate the importance of transitioning from classical care organisation to a patient-centred, intensive collaboration in order to optimise care delivery for adolescent girls with multiple and complex problems.



2742 - HIV-disclosure to HIV-infected adolescents in the transition to adulthood in West and Central Africa: perspectives of caregivers, health care providers and HIV-infected adolescents.

Dr. Désiré Dahourou Centre Muraz

Background: Adolescents living with HIV (ALH) surviving thanks to antiretroviral therapy must learn to live with this chronic infection. The disclosure of their HIV status is the key for coping with treatments during transition to adulthood. Still, disclosure poses challenges to health care teams and literature suggests relatively late disclosure in sub-Saharan Africa. We report the attitudes and practices of health workers involved in the disclosure process to ALH in a network including West and Central African countries, and confront these to the experiences of youth expert patients.

Methods: We organized a 3-day workshop in Abidjan, Côte d'Ivoire with 40 staff members (doctors, psychologists, counselors) from French speaking African countries. Involved in HIV disclosure in their practice, participants shared their guidelines and practices (moment of disclosure, proceeding, staff involved in the disclosure process). Four adolescents/young adults living with HIV shared their experience with the disclosure process.

Results: overall, 35 participants from eight African countries (Benin, Burkina Faso, Côte d'Ivoire, Cameroon, Mali, Democratic Republic of Congo, Senegal, Togo), representing 17 clinical centers with expertise on pediatric HIV care attended the workshop: 14 physicians, 8 psychologists, 6 counselors, 4 youth, and 3 social workers. Various practices and a relatively late age of disclosure were reported for all centers: 34% of the adolescents aged between 10 and 12 had a full disclosure (N=1296, range: 0%-93%) compared to 76% of the adolescents aged between 13 and 19 years (N=2132, range: 23%-100%). The median age of full disclosure was 13 years ranging from 11 to 15 years. Different practices of disclosure were reported, some of them involving adolescent peers or using group sessions. The four patient-experts attending to the meeting advocated for early disclosure, estimating that the disclosure process should start at the age of 10 years.

Discussion: HIV disclosure to adolescents is challenging for both health care worker and parents, and early disclosure remains infrequent due to multiple obstacles. Still, earlier disclosure processes is expected to smoothen the transition to adulthood and to promote empowerment of adolescents living with HIV. During the meeting, a first step to the elaboration of consensual guidelines for a good practice was realized in order to enhance earlier and better adapted disclosure processes.



### 2391 - Genetic links between autism and atopic diseases

Dr. Ping-I (Daniel) Lin Karlstad University

Individuals with autism spectrum disorder (ASD) might have a higher risk of atopic diseases. Previous evidence suggests immune dysregulation may play a role in the link between ASD and atopy. In this study, we searched for 16 million PubMed abstracts to extract lists of shared risk genes for ASD and four pediatric/onset atopic diseases: diseases: asthma, eczema, allergic rhinitis, and rhinoconjunctivitis. To explore how the shared risk genes might contribute to each disease entity, we have implemented a series of statistical approaches as follows. First, we calculated the inclusion index to show the ratio of overlapped genes between ASD and four pediatric-onset atopic diseases compared to the ASD-related gene set. The inclusion index could indicate the relative contribution of overlapped genes to the etiologies of ASD. Second, we assessed whether overlapped genes were over-represented in ASD-related gene networks by using hypergeometric tests. Further, we searched for functional ontologies of these overlapped genes by using the gene ontology enrichment analysis. The inclusion indexes for all four of the "ASD-atopic disease" pairs were 2%~32%. We found more shared networks than expected by chance alone, particularly for the overlapped genes across ASD and asthma (p-values = 4.03 x10e-35) and the overlapped genes between ASD and eczema (p-value =  $2.15 \times 10e-12$ ). Furthermore, the results reveal that the overlapped genes for ASD and asthma were statistically significantly over-represented in several pathways, in which the endogenous cannabinoid signaling pathway (p-value = 1.4 x 10e-3) may act as the major hub to connect other associated pathways. The overlapped genes for ASD and eczema were significantly over-represented in several other pathways, in which the serotonergic synapse-related pathay (4.57 x 10e-8) and IL3 (interleukin 3)-related pathway (6.38 x 10e-8) may act as the major hubs to connect other pathways. The results suggest that novel gene networks may play a role in the comorbidity between ASD and other atopic diseases - in addition to well-documented immune-related pathways. An improved understanding of these shared gene networks could provide valuable insights into the causal pleiotropic genetic effects that may contribute to comorbidity between ASD and atopy. The follow-up validation research may pave the way for the discovery of novel therapeutic targets for ASD.



# 2393 - The Autism Discriminative Tool: when ASD screening is adapted to DSM-5 criterias and school settings

sophie carlier Hopital Universitaire des Enfants Reine Fabiola

#### Abstract

Objective: The study describes the validation of the Autism Discriminative Tool, a new level II autism screening instrument. The ADT is the first stage-2 screening device to be in line with current DSM-5 criteria for ASD. It also allows information gathering from school settings whilst remaining scored and interpreted by a child specialist.

Method: Screening items were tested in a normative sample (n= 118) and a clinical population of children with ASD (n=90) versus other developmental disorders (n=36). Both clinical groups were screened via the ADT by their teacher at the beginning of their diagnostic assessment process within an autism specialised clinic.

Results: Results suggest that the full 35-item version of the ADT constitutes an informative clinical repertoire whilst a shortened 26-item version performs well as a second level screening tool. Sensitivity rate was reported to be 0.83, with specificity of .94 and an overall correct detection rate of 86.5%.

Conclusion: The ADT appears as a good complementary device to help child'specialists decide those in need of an ASD diagnostic assessment. Its high rate of specificity should ensure a reduction in false positive cases, therefore improving adequacy of referrals to tertiary autism diagnostic services.



### 2467 - The relationship of parental expressed emotion to co-occurring psychopathology in adolescents with autism spectrum disorder

Dr. Marina Romero González King College London

#### Introduction:

In an effort to identify characteristics of the family environment that may influence the course of co-occurring psychiatric disorders in children with autism spectrum disorders (ASD), researchers have explored the phenomenon of expressed emotion (EE). EE is a construct of the affective relationship between two people, with domains characterised by criticism, warmth, relationship and emotional over-involvement.

### Method:

The current study explored the cross-sectional association between EE in families of adolescents with ASD and co-occurring psychiatric symptoms.

Data in the current study are drawn from a longitudinal study of children/adolescents who were first seen at age 4-8 years as part of a study of problematic behaviour in ASD. The sample was originally drawn from two London community health services and included those in whom a clinical diagnosis of ASD was made by age 4. The sample was originally divided to provide a sample for intensive investigation in which girls were over-represented by inviting all to participate and boys were randomly selected on the basis of age, IQ and autism symptoms. The current study focused on the intensive subsample, a sample of 101 adolescent seen at age 10-14 years at that time. Parental expressed emotion was measured using Autism-Specify Five Minutes Sample Speech and co-occurring disorders using Developmental Behaviour Checklist and Strength and Difficulties Questionnaire.

#### Results:

The participation was in a moderate rate of 63 at this time. It was found that high levels of EE and/or critical comments were both associated with both behavioural problems and hyperactivity (ADHD) symptoms. However, there was no association between EE and emotional disorders.

#### Conclusions:

The current study adds evidence to both the autism and expressed emotion literature, as it is the first known study focus on a community-based sample of adolescents with ASD that look at the relation between parental expressed emotion and co-occurring mental health problems. The association with behavioural problems has been reported in previous studies; however no previous studies have explored the relationship to ADHD symptoms. We concluded that subsequent longitudinal investigations are very important to identify whether there are causal implications in these associations.

Keywords: autism spectrum disorder, expressed emotion, psychopathology, hyperactivity, child behavioural problems.



# 3291 - Are Sensory regulation disorders specific or discriminant for children with autism spectrum disorder (A.S.D.)?

PhD Paule Philippe CHU Université de Liège BELGIUM

#### Objectives.

Our study explores if sensory regulation disorders are specific and discrimant in autism spectrum disorder (Criteria B4 DSM V). We are exploring children sensory peculiarities among 4 groups: typical autism and atypical autism in ASD, psychosis spectrum, "other diagnoses". Method.

The Dunn's sensory profile (175 items) is filled out with the caregivers. An analytical assessment provides different scores that are compared to a control group Results.

- 1)Diagnoses and comorbidity: our population (124 children 5 -12 years old) includes 20 typical autism, 6 atypical autism; among 98 children not diagnosed ASD, 65 present the clinical symptoms of psychosis and 33 other diagnoses.
- 2) Comorbidity is significantly different between autism group and psychosis group. Speech delay (p<0.0001), motor developmental delay (p=0.011), mental deficiency (p=0.0018), learning disability (p=0.023) are more frequent in the autism group. In contrast, anxiety disorders (p<0.0001), mood disorders (p=0.0018) and attention disorders (p<0.0001) are more frequent in the psychosis group.
- 3) The scores for different factors which combine items focused on the same capacity, differ from the control group. The factor Inattention/Distraction is lower in typical autism (p=0.0047), atypical autism (p=0.0059) and psychosis (p=0.0006). The factor Emotional Reaction is lower in autism (p=0.0064) and psychosis (p<0.0001). The factor Low Recording (which represents the understanding of the nonverbal language and the carried attention to the environment) is lower in autism (p=0.015). The factor Oral Sensory Sensitivity is lower in atypical autism (p=0.0014).
- 4) Age effect: these differences with the control group increase in a significant way as the children grow older. So, Emotional Reaction, Low Endurance and Low Muscular Tone, Inattention/ Distraction intensify with age. On the contrary, Fine Motor Skills improve with age as well as Sensory Research in the autism group.

Conclusion. Our research confirms — as common known- the high incidence of sensory regulation disorders with the children presenting an autism spectrum disorder; but our results show that this high incidence is also observed among psychotic children. On the contrary, the sensory regulation disorders are rare in case of isolated mental retardation, simple developmental delay, cerebellar syndrome, Down's Syndrome...



#### 3404 - RESEARCH ON ALLERGIC DISEASES IN AUTISTIC CHILDREN

Dr. Mahmut Cakır

#### Objective

The objective of this study is to find out the presence of Cumulative Allergic Disease (AD), Bronchial Asthma (BA), Allergic Rhinitis (AR), Atopic Dermatitis (ATD) and Food Allergy FA) in autistic children, to assess the presence of allergy associated with autism through allergic mediators, especially IL-25 and allergic skin sensitization, and to research the association between autism clinical severity and ADs, allergic skin sensitization and allergic mediators. Methods

This study was conducted between September 2012 and March 2014. The sample of the study consisted of a patient group of 40 boys and girls diagnosed with 'Autistic Disorder' according to DSM-IV diagnostic criteria who were admitted to and followed at Ondokuz Mayls University Health Application and Research Centre Child and Adolescent Psychiatry Polyclinic and a healthy control group of 40 who were age and gender matched with the patient group. Childhood Autism Rating Scale (CARS) was applied on autistic cases to find out the severity of autism. Sociodemographic Data Form and International Study of Asthma and Allergy in Childhood (ISAAC) questionnaire were given to all the participants. Skin prick test was applied on all the cases with the most frequently met 10 allergens.

In all the cases, AD diagnosis was made by two independent, experienced Pediatric Allergy Specialists. Serum IgE, Total Eosinophile Count (TEC) and IL-25 were worked in all the cases. Statistical significance level was p<0.05 for all tests.

#### Results

While the cumulative AD rate was found to be higher in the patient group than that of the control group, the frequency of specific allergic diseases such as BA, AR, ATD and FA was not found to be different in either group. In autistic children, mite skin sensitization was found to be higher than the controls, however, total allergen skin sensitization was not found to be different. In the autistic group, TES and IL-25 values were significantly higher when compared with the control group; however, there was no difference between the groups in terms of IgE levels. Cases with severe autism clinic had higher total allergen and mite skin sensitization when compared with mild-moderate cases.

Patients with severe autism had obviously higher serum IgE, TES and IL-25 levels than those with mild-moderate autism and autism clinic severity was found to be associated with all the allergic mediators studied.

In conclusion, our results supported the association between autism and allergy.



### 2644 - Incontinence, psychological problems and parental stress in children and adolescents with Autism Spectrum Disorder

Justine Niemczyk Saarland University Hospital

#### Introduction:

Autism spectrum disorder (ASD) is defined by persistent deficits in reciprocal social interaction, communication and language, as well as stereotyped and repetitive behavior. Children with ASD have higher rates of incontinence and gastrointestinal tract symptoms. Parents of children with ASD show more parental stress and psychological symptoms. The aim was to examine incontinence in children/adolescents with ASD as well as stress and psychopathological symptoms in their parents.

#### Methods:

Data of 51 children (43 boys, mean age =9.7 years), consecutively presented in an outpatient clinic for autism, as well as 53 matched continent controls (43 boys, mean age = 10.2 years) are presented. All patients and their parents underwent the Autism Diagnostic Observation Schedule (ADOS) and the Autism Diagnostic Interview-Revised (ADI-R). All children received sonography (rectum, bladder), uroflowmetry, bladder diary, physical examination, IQ test, parental psychiatric interview and a questionnaire regarding incontinence and psychological symptoms (CBCL). Additionally, parents filled out the Social Communication Questionnaire (SCQ), Adult Self Report (ASR) and a questionnaire on parental stress (ESF).

#### Results:

The patient group had significantly higher rates of incontinence than controls (nocturnal enuresis 16%, daytime urinary incontinence 14.3%, fecal incontinence 8.2% in children with ASD vs. 0% in controls). Children with ASD showed significantly more pathological uroflow-patterns and more urge symptoms than controls. Children with ASD had significantly higher CBCL- and SCQ-scores as well as a significantly lower IQ. Parental stress was significantly higher in parents of children with autism, but they did not show more psychopathological problems than the parents of controls.

#### Conclusion:

Children with ASD have higher rates of incontinence, lower urinary tract symptoms, as well as psychopathological problems. Parents of children with ASD experience more stress. Screening, assessment and treatment of incontinence in children with ASD are recommended.



# 2496 - Social integration and substance use: assessing the effetcs of an early intervention programme for youth

Dr. line guillod CHUV, Département de Psychiatrie

Aim: Appropriate social integration has been shown to be a protective factor against substance use among adolescents and associated negative consequences. Promoting social integration through early intervention with adolescents using substances is thus necessary and is the aim of the Identification, Assessment and Follow-up of Adolescents with SubstanceUse (in French, Dépistage - évaluation - parrainage d'adolescents consommateurs de substances (DEPART) programme. The present study aimed to describe this programme and its participants from 2009 to 2013 as well as to assess its effects on social integration. Methods: Data from 398 adolescents using substances who attended the DEPART programme were analysed. Results: The results showed that almost 80% of the adolescents admitted to the DEPART programme were boys, with a large proportion using cannabis. Globally, social integration did not increase from admission to discharge from the programme, but a shift was observed for school and professional integration. Additionally, after the intervention, we observed that social integration was more important in younger patients. Conclusions: This study showed that adolescents with problematic substance usemostly consumed soft drugs and that those who were integrated into the DEPART programme at a younger age were more likely to be socially integrated at the end of the

programme.



# 2503 - Safety and efficacy outcomes in age subgroups from a 2-year study of lisdexamfetamine dimesylate in children and adolescents with ADHD

Tobias Banaschewski University of Heidelberg

#### Objective

Treatment goals for individuals with attention-deficit/hyperactivity disorder (ADHD) include the long-term management of symptoms in parallel with good tolerability. Here we evaluate the safety and efficacy of lisdexamfetamine dimesylate (LDX) in children and adolescents with ADHD over the course of a 2-year clinical study (SPD489-404).

#### Methods

Participants (children, 6–12 years; adolescents, 13–17 years) received dose-optimized, open-label LDX (30, 50, 70 mg/day) for 104 weeks (dose optimization, 4 weeks; dose maintenance, 100 weeks). Long-term safety was assessed as the primary study objective, with evaluations including the monitoring of treatment-emergent adverse events (TEAEs). The secondary objective was assessment of the long-term efficacy of LDX using the ADHD Rating Scale IV (ADHD-RS-IV) and Clinical Global Impressions-Improvement (CGI-I; improvement defined as a score of 1 or 2).

#### Results

Of 314 patients enrolled, 314 were included in the safety population and 299 in the full analysis set (FAS), and 191 completed the study. TEAEs were reported in 282/314 participants (89.8%), led to discontinuation in 39/314 (12.4%) and were reported as serious in 28/314 (8.9%). In the safety population, TEAEs reported in ≥10.0% of participants were decreased appetite, nasopharyngitis, headache, weight decreased, insomnia, initial insomnia, irritability and pyrexia. When categorized by age, TEAEs were reported in similar proportions of children (181/202 [89.6%]) and adolescents (101/112 [90.2%]). The mean change from baseline to last ontreatment assessment (LOTA) in ADHD-RS-IV total score was −25.8 (95% confidence interval; −27.0, −24.5) in the FAS and −26.3

(-27.9, -24.6) and -24.9 (-26.9, -23.0) in the child (n=189) and adolescent (n=110) subgroups, respectively; all p<0.001. The percentage of participants with CGI-I scores of 1 or 2 at LOTA was 77.9% in the FAS, 78.8% in children and 76.4% in adolescents.

#### Conclusions

Similar proportions of children and adolescents experienced TEAEs in this 2-year, open-label study of LDX, and these findings were consistent with those reported in previous LDX studies. LDX treatment for up to 2 years was associated with similar symptomatic improvements from baseline to LOTA in both children and adolescents with ADHD.

Study funded by Shire Development LLC.



### 2655 - Long-term safety of guanfacine extended release in children and adolescents with ADHD

Prof. Dr. Michael Huss

#### **Objectives**

To assess the long-term safety and efficacy of GXR in subgroups of children (6–12 years) and adolescents (13–18 years) with ADHD in study SPD503-318.

Methods

SPD503-318 was a phase 3, single-arm, open-label extension study for European participants of GXR trials SPD503-315 and SPD503-316. Participants received dose-optimized GXR for up to 2 years (maximum permitted dose: children, 4 mg/day; adolescents, 4–7 mg/day depending on weight).

#### Results

Of 215 enrolled participants, 214 were included in the safety population (131 children, 83 adolescents) and 133 completed the study (79 children and 54 adolescents). At baseline, there were more males among both children and adolescents (80.2% of children, 63.9% of adolescents) and symptom severity was worse in children than in adolescents (mean ADHD Rating Scale-IV [ADHD-RS-IV] total score of 40.1 compared with 31.4). Prior to taper, mean daily exposure was 3.2 mg (0.073 mg/kg) in children and 4.3 mg (0.067 mg/kg) in adolescents. Over the 2-year study, the frequencies of treatment-emergent adverse events (TEAEs) were similar in children (84.7%) and adolescents (79.5%). In both age groups, TEAEs reported in >10% of participants were somnolence, headache and fatigue. The frequencies of serious TEAEs and TEAEs leading to early termination were low in both age groups (<7% of participants). There were no deaths. Mean height z-scores were similar across age groups at baseline, but mean z-scores were qualitatively higher for adolescents than for children at final assessment. In both age groups, mean z-scores for weight and BMI were stable throughout the dosemaintenance period, although mean z-scores for BMI were slightly higher for children than for adolescents throughout the study. At all post-baseline visits, improvements in ADHD-RS-IV total score were similar in both age groups, and at final assessment, mean changes from baseline in ADHD-RS-IV total score were nominally significant in both children (-20.2; p<0.0001) and adolescents (-19.3; p<0.0001).

#### Conclusion

In this subgroup analysis of SPD503-318, GXR was well tolerated in both children and adolescents with ADHD, with a safety profile similar to that observed in previous studies. In both age groups, mean z-scores for height, weight and BMI were stable throughout treatment. ADHD symptom reduction was maintained over the 2-year GXR treatment period and the degree of improvement was similar in both children and adolescents. Study funded by Shire Development LLC



### 2938 - Compulsive Gaming: A new phenomenon in adolescent substance abuse treatment

Dr. Renske Spijkerman Brijder Addiction Care

### Objectives

In the Netherlands, an elevated number of adolescents enter substance abuse treatment because of video gaming addiction. Since assessment and treatment of this type of addictive behavior is still in its infancy, more research is needed on symptoms and characteristics related to problematic gaming. As a first step, we examined baseline characteristics of adolescents and young adults receiving treatment at a large youth addiction care facility in the Netherlands and tested differences between clients seeking help for compulsive gaming versus clients who sought help for substance-related disorders.

#### Methods

Treatment registry data were used of all clients who, in 2015, received at least 1 day of treatment at the youth department of Brijder Addiction Care. A total of 1,078 clients with either compulsive gaming or a substance-related disorder as primary diagnosis were included. In addition, complete Routine Outcome Monitoring data were available for 65% of the sample (n=705) which included clinical and demographic characteristics and self-reported psychosocial problems (Strengths and Difficulties Questionnaire, SDQ) at beginning of treatment. Data on self-reported quality of life based on the Kid Screen-27 were available for 43% of the sample (n=464). Differences between clients with compulsive gaming and those with substance-related disorders were examined with Chi-Square tests, T-tests and multivariate logistic regression analyses.

#### Results

Compulsive gamers were more likely to be male, younger, higher educated and living with parents, than clients with substance-related disorders. Although both client groups showed high rates of co-morbid disorders, compulsive gamers were more likely to show pervasive developmental disorders but less likely to show ADHD, mood disorders, and conduct disorders than their counterparts with substance-related disorders. Results based on the SDQ and Kidscreen suggested that, at beginning of treatment, both groups reported high levels of psychosocial problems and low quality of life. However, compulsive gamers reported less emotional problems, ADHD and behavior problems and were more positive about their psychological well-being than clients with substance-related disorders.

#### Conclusion

Clients in treatment for compulsive gaming at a youth addiction care facility showed different demographic and clinical characteristics than their counterparts with substance-related disorders. Implications of these findings will be discussed.



### 2822 - Alcohol use among adolescents

Prof. Dr. Sladjana Dragisic Labas Faculty of Philosophy, University of Belgrade

Introduction: Alcohol use and alcohol abuse among adolescents and young people is a serious social and public health problem, particularly in developing countries.

The aim of this study was to obtain the data regarding alcohol consumption among adolescents. We surveyed the initiation, frequency, quantity and type of alcohol consumed. It was also important to examine the situations in which young people drink, their beliefs about the effects of alcohol and the reasons for alcohol consumption.

Method: The sample consisted of 232 adolescents (146 boys and 86 girls) aged 14 to 18 who attend primary and secondary school. A questionnaire, which consisted of 26 questions was designed especially for this study. The obtained data were processed in the statistical SPSS program.

Results: The age of the first contact with alcohol among the largest number of adolescents was between 14 and 16 (47%) and from 10 to 13 (35.3%). The younger adolescents report having consumed their first drink at home (offered by the father or other family member), whereas the first drinking experience of the older respondents involves other social contexts. The current drinking rates among adolescents are 93.8%, of which 91.5% girls and 95.1% boys. The majority reported drinking several times a month and once a month (57%). Two to three drinks on one occasion drink 40.5%, and more than four drinks 20.9%. Beer is the most common choice (29.4%), followed by wine (18.6%) and strong alcoholic beverages (19.1%). Alcohol is mostly drunk at parties (52.9%) and birthdays (32.2%). A number of respondents reported not drinking when in the company of non-drinkers (53%). Most of respondents drink to relax (40.9%), to accommodate "better" communication or to avoid facing problems. Only 20.5% believe that alcohol has no positive effects. 80.1% consider themselves sufficiently informed about alcoholism, and 76.3% would like to attend lectures on substance abuse.

Conclusion: Alcohol consumption in Serbia is widely accepted social behavior and a part of the tradition, customs and culture. The data on the frequency and intensity of drinking showed no significant gender differences indicating that the current trend of much greater representation of consumption in the male population changes. We believe that it is necessary to create and organize an early educational guidance that could contribute to alcohol abuse prevention.



4483 - Transitioning towards official clinical guidelines for the diagnostics and treatment of severe behavioural problems in children across Europe: current state and future directions.

PhD Alexandra-Raluca Gatej Curium-LUMC

Objectives: Over the last decade, clinical practice guidelines for diagnosing and treating severe behavioural problems (SBPs) in children have been developed around Europe as an important tool. First, they would help coordination of care across the multiple agencies that need to be involved in the management of children with SBPs. Second, they would assist health and nonspecialist health, social care, and educational services in choosing interventions supported as efficacious. This study provides an overview of experts' perspectives on the current prevalence and implementation of clinical guidelines for SBPs in children across Europe. Additionally, it discusses the pros and cons for further developing national and/or European clinical guidelines for this group. Methods: An online semi-structured interview was completed by 28 academic experts from 23 countries. Results: One third of the European countries included have developed official clinical guidelines for SBPs, and just over a half have at least some unofficial documents. Although the content of guidelines was perceived as beneficial for daily practice, experts called for more specific recommendations, including severe aggression management, legal and forensic aspects, to better cater for real-life practice demands. Additionally, their implementation was described as one of the most salient challenges at present. Similarly, unofficial documents were considered useful for clinicians, but experts stressed the need for change towards more comprehensive evidence-based clinical practices, by means of developing national and particularly European clinical guidelines for SBPs. Such guidelines were believed to increase accessibility to evidence-based and early intervention, harmonise practices and provide a shared understanding of SBPs. Conclusions: Based on the consensus on the need for developing official guidelines reached by experts, this study creates an appropriate momentum for a transition towards European clinical practice guidelines for this population. Such guidelines would facilitate cross-disciplinary collaboration both within and between countries. Increasing global exchange may further stress the prioritization of SBPs and reinforce implementation of guidelines in practice. Moreover, joining efforts could also reduce costs, time, and resources required for the creation of national guidelines, all of these tackling the current barriers encountered by professionals when treating these children.



### 2431 - 'Who am I?' How female care-leavers construct and make sense of their identity.

Dr. Alexander Hassett Canterbury Christ Church University

Objectives: Identity formation may be more complex for those who have been in foster care in the face of childhood abuse and trauma, difficult relationships, unstable environments and multiple care contexts but this does not imply there is anything pathological about it. Given the higher levels of mental health difficulties in looked after children and the known role identity has in mental health, whether as a risk or a protective factor, it seems clinically significant to investigate what factors help construct or hinder the formation of identity for those who have been in care. The aim of this research was to explore how female care leavers make sense of their identity development.

Method: Interpretative Phenomenological Analysis was used to analyse semi-structured interviews of eight female care-leavers about the understanding of their identity development. Results: Whilst the journey for each participant was unique, three superordinate themes emerged from the data which reflected the process and outcome of identity development. The outcome of identity development highlighted two dimensions; 1) how individuals saw themselves and 2) how their identity played out practically day-to-day. Three superordinate themes emerged which encapsulated participants' identity development. These included Construction of identity — How I became me, Understanding of identity — Who am I and Experience of identity — How my identity plays out. A model highlighting the interactional nature of the superordinate themes on identity was developed.

Conclusions: Participants' construction of identity can be understood in the context of early adverse environments and developmental trauma. This construction of self, in turn mediates how participants understand and experience their identity. Findings were discussed in relation to previous research and limitations were outlined. Implications for future research included giving fuller consideration to the role of developmental trauma in identity formation. Clinical implications encourage understanding of looked after children and care-leavers in the context of developmental trauma, rather than focusing on symptoms of various diagnoses.



# 2593 - Lost in Transition? Experiences from young people with mental health problems concerning transfer from child to adult care in Germany: A qualitative study

PhD Sabine Loos

Klinik für Psychiatrie und Psychotherapie II Universität Ulm am Bezirkskrankenhaus Günzburg

Objectives: Young people with mental health problems facing transition from child and adolescent to adult health care are less likely to utilise care after reaching the age of 18. The aims of the study are to investigate perceptions and evaluations of health care during the period of transition from the young patients' view, with a special focus on identifying health care needs and determinants of health behaviour.

Methods: 29 young people, aged 16 to 25 years, participated in seven group discussions and three interviews based on interview guides. Data were transcribed verbatim and analysed following a sequenced, reconstructive approach of the documentary method by Bohnsack. Results: Lack of perceived humanity in care was the main theme reported by young people. Further predominant subthemes were being dependent on the health care system, being treated as an object rather than a person, and a role conflict as a patient (ideal of care vs. reality). Participants expressed a number of needs in relation to care provision: closeness, increased participation and involvement in treatment, and a greater variety of care offers. Stigma and passive coping were identified as hindering effective treatment.

Discussion: Implications for clinical health care provision and interventions in this age group in conjunction with care providers' experiences are considered. Needs-oriented care and strengthening health literacy in this age group are possible approaches.



### 2638 - Transition psychiatry into practice: Mental health care trajectories of young patients (12-26 years)

Dr. Evelien van der Schee Brijder Addiction Care

#### **Objectives**

One of the challenges of treating adolescents and young adults in mental health care involves the transition of patients from adolescent to adult care. In this present study, we examine mental health care trajectories of young patients in a large mental health care organisation, which provides a wide range of mental health care for children, adolescents and adults. Trajectories of patients from adolescent to young adulthood were studied. Additionally, we analysed how these trajectories are related to patient characteristics, such as gender, age, clinical diagnoses.

#### Methods

We studied a cohort of patients (aged 12 to 26 years) who entered a mental health care in the Netherlands between 2011 and 2015. We studied patient trajectories by inspecting the number of admissions, type of mental health care facilities visited and days in treatment. We particularly focussed on how patients went from adolescent to adult mental health care within the organisation.

#### Results

Between 2011 and 2015 69968 patients, aged 12 and 26 years, entered a treatment facility in the organisation. Their mean age at entrance was 20 (SD 4.1) and 53.4% of them were female. In total, they were admitted 84840 times, of which 82.8% once, 14.0% two and 3.2% three to nine times. During their admission, patients received treatment at one to eleven treatment facilities, with the majority receiving treatment in one facility (67.5%). Mean number of treatment days was 414.9 days (SD=411.3), with younger patients being treated significantly longer compared to the older ones. About 34% of the patients turned 18 years or older and made the transition to adult care.

#### Conclusion

We studied mental health care trajectories of young patients to provide insight in potential weaknesses of our mental health care system with regard to continuity of care. Our preliminary findings indicate that one third of the patients entering our large mental health care organisation had multiple treatment episodes during the period of 2011-2015 and older patients showed shorter treatment duration. About 34% of the study population should have made the transition from adolescent to adult care. In further analyses, we will examine these transitions in further detail to determine which patients show elevated number of treatment visits and how this might be related to age and transitions from adolescent to adults care.



# 2775 - Psychometric properties of an internet-based version of the Youth Self-Report and differences to paper-pencil assessment

Michael Zeiler Medizinische Universität Wien

Objectives: Internet-based assessments become increasingly popular due to obvious advantages. Achenbach's Youth Self-Report (YSR) is a world-wide used instrument for assessing general psychopathology in children and adolescents aged 11 to 18 years, both in the general population and in clinical samples. Although already used online, the interformat reliability of the YSR has not been investigated so far. Thus, this study aims at examining the psychometric properties of an internet-based (IB) version of the YSR and differences to the original paper-pencil (PP) version.

Methods: Data from a large (N > 3600 students aged 10-18 years) epidemiological study in Austria were used. About 80% completed IB version of the YSR, about 20% completed the original PP version. Interformat differences were analyzed regarding psychometric properties (internal consistencies), further indicators of data quality (e.g. number of missing items, completed open-ended questions) and outcomes (mean total problem score, % in clinically-relevant range). Sociodemographic and school characteristics were included as covariates to account for potential differences between the IB and PP group. Additionally, we explored associations between meta-data (time for completing the IB questionnaire) and the degree of mental health outcomes.

Results: Cronbach Alphas of the IB version ranged between .84 and .94 for the broad-band scales and between .62 and .86 for the syndrome scales. A slightly higher proportion of YSR datasets were analyzable for the IB version (97.7%) compared to the PP version (93.7%). Information provided for open-ended questions were about twice as high in the IB version (M = 35.8 characters, SD = 29.8) compared to the PP version (M = 18.7 characters, SD = 10.6). Mean problem scores did not significantly differ between the versions while there was a slightly higher proportion of students scoring in the deviant range in the PP version (19.6% vs. 15.3%). A low but significant correlation was observed regarding the time needed for completing the IB questionnaire and the YSR total problem score (r = .24).

Conclusion: The used IB version of the YSR was comparable to the original PP version with regard to the psychometric properties and indicators of data quality. The minor differences in the proportion of students scoring in the deviant range might need further investigations. Especially the use of meta-data available in IB assessment might foster future research.



### 3687 - Transition in case of child abuse and neglect: can childpsychiatrists make a difference?

Dr. Marie-José van Hoof iMindU/YOEP Global Transitions/LUMC

### Objectives

- 1 To demonstrate the importance of collaboration in the advocacy against child abuse and neglect.
- 2 To demonstrate the role of child and adolescent psychiatrists in the prevention and treatment of abuse and neglect.
- To give examples of different ways of successfully raising awareness by child psychiatrists for the prevention and treatment of abuse and neglect.

  Methods

Childpsychiatrists and the Dutch Knowledge Center advocated against child abuse and neglect through research, a website for patients and professionals, presentations for professionals, and through advocacy at the political and legal arena. The experts gathered all scientific, legal and practical information about prevention, diagnostic procedures, treatment, and the policies on child abuse and neglect, and made this knowledge base available to the general public worldwide as well as to their professional colleagues (www.kenniscentrum-kjp.nl/). Results

Advocacy addressed the following fields which will be discussed in the oral presentation:

- The Dutch Knowledge Center provides unique opportunities for the dissemination of information and the advocacy of child and adolescent psychiatry by engaging a broad network. Examples will be given about the collaboration with Dutch experts, about the opportunities for advocacy, and about the policies the Center uses to bring together the psychiatric professionals.
- The experts increased professional and societal awareness by informing professionals in the legal, administrative and political field about consequences of legal procedures, and made a plea for finances for the prevention and treatment of abuse and neglect, etc.
- The experts presented as a group on national and international psychiatric conferences about relevant topics concerning e.g. the primary prevention of abuse, screening for safety in families, attachment and trauma, etc.

With the influx of a large number of traumatized refugee children in recent years the importance of trauma-focused approach in the organization of mental health care for this specific population was advocated.

#### Conclusion

Childpsychiatrists can and should proactively advocate against child abuse and neglect using all means possible to reach professionals in politics, ministeries, boroughs and other state-based institutions, insurance companies, schools, youth care and (mental) health care, as well as the wider public.

#### About the author

Marie-José van Hoof, M.D., M.Sc., Ph.D. candidate, is a consulting child and adolescent psychiatrist, specialised in attachment, trauma and child abuse and –neglect on which topics she is finishing her PhD at Curium-LUMC. She is working at her own practice iMindU and at

mental health institute YOEP, specialized in mental health service at (international) schools, combining care and schoolissues, empowering teachers and parents in daily life. She also initiated and since chairs the expert group on trauma & childabuse and –neglect of the Dutch Knowledge Centre Child and Adolescent Psychiatry.



3114 - Associations between Psychotic Like Experiences (PLE) and psychiatric disorders, lack of functionality and history of abuse in the Offspring of Bipolar and Community Families.

Dr. Iria Mendez Institut Clinic de Neurociències, Hospital Clínic i Provincial

INTRODUCTION: The prevalence of psychotic-like experiences (PLE) is higher than expected in younger populations. Recent studies have highlighted their link with psychiatric disorders and the transition to full-blown psychotic disorders.

OBJECTIVE: To study the association between psychiatric disorders and other predictors of PLE in two non-psychotic populations, one at genetic high risk for bipolar disorders (BP) and one from a community sample.

METHOD: PLE were evaluated at intake and during follow-up in a longitudinal cohort study of 390 offspring of BP parents and 247 from the community, ages 6 to 18 years old. PLE were examined using standard psychiatry interviews and questionnaires blind to parental psychiatric status. The sample was followed on an average of 8.3 years, with a 91.7% retention rate. All the analyses were modeled using GLMM.

RESULTS: 95 offspring reported PLE symptoms at some point of the study. There were no significant associations between PLE and family loading for Bipolar or any perinatal risk factors. The presence of any psychiatric disorders increased 10-fold the risk for PLE (OR=9.63, P=0.0001). With the exception of substance abuse disorder, almost all disorders were significant associated with PLE. In the multivariate analyses 3 factors were significant related with the onset of PLE: low psychosocial functioning (OR=6.42; P<0.0001), presence of any major psychiatric disorder (OR=3.46; P<0.01), and history of physical or sexual abuse (OR=2.99; P=0.04).

CONCLUSIONS: The presence of any PLE should be conceptualized as a marker for a major psychiatric disorder, and clearly related with poor functioning and history of abuse.



# SOA1-01: Jointed therapies parents/baby and interactive guidance: a move from a model to another one (differential indications, change factors)

4121 - Jointed therapies parents/baby and interactive guidance: a move from a model to another one (differential indications, change factors); Thérapies conjointes parents/bébé et guidance intaractive: d'un modéle à l'autre - Quoi pour qui, et facteurs de

Prof. Dr. Bernard GOLSE Necker-Enfants Malades Hospital (Paris) and Paris Descartes University (Paris 5)

Early psychotherapeutic interventions called « parent-infant / baby jointed therapies » have developed in three different directions over time: jointed therapies of psychoanalytic inspiration, interactive guidance and attachment therapies.

After recalling the main landmarks of this history of ideas, we will present more precisely the technique called interactive guidance initiated in the US by S. Mc Donough.

In the last part, we will show how, after interactive guidance has been alternatively proposed from a theoretical point of view to psychoanalytic psychotherapies, it is now necessary to think about the transition from one technique to another according to a specific therapeutic indication (what for whom?).



# SOA1-02: Translate latest findings in autism research to clinical practice

### 4126 - Translate latest findings in autism research to clinical practice

Prof. Dr. Marie Schaer University of Geneva

Autism has become a topic of intense research over the last decade, with a burst of published studies covering both clinical and neuroscience topics. Progressively, these studies impact the way we think about autism spectrum disorders (ASD), and the way we diagnose and treat affected individuals. For instance, a large body of clinical research has shown that early and intensive interventions dramatically decrease the social deficits and learning difficulties faced by affected children. Concomitantly, many neuroscience studies have sought to understand why the first three years of life may represent a "window of opportunity" when therapeutic interventions yield the most optimal long-term benefits. Neurosciences studies using techniques such as eyetracking and neuroimaging have started to examine much younger individuals, with the goal to identify predictors of autism, as well as to provide opportunities to improve therapeutic strategies.

In this talk, we will summarize some of the clinical and neuroscience studies that are the most pertinent for the clinicians working with children on the spectrum, with a particular focus on the early development of social cognition in infants, toddlers and preschoolers. We will review our current responses to critical questions in the field, such as: What are the different hypotheses explaining the emergence of ASD? What are the mechanisms by which early intensive intervention affects the brain development? When do the trajectories of brain development start to diverge between healthy children and those who will be later diagnosed with autism? As the autism spectrum is highly heterogeneous, can we distinguish different subgroups that will respond differently to treatment? If the last decade has brought many partial answers to these questions, there is no doubt that the autism field will continue to gather knowledge at an increasing pace, with a tremendous potential to improve the way we care for individuals with ASD.



# SOA1-03: First-episode psychosis in children and adolescents: research advances and opportunities for intervention

# 4129 - First-episode psychosis in children and adolescents: research advances and opportunities for intervention

PD Dr. Carmen Moreno Hospital General Universitario Gregorio Marañón

Objectives: Psychosis starting in childhood and adolescence are neurodevelopmental disorders with pervasive course, challenging diagnosis and poorer prognosis than adult-onset psychosis. Methods: This presentation will review recent advances on early-onset psychotic disorders, focusing on those aspects with special interest for developing therapeutic interventions. Results: Children and adolescents represent a unique opportunity for the study of psychosis, before factors such as psychotropic treatments or illicit drugs, comorbid conditions or relapses may impact illness progression. Mounting evidence suggests the presence of developmental impairment in early-onset psychosis. Premorbid social impairment, childhood trauma and abuse, earlier onset of cannabis use, or childhood psychiatric disorders all increase the risk of early psychosis. Psychosis identification in children and adolescents is challenging, what may have impact on longer duration of untreated illness, one of the main predictors of functional and clinical deterioration, in this population. Study of intermediate mechanisms such as inflammation has also been critical in early-onset psychosis. Recent studies suggest the presence of a sustained higher inflammatory and oxido/nitrosative status of cells in adolescent-onset than in adult-onset psychosis, opening the window for developing new therapeutic interventions. Conclusion: Early-onset psychosis represents a challenging population diagnostic and treatment wise. A parsimonious approach aimed at shortening the gap between illness-onset and treatment implementation and also at early detection of risk states and implementation of developmentally sensitive interventions on risk populations is warranted.



# SOA1-04: Why Child and Adolescent Psychiatrist are repulsed by public health and why they are so wrong

# 4118 - Why Child and Adolescent Psychiatrist are repulsed by public health and why they are so wrong

Professor Bruno Falissard Director of CESP/INSERM U1018 (Centre de Recherche en Epidemiologie et Santé des Populations)

Because public health relies mainly on statistics and because the notion of an average patient or an average family is so far from the real life experience of clinical practice, many child and adolescent psychiatrists are repulsed by public health.

Paradoxically, at the moment, the main determinants of child and adolescent psychiatric care are based on public health considerations. Practices that are "evidence based" or not, that are "cost effective" or not, strategies of prevention that are encouraged or not: all are determined by public health considerations. Even the outline of what should be our job as psychiatrists, psychologists, nurses, etc. comes from the same logic.

There is thus an urgent need of empowerment. Child and adolescent psychiatrists have to engage themselves with lucidity and energy in the field of public health. Because this is the best way, today, to improve the standards of what can be proposed to our patients. Because this is the best way, today, to make our message loud and clear.



# SOA2-01: Future of neurodevelopmental and neuroprotective psychomacology in child and adolescent psychiatry

4116 - Future of neurodevelopmental and neuroprotective psychomacology in child and adolescent psychiatry

Celso Arango

With recent evidence that the vast majority of mental disorders, even when they emerge in adulthood, are caused by abnormal neurodevelopment and resultant emphasis on prevention and early intervention, there is a need to put developmental neuropsychopharmacology at the top of the agenda in mental health research. The target of drug discovery should shift toward a population younger than the one that is typically included in clinical trials. Developmental therapeutic windows have not been sufficiently factored into the design of trials of psychotropic drugs for mental disorders. We should devote more research to identifying the developmental stages at which individuals are most likely to respond to particular treatments. This is not only a matter of trying to replicate what has been found in individuals with mature brains; it is about searching for new strategies that address developing brains while the therapeutic window for their effect is still open. The future of research in this area should focus on the use of drugs for primary and secondary prevention that would modify abnormal brain development and drugs that are neuroprotective and serve to protect the brain from environmental stressors.



# SOA2-03: Where are all they coming from? Child mental health response to the refugee crisis.

4128 - Where are all they coming from? Child mental health response to the refugee crisis.

Prof. Panos Vostanis University of Leicester and University College London

European child mental health services and related agencies are faced with an increasing challenge in responding to the influx of refugee children. This presentation will address practice, service and research issues, and will make recommendations in the context of existing evidence.

There is strong evidence on the prevalence and complexity of these children's mental health problems and broader needs. The existing body of literature is largely based on identifying risk factors among children with mental health problems and predominantly designing traumafocused interventions to reduce their symptomatic distress. Recent research and services have gradually shifted to a broader and dynamic resilience-building approach based on ecological theory, i.e. at child, family, school, community and societal level. There is increasing evidence for the implementation and effectiveness of interventions at all these levels, despite the methodological constraints in their evaluation.

In Europe, child mental health services need to collaborate with all agencies in contact with refugee children, establish joint care pathways, and integrate trauma-focused interventions with family and community approaches. In low- and middle-income countries, where specialist resources are sparse, resilience-building should aim at maximizing and upskilling existing capacity. European professionals have an important training, consultative and training role in this objective. A six-dimension psychosocial model that also applies to other children who experience complex trauma is proposed, based on the World Awareness for Children in Trauma programme (WACIT: www.wacit.org).



# SOA2-04: Identification of clinical high risk of psychoses: special requirements in children and adolescent

4130 - Identification of clinical high risk of psychoses: special requirements in children and adolescent

PD Dr. Frauke Schultze-Lutter University Hospital Bern

Psychotic disorders are a leading cause of disability-adjusted life years (DALYs); and although schizophrenia occurs infrequently in childhood and early adolescence, it is the ninth main cause of DALYs in boys between the ages of 10 and 14 years, and second main cause of DALYs in both genders between the ages of 15 and 19 years. A prodromal phase, which can last several years on average, precedes a majority of first-episode psychoses; it frequently leads to some decline in psychosocial functioning already but also offers an opportunity for an early detection of psychosis, and thus, for its indicated prevention. To this, two clinical high risk approaches, which had been developed in adult samples, are currently mainly followed, the ultra-high risk (UHR) criteria and basic symptom criteria. The UHR criteria were explicitly developed to predict a first-episode psychosis within 12 months, and indeed, the majority of conversions in clinical UHR cohorts do seem to occur within the first 12 months past initial assessment. The main UHR criterion, i.e. the attenuated psychotic symptoms (APS), includes symptoms that resemble positive symptoms of psychosis like delusions, hallucinations, and formal thought disorders with the exception that some insight into the abnormal nature of these experiences is still maintained. In contrast, the basic symptom criteria aim to detect the increased risk of psychoses at the earliest possible time using first subtle disturbances in information processing, which are experienced with full insight. Ideally, these changes should be detected when the person's coping abilities have not yet been compromised and when the initial symptoms of an emerging disorder have not yet resulted in any functional decline. First results of prospective and community studies indicate that a combination of both approaches might be most favorable to increase sensitivity and a timely risk detection, in addition to establishing a change-sensitive risk stratification approach. However, as earlier indicated by reports of increased rates of hallucinatory experiences in children of the community, developmental aspects might play an important role, recent studies suggest both UHR and basic symptom criteria might be less predictive of psychosis and less clinically relevant in children and adolescents. Thus, an early detection of psychosis in children and adolescent seems to require special efforts.



# SOA2-02: Where mind meets brain: the adolescent body and its implication in psychopathology

### 4117 - Where mind meets brain: the adolescent body and its implication in psychopathology

Prof. Martin Debbané Developmental Clinical Psychology Research Unit, Faculty of Psychology and Educational Sciences, University of Geneva

Standing as perhaps the most tangible object of developmental transitions, the adolescent body – the body in transitions – lies at the crossroads of the biopsychosocial transformations preparing youths for social fitness and adaptation. Early psychodynamic thinkers first captured the implication of the body in transitions when considering the storm and stress of adolescence in relation to psychopathological states. Today, the neurosciences shed new light on the topic from the perspectives of cognitive, developmental, social as well as fundamental neurosciences. The wealth of neuroscientific data yields a rich and complex picture of mental health and illness in relation to growth factors during the teenage years. While the breadth of these discoveries can be exhilarating, puzzlement generally arises when pondering on the clinical pertinence of these scientific breakthroughs.

As testified by fundamental neuroscience on rodents, we first find ourselves in the way our bodies have been handled by our main carers. Throughout childhood, the body is apprehended by significant others, first in the early attachment relationship, and in a somewhat independent fashion, by new attachment figures during adolescence. Critical to contemporary society, however, interactions with peers and different kinds of reflective screens shape the way youths construe both their bodily and mental selves, in more or less

integrated entities. Through the establishment of resilient networks, both at the cerebral, psychological and social levels, youths integrate the complex, context-dependent processes of activation and deactivation to adaptively navigate in the environment.

This presentation will attempt to situate the disjointed parts of scientific evidence on the body in transitions, and articulate them to potentially meaningful observations in developmental psychopathology. Our main working hypothesis postulates that the mindbrain-body triad undergoes a series programmed re-wiring in order to offer itself to being shaped by the social environment. Herein, the nature of psychopathological development rests in the disharmony and relative unpermeability of youth who fail to create new and significant attachments and social ties. Most interestingly, contemporary resilience research further suggests that preceding socio-relational hardships, embodied processes such as interoception and embodied mentalization in early adolescence may prelude the risk to psychopathology during this key developmental window.



### SOA3-01: ASD: supporting people to transit through science, lives and services

### 4120 - Autism spectrum disorder (ASD): supporting people to transit through science, lives and services

Dr. Joaquin Fuentes Policlinica Gipuzkoa

The Diagnostic and Statistical Manual (DSM-5) defines ASD by deficits in two core domains — social interaction and communication, and repetitive, restrictive behaviors — with onset during early development. This unification constitutes the first transition that needs to be considered from the scientific view point. The current categorization adds advantages, such as the availability of specifiers and the characterization of severity levels. But also, creates scientific shadows, such as classifying those without repetitive, restrictive behaviors as Social (Pragmatic) Communication Disorder; a distinction that may be adequate for homogeneity of research samples, but perhaps inadequate in fostering appropriate services for those cases in the community.

Although it has not been rule out that, in some parts of the world, there may be a real increase of new cases – due to parental age, for example, it is evident that cases of ASD are now much more frequently identified and diagnosed than before. Thus, for being an almost rare disorder, the 2015 Written Declaration on Autism by the European Parliament calls on the EU and its Member States to adopt a European Strategy for autism, including research and multinational prevalence studies, accurate detection and diagnosis, evidence-based treatment and support for all ages, and exchange of best practices. In consequence, research projects have been initiated and we expect to benefit by new data soon.

In some countries, citizens with ASD are showing now a different profile of what it used to be. This forecast the need for an adequate, if required, adaptation and transition of the services provided to this population. For example, in certain areas of Europe more and more people with ASD without intellectual disability are being currently diagnosed (cases previously described as Asperger Disorder). Or, in some countries the effort for early screening and growing social awareness are leading to very young children (in fact, babies) being diagnosed, and thus offering the chance for an informed early intervention.

Changes in classification systems, prevalence in the community, age of diagnosis, degree of associated or not intellectual disability, presence of comorbidities, individual evolution of symptomatology across development, as well as the quite diverse degree of local understanding and available services, generate marked differences in what is done in each country. Transition, across life for this population, and for all of us as service providers, remains an essential aspect to enforce.

Joaquin Fuentes, MD ESCAP Autism Field Advisor Chief of Child and Adolescent Psychiatry, Policlinica Gipuzkoa Research Consultant (Pro bono), Gautena Autism Program Donostia / San Sebasti**á**n, Spain



# SOA3-02: Adolescent female conduct disorder - state-of-the-art and new findings

### 4132 - Adolescent female conduct disorder - state-of-the-art and new findings

Prof. Dr. Christine M. Freitag University Hospital Frankfurt

Although the number of females exhibiting serious aggressive behaviours is growing, the majority of studies on biomarkers, neurocognitive phenotypes, and therapeutic treatment of conduct disorder (CD) have focused on male subjects only, despite strong evidence for a differential aetiology and neurobiology of female CD. As a consequence, female CD remains a highly neglected research area resulting in a significant gap of knowledge on neurobiological mechanisms underlying the development of the disorder in females leading to an absence of sexspecific targets for prevention and intervention. In this state-of the art lecture, we will present an overview on the current state of research on CD in adolescent females, focussing on emotion processing and its underlying neurobiology. The FemNAT-CD consortium addresses these issues in a comprehensive way by studying psychopathology, cognitive, neuroendocrine, neurophysiological, epigenetic and genetic biomarkers.



# SOA3-03: From the preschool child to the adult: neuronal basis of developmental dyslexia

### 4131 - From the preschool child to the adult: neuronal basis of developmental dyslexia

Prof. Dr. Silvia Brem University of Zurich

Reading, writing and arithmetics are among the most important cultural abilities and represent keystone academic skills. Accordingly, children suffering from poor reading abilities typically encounter severe scholastic, academic and professional disadvantages across their lifespan, and are at risk for psychological distress and mental health problems. Developmental dyslexia is a specific learning disorder of reading, often co-occurring with impairments in written expression, affecting around 5- 10% of school children. Importantly, as a prevalent comorbidity in child and adolescent psychiatry, developmental dyslexia places a high burden on affected individuals, their families and schools. Child-friendly, non-invasive neuroimaging techniques such as electroencephalography (EEG), structural (sMRI) and functional magnetic resonance imaging (fMRI) have contributed to better understand the deficits underlying reading impairments in the brain. At first, I am summarizing the most recent findings on neural correlates of developmental dyslexia from the school child to the adult. Then, I am concentrating on the transition from prereaders to readers and present evidence for neural alterations in the brain structure and function of preschool children at-risk for developmental dyslexia that appear to impede reading acquisition at school age. These novel results in preschoolers not only show that learning to read at school builds on an already altered language processing network in children with developmental dyslexia but, moreover point to the clinical potential of using such prereading differences to predict reading outcome and guide early interventions. Because interventions in developmental dyslexia are most successful the earlier they start, it should be a major aim to identify children with poor reading outcomes at a young age to support these children when they start learning to read with evidence-based trainings.



### SOA3-04: Neurofeedback as a complementary treatment approach for children and adolescent with ADHD

### 4123 - Neurofeedback as a complementary treatment approach for children and adolescent with ADHD

Prof. Dr. Martin Holtmann

ADHD is a heterogeneous disorder and a challenge to treat. Neurofeedback may be considered as a promising treatment option or component of the recommended multimodal treatment. It utilizes operant learning techniques with brain activity parameters to compensate deficits or to enhance self-regulation in patients. Neurofeedback has demonstrated promising and partly specific effects particularly improving inattention problems in ADHD, but effects on probably blinded outcomes are often inconclusive. This situation may reflect current inconsistencies in Neurofeedback protocols and shortcomings of evaluation studies with blinded outcomes, but it may also indicate limitations of Neurofeedback as a treatment for some ADHD patients. This important issue should be clarified in further studies.

Neurofeedback is appealing to many patients and their families and well tolerated, but there is need for more systematic evaluation to understand the specific mode of action. Future studies will need to disentangle mechanisms underlying both specific and unspecific effects of Neurofeedback. An additional challenge will be to identify robust predictors in order to decide which group of patients particularly benefits from this intervention.

Prof. Martin Holtmann, MD, PhD Chair of Child and Adolescent Psychiatry, Ruhr-University Bochum Medical Director, LWL-University Hospital for Child and Adolescent Psychiatry Heithofer Allee 64 59071 Hamm, Germany



# SOA3-05: Comorbidity of mental and physical illness: a major problem for the medecine of the 21st Century.

4125 - Comorbidity of mental and physical illness: a major problem for the medecine of the 21st Century.

Prof. Dr. med. Norman Sartorius Association for the Improvement of Mental Health Programmes (AMH), Genf

Comorbidity of mental and physical illness is a major public health problem made worse by the current tendencies of fragmentation of medicine into ever more narrow specialities. Data from the World Health Organization and a variety of other sources shows that comorbidity is increasing with the age of the population and is a main concern for significant loss of life years for people with this type of comorbidity.

The presentation will draw attention to evidence about the frequency of comorbidity and its consequences. It will also discuss options for dealing with the problem raised by this type of comorbidity.



# SOA4-01: Tourette syndrome: an update on newest findings on treatment and pathophysiology

### 4122 - Tourette syndrome: an update on newest findings on treatment and pathophysiology

Prof. Dr. Pieter Hoekstra University Medical Center Groningen

Tourette syndrome is a common childhood-onset disorder defined by the presence of motor and vocal tics, and often associated with co-occurring hyperactivity, inattention, impulsivity, compulsivity and/or social difficulties. Genes play a major role, both common and rare (sometimes de novo) variants and recent studies have started to identify genetic variants associated with TS. Environmental factors are also involved, most notably perinatal adverse events. Studies have additionally pointed to a role for streptococcal infections, but findings have been inconsistent and the concept of PANDAS is controversial. The past years have seen the publication of manualized behavioural treatments for TS, most notably habit reversal, now considered treatment of first choice. Results of medication are often disappointing. In this state of the art lecture I will summarize the recent literature in these areas.



SOA4-02: New medication based on genetic research in the field of autism, but also ADHD, anxiety, etc.

4124 - New medication based on genetic research in the field of autism, but also ADHD, anxiety, etc.

Antonio Persico

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# SOA4-03: Effect of the change on the Netherland health system organization

4127 - Social revolution in (Dutch) child psychiatry: redefining the role of the psychiatrist.

Prof. Dr. Robert Vermeiren Child and Youth Psychiatry, Curium, Leiden University Medical Center

Demedicalistion, normalisation, ... firm talk is used to force changes In the Dutch child mental health system. Drastic action has been taken to coerce a transition. Since January 2015, child psychiatry in the Netherlands is not longer part of health insurance. Instead, each of the individual 388 communities has obtained full responsibility, organisational and financial, for all care for youth, including all child psychiatry.

Since then, the field is in turmoil. While several changes are being embraced, the overall evaluation is far from positive. Positive aspects include the emphasis on family empowerment and rehabilitation, integrated care together with community (youth) teams and youth care partners. The downside is the neglect of specialised care and the fragmentation. At present, there is substantial discussion what is best for the future. It must be acknowledged that being under privatized health care insurers was far from ideal as well.

At present, the Netherlands receives attention from many different countries, who are interested in our decentralized system. Therefore, the Dutch revolution could set a trend in other countries, who similarly struggle with increasing costs and a large number of children who remain to receive inadequate care. Fundamentally, this revolution forces us to pro-actively address the role of the child psychiatrist in the social-medical domain. We should not leave this to politicians.



# SOA4-04: Early course and intervention in youth at-risk for psychosis: results from longitudinal studies

### 4133 - Early course and intervention in youth at-risk for psychosis: results from longitudinal studies

Prof. Dr. Raquel Gur The University of Pennsylvania

The increased focus on early identification of subthreshold psychotic symptoms provides an opportunity to examine the emergence of psychosis, follow individuals longitudinally and evaluate the effects of early intervention on functional outcome. Most studies of youth at risk for psychosis have capitalized on help-seeking individuals and examining predictors of transition to schizophrenia spectrum disorders. Several pre-presentation environmental variables are emerging as potential predictors of early course of psychotic illness. Interventions vary and include pharmacological and behavioral approaches. While there is no evidence that current pharmacological approaches to the treatment of schizophrenia are effective in impacting clinical risk, cognitive remediation and other behavioral treatment are increasingly used.

The presentation will highlight complementary approaches we have applied to a community sample of youths at risk for psychosis and to help seeking individuals early in the psychotic illness. The early presentation is a dynamic process characterized by anxiety, depression and subthreshold positive and negative symptoms. There is evidence for cognitive deficits and neuroimaging abnormalities indicative of neurodevelopmental aberrations. The main neurocognitive deficits associated with risk for psychosis included complex cognition and social cognition.

The importance of negative symptoms in the early course of psychosis and the adverse effects of neurocognitive deficits on functioning led us to examine the feasibility of remedial programs that target complex cognition and social cognition. To ameliorate cognitive deficits we are currently examining a Cognitive Remediation intervention consisting of eight 120-minute sessions in a small group format (BrainHQ modules, Posit Science Inc). To address negative symptoms and deficits in social cognition we have implemented Theater Improvisation Program to improve Social Cognition (TIPS), an 18 session CBT-informed theater training provided by professional Theater Directors. We will present preliminary results from these interventions and plans to disseminate them into publicly available intervention "toolkits" for clinicians and investigators.



# SOA4-05: ESCAP for mental health of child and adolescent refugees: facing the challenge together, reducing risk and promoting healthy development

4143 - ESCAP for mental health of child and adolescent refugees: facing the challenge together, reducing risk and promoting healthy development

Prof. Dr. Dimitris Anagnostopoulos National & Kapodistrian University of Athens

Humanitarian emergencies such as war and armed conflict can have a direct impact on the psychosocial well-being and mental health of children and adults, alongside with the physical, environmental and financial burden. Since 2015, over 1.3 million refugees and migrants have arrived to European countries by the Mediterranean Sea. In addition, almost 3 million Syrian refugees are living in Turkey. Among them more than 25 % are children and adolescents while the closure of the Balkan route and political arrangements with Turkey have led to a marked decrease of refugees arriving in Northern Europe, total numbers continue to increase as people flee their homelands due to human rights violations, persecution, poverty and conflict. Refugees, asylum seekers and irregular migrants are at heightened risk for certain mental health disorders, including post-traumatic stress, depression and psychosis.

Child refugees, face intense psychological trauma prior, during and after their flight, as a result of fleeing their homelands and entering into states of uncertainty, physical danger and distress. They have experienced and witnessed violence, lost loved ones, faced deprivation and been separated from their families. Many of the unaccompanied child refugees, both boys and girls, were sexually and physical abused. These atrocities have lasting effects that should be of concern to the countries where they will eventually settle. The psychosocial impact on individual, family and community level leads to limited ability to function in everyday life. There is an urgent need of an international policy concern and a priority for research evidence.

ESCAP has taken a clear position in the refugee crisis, standing up for the mental health and well being of refugee children, adolescents and their families. A Task group initiated by Board members within ESCAP has started to collect relevant knowledge and experience to support mental health workers involved with the care for refugee children and post on website."ESCAP for mental health of child and adolescent refugees" project is aimed to make the necessary knowledge available everywhere in Europe where professionals and volunteers are helping these children and their families; the idea is to come out with a program of activities that must enhance the availability and quality of mental health care for young refugees. European child and adolescent psychiatrists are aware that the exposure to war adversities vastly increases the risk of these youngsters to develop psychiatric disorders such as PTSD, anxiety disorders, mood disorders or behavioral disorders. All 33 National Associations of Child and Adolescent Psychiatry, as ESCAP members, were called to defend the mental health of young refugees and to present the ESCAP position statement to their governments. We realized that at the national level, the specific challenges and opportunities for child mental health differ across Europe depending on the number of refugees, their countries of origin and their age; also, national practice and policy on child mental health protection vary through Europe. The project members

take position to promote healthy adaptation of young refugees and their families on new living circumstances and to lower their risks of developing mental health problems. For those young refugees with serious mental disorders who require psychiatric treatment, ESCAP takes a pragmatic approach and call for child and adolescent psychiatrists throughout Europe and beyond to come up with relevant in-depth information and ideas and best clinical evidence. Useful stories, empirical knowledge, recommendations and practical examples are used for creating a platform of knowledge to support mental health care for refugee children. Using our expertise and showing leadership in this situation is important and can prevent suffering now and in the future.



S01-01: Qualitative Research in Adolescent Psychiatry: A new way to improve the understanding of psychiatric disorders

Prof. PHD Marie Rose MORO AEPEA - AP-HP, Paris Descartes University, CESP-INSERM 1178

The hegemony of quantitative research, leaning on the positivist paradigm and the principles of randomized control trials (RCTs) and meta-analyses of RCTs, have generated great improvements in understanding and treatment of psychiatric disorders. However, these methods are inherently limited by the fact that they tend to produce and promote a normative scientific knowledge.

On the opposite, inductive methods developed in qualitative studies are valuable to elicit how people interpret and act upon their illness, and to get a unique understanding impossible to obtain by other methods. Qualitative research offers a thick description of a phenomenon and attempts to document the complexity and multiplicity of its experience. The use of qualitative methods has increased substantially over the past decade in the psychiatric field. Proximity between the clinical posture in psychiatry and the posture of the researcher investigating with a qualitative design may reconcile theoretical research and day-to-day clinical observations. Moreover, qualitative research encompasses a global perspective on clinical, medical as well as socio-cultural levels, and allows embracing all the complexity of suffering and care. This symposium will introduce different ways of doing qualitative research in adolescent care. It will focus on adolescence emerging symptoms (deliberate self-harm, suicide, and psychosis) as well as culture and migration. Presentations will aim at describing methodological aspects as well as examples of knowledge obtained in qualitative studies.



3010 - Metasynthesis and suicide: A method for reviewing and analyzing the qualitative literature can improve the understanding of adolescent suicide and its care

Dr PHD Jonathan LACHAL AEPEA - AP-HP, Paris Descartes University, CESP-INSERM 1178

Objectives: Suicide is the second leading cause of death among 15-25 years in the world. The rate of suicide attempts is nevertheless 10 to 20 times higher than completed suicides. Past research improved expertise on risk and protective factors, and resulted in large-scale campaigns of prevention and reduction of deaths by suicide. However, despite of these progresses, these quantitative studies tend to be repetitive and to focus on the same risk factors, resulting in the slowing and even in some case the inversion of the diminution of prevalence rates of suicidal attempts. We need new ways of improving the understanding of suicide. Qualitative studies, by interviewing and interpreting the discourse of the protagonist of suicide and its care, offer an original lighting on adolescent suicide. However, these studies are disseminated, isolated and do not play a significant role in the movement toward evidence-based medicine. Consequently, several research teams have worked to develop synthesis methods to these data, in order to facilitate the transfer of knowledge to improve healthcare.

Method: We will present, as an example of these methods, a qualitative synthesis on adolescents' suicidal behaviours. This metasynthesis is based on the perspectives of 900 participants (adolescents presenting suicidal behaviours, their parents, and their healthcare professionals). We included 44 studies systematically founded on five web databases.

Results: the suicidal experience is organized around three superordinate themes: the individual experience (the individual burden and suffering related to suicide attempts); the relational experience (the importance of relationships with others at all stages of the process of suicidal behaviour); and the social and cultural experience (how the group and society accept or reject young people in distress and their families and how that affects the suicidal process and its management).

Conclusions: This metasynthesis work offers a new perspective on adolescent suicide, integrating the perspectives of adolescents, parents and healthcare professionals. The violence of the message of a suicidal act and the fears associated with the death of an adolescent lead to incomprehension and interfere with the capacity for empathy of both family members and professionals. One pathway to restore empathy may be in the concept of intersubjectivity and in the conceptualization of a "third space", which will be detailed during the intervention.



3011 - Psychosis risk: early intervention versus silent follow-up. How social sciences methodology fills the gap between research and daily work

Laelia Benoit AEPEA - AP-HP, Paris Descartes University, CESP-INSERM 1178

Background: Over the last twenty years, predicting psychosis has become a priority of both research and policies in the mental health field. However, in comparison to most developed countries, standardized early interventions are little developed in France. Psychiatrists promoting those approaches defend the use of the At Risk Mental State category (ARMS) and of predictive tools. However, cases of young patients presenting unclear symptoms that might be the signs of a beginning psychosis or might as well reflect some adolescent unease are commonplace in psychiatry. Yet, little is known about the routine practices of youth psychiatrists regarding prognosis. What kinds of expectations do they have when treating young patients? Do they anticipate future mental disorders? Do they communicate their expectations to the patients and their families?

Method: We used the Grounded Theory, an agreed-upon standard in social science research since the 1960's. This qualitative method links subjective experiences to social processes. It allows a broader interpretation of results by encompassing the bounds between mental health policies, professional norms and individual narratives. We conducted in-depth interviews with a sample of French youth psychiatrists and asked them how they used prognosis in their daily work.

Results: If all participants were aware of early intervention research, most of them did not make use of predictive tools. While they stressed the impossibility of making a reliable prognosis in their daily work, they described worrying teenagers whose situations called for specific action. Psychiatrists feared to increase their patient distress if announcing a risk of mental trouble, what they called the "self-fulfilling prophecy". Their young patients were provided with year-long follow ups that were not conditional on a diagnosis disclosure. Finally, psychiatrists' uncertainty was only managed at the cost of ambivalent attitudes and a deep emotional involvement.

Conclusion: Predicting psychosis onset remains a highly uncertain task for youth psychiatrists. However, participants' inconspicuous risk management might be linked to some specificities of the French public welfare system, such as universal costs coverage. These issues will be detailed and discussed during this presentation.



### 3013 - The search for meaning about Non-Suicidal Self-Injury and suicide attempt: contribution of a qualitative study with adolescents

Dr. Salomé GRANDCLERC AEPEA - AP-HP, Paris Descartes University, CESP-INSERM 1178

Background: We often observe self-injurious behaviors in adolescent psychiatry, among which non-suicidal self-injury (NSSI) and suicidal behavior (SB). NSSI affects around 10% of adolescents, especially adolescent girls. The frequent observation of the coexistence of NSSI and SB requires that we study the link between these two types of behavior as well as the ways that NSSI is conceptualized.

Methods: To progress on this issue, adolescent's experience and how they give meaning to the act is an important dimension to examine. To understand SB and NSSI in their individual, environmental, social and cultural complexity, we chose an original approach commonly used in the social sciences: the qualitative approach. This method is based on a phenomenological and inductive concept and is perfectly adapted for the in-depth study and detailed understanding of complex questions. The principal objective is to propose a better comprehension of NSSI and SB mechanisms; also a detailed study of family and social relational terms, and a better assessment of self-inflicted injuries representations in adolescent girls.

Results: Data collection relied on two semi-structured interviews conducted with adolescent girls who experienced at least one episode of NSSI or SB. Therefore, we have highlighted various experience aspects regarding these adolescent girls who harm themselves. The data analysis has been made with a recognized method in health psychology, the Interpretative Phenomenological Analysis. Data analysis has enabled to highlight four experience levels in 14 main themes regarding eight adolescent girls: the relationship to the self; the relationship to the other, especially the relational value of the act, the relationship to the body and the difficulties to make his own and the relationship to death.

Conclusion: Our results are consistent with many meanings of the self-injurious behavior. This study shows the difficulties to draw the boundaries of his moving body, to define the border lines between the self and the other, between life and death. These results could echo with the subjectivation work, specific to adolescence. The original qualitative approach has ensured that the adolescent girls could make a narrative of the act, that they could tell their own story. This works offers new perspectives on self-inflicted injuries representations and on the way to rethink the care for this population.



### 3014 - On the path of psychiatric care for unaccompanied minors: What a qualitative study can bring us?

Dr. Laure WOESTELANDT

AFPEA - APHP Hônital Necker Service de nédonsychi

AEPEA - APHP, Hôpital Necker, Service de pédopsychiatrie de l'enfant et de l'adolescent, Université Paris Descartes

Background: The unaccompanied refugee minors experienced multiple stressful events due to problems in their home countries. This often leads to a high degree of vulnerability and can cause decompression sickness. We conducted a scoping review of literature and a thematic classification to better understand certain conditions prior to the implementation of psychiatric treatment for unaccompanied refugee minors. The literature revealed five major trends concerning mental health issues in unaccompanied refugee minors: the prevalence of psychiatric disorders, resilience and coping strategies, their own perception of what psychiatric care should be, the impact of social and judiciary policies on their treatment and the importance of crosscultural and cross-disciplinary practices. This review focuses on the implementation of psychiatric care for unaccompanied refugee minors.

Methods: This qualitative study focused on 8 of the 24 young participants who demonstrated psychiatric disorders during the year prior to the beginning of this research or during the research. All of them had access to psychiatric care following that work. A longitudinal analysis of each of their psychiatric sessions and a cross analysis of all these interviews were conducted. Data collection based on three semi-strutured interviews. We used the Interpretative Phenomenological Analysis, a qualitative method developed by Smtih and recognized in health psychology.

Results: The data analysis of each interview highlighted several main themes organized in three broader categories that include: the elaboration of psychiatric or psychological care, monitoring modalities and the objectives of such monitoring.

Conclusion: Given these results, transdisciplinary and transcultural sensitivity is of great importance when understanding unaccompanied refugee minors and their mental health issues.



### S01-02: The broader endophenotype in populations at familial risk for severe mental illness

Prof. Dr. Manon Hillegers

Offspring of parents with psychotic- and major mood disorders have an increased risk of developing a severe mental illness themselves. Premorbid cognitive and psychopathological deficits may be related to structural, neurochemical and functional brain abnormalities, underlining the neurobiological basis of these severe mental disorders. These early antecedents including anxiety- and depressive symptoms, manic/psychotic like experiences and cognitive deficits precede and predict the development of these illnesses, but are non-specific. Familial high risk studies of children with parents with mental illnesses can identify early precursors of mental illness, and offer more insight about trajectories of both symptom dimensions, cognition, structural/functional brain differences, environmental stressors and thereby identify possibilities for intervention in the pre-morbid phase. Indeed, early identification and detection is necessary if we want improve the prevention and treatment of severe mental illnesses. The objective of this symposium is to present and discuss new data from six international studies (Denmark, The Netherlands, Spain and Switzerland) describing the psychopathology, neuroimaging, cognitive and environmental findings in offspring of parents with psychotic- and major mood disorders. 1) The Danish group will present the plans for the VIA11 study based on a fMRI imaging literature review in first degree relatives of schizophrenia patients; 2) The Spanish group will present on the clinical, neurocognitive and structural neuroimaging assessment in their Bipolar and Schizophrenia Young Offspring Study (BASYS); 3) The Dutch group will present the psychopathology and structural brain findings from their Bipolar and Schizophrenia Offspring Study (DBSOS); 4) The Swiss group will present on cognitive performance in bipolar patients and their children and 5) on psychopathology of young children aged 4 to 7 of parents with bipolar or major depressive disorder; 6) The Dutch group will present on the role of family functioning and childhood trauma in the development of psychopathology in bipolar offspring, during 12 year follow-up. Conclusion: The convergent findings of these international offspring studies add to the construction of specific risk profiles in these high risk populations which can be used in early identification and prevention programs.



2605 - Studies using functional MRI to examine cognitive control in children, adolescents and young adults at risk to inform plans for VIA 11—children at genetic high risk for schizophrenia and bipolar disorder

Prof.dr. Kerstin J. Plessen

Objectives: The overall objective of the presentation is to discuss approaches to study underlying neurobiology within the concept of endophenotypes in young individuals at high genetic risk for developing severe mental disorders. This will be exemplified within the "Danish High Risk and Resilience Study" with an emphasis on the use of behavioural findings at age 7, as well as anatomical and functional magnetic resonance imaging (MRI) and electroencephalography (EEG) at 11 years of age (VIA 11 study). Using a strategy of "enriched recruitment" will further shed light on the specific behavioural and neurobiological profile of several domains of development. Methods: We established a representative cohort at age 7 with children at high risk and controls and that were recruited via Danish Registers and consisted of 200 children with a parent with schizophrenia, 120 children with a parent with bipolar disorder and 200 children of controls (defined as not diagnosed with SZ or BP). After having established the cohort at age 7, we will invite the families back and further focus on underlying potential endophenotypes (neuropsychological tasks, MRI and EEG) in a crossdiagnostic perspective to understand the trajectories of psychopathology. In this presentation, we will also present the literature examining young (<23 years) first-degree relatives (FDR) of individuals with schizophrenia and individuals with bipolar disorder using EEG and functional MRI. Existing studies can be classified with respect to their tasks during the functional MRI, the presence or absence of symptoms, the relatedness to the person with a disorder, the follow-up period and the comparison of several at risk states. Results: First, the presenter will briefly summarize main results of behavioural findings in the domain of cognitive control from their own study at 7 years of age (Via 7) that motivated the use of brain mapping in the follow-up at age 11. Second, we will review the existing literature, while focusing on tasks involving cognitive control and language in those young individuals at risk by discussing the overall findings for studies that largely identified consistent findings between individuals with the manifest disorder and individuals at risk. Third, we will present plans for our own study, using a task requiring cognitive control to map activation during self-regulation, more specific the process of errormonitoring and subsequent behavioural adaptation in this population.



### 2611 - PSYCHOPATHOLOGY AND STRUCTURAL BRAIN ABNORMALITIES IN CHILD AND ADOLESCENT OFFSPRING OF SCHIZOPHRENIA AND BIPOLAR PATIENTS

Nikita Setiaman

Background: Prospectively studying the development of brain structure in children of a parent with schizophrenia (SZo) or bipolar disorder (BDo) is important to understand the developmental trajectories of these disorders.

Methods: Psychopathology (K-SADS-PL, CBCL/6-18) and cognitive functioning (WISC-III/WAIS-III) was obtained in 54 SZo. 90 BDo and 46 controls (8-18 years old, mean=13.18 years), as well as T1-weighted brain images from 40 SZo, 66 BDo, and 40 controls. FreeSurfer-5.3.0 was used for brain segmentation. Groups were compared (correcting for familiar-dependency) using linear mixed effects modeling. FDR-correction was applied. Results: Total brain and cortical gray matter volumes (particularly in para- and postcentral cortices and pars orbitalis) were significantly smaller in SZo and BPo relative to controls. In addition, cortical white matter volume and mean cortical thickness was smaller in SZo as compared with controls. Smaller total subcortical gray matter and local cortical volumes several temporal, insular and supramarginal cortices were found in SZo relative to controls and BD-offspring.

Conclusions: Increased familial risk for SZ or BD is related to a smaller total brain, particularly in global gray matter volume and the partietal cortex. Findings suggest that brain abnormalities are more pronounced in SZ-offspring than in BD-offspring in cerebral white matter, subcortical gray matter, and temporal cortices. We provide suggestive evidence that neurodevelopmental processes may play a larger role in both disorders, but are more pronounced in schizophrenia than they in bipolar disorder. The presence and severity of psychopathology, IQ and other relevant factors will be discussed.



3004 - Clinical, cognitive and neuroimaging findings in offspring of probands with schizophrenia and bipolar disorder: evidence of a neurodevelopmental continuum

MD PhD Gisela Sugranyes Institut Clinic de Neurociències, Hospital Clínic i Provincial

Aims: Studies in child and adolescent offspring of patients with schizophrenia or bipolar disorders may help understand the influence of neurodevelopmental factors on the premorbid phenotype of these disorders. In the current symposium we will present findings from our study assessing whether a combination of neurodevelopmental factors discriminates between young offspring of patients with schizophrenia (SzO) or bipolar disorder (BpO) and community controls (CcO). In addition, the association between these factors and rates of psychiatric diagnoses in high risk (HR) youth will be assessed.

Methods: one hundred thirty-three HR offspring (47 SzO and 86 BpO) and 84 CcO, aged 6-17, underwent cross-sectional clinical, neurocognitive and structural neuroimaging assessment. Recruitment and assessment was performed within the BASYS Study, a multicenter study conducted in the Hospital Clinic of Barcelona and the Hospital General Universitario Gregorio Marañón, Madrid. Information on perinatal events and early childhood development was also obtained. General linear mixed models were performed to assess group discrimination and association with lifetime axis I psychiatric disorders.

Results: multivariate analyses revealed that greater neurological soft signs, less total grey matter volume and a higher frequency of obstetric complications discriminated HR offspring from CcO. When comparing each group individually, greater neurological soft signs and a higher frequency of obstetric complications discriminated SzO from CcO, and BpO from CcO, while lower intelligence also discriminated SzO from CcO and from BpO. Within HR offspring, lower intelligence and less total grey matter volume were associated with lifetime incidence of psychiatric disorders.

Conclusions: in our sample, both SzO and BpO showed evidence of neurodevelopmental insult, although this may have a greater impact in SzO. Clinicians should be alerted to the potential association between lower intelligence and total grey matter volume and risk for psychopathology, which may index increased risk for adverse clinical outcomes in HR youth.



### 2999 - Cognitive performance in bipolar patients and their children

Prof.dr. Martin Preisig

Center for Psychiatric Epidemiology and Psychopathology, Department of Psychiatr

#### **Objectives**

Studies on the cognitive functioning of patients with bipolar disorders (BD) have revealed contradictory findings, which could have been attributable to heterogeneity within BD. In order to test whether the occurrence of psychotic features is a source of heterogeneity we compared the cognitive performance among bipolar patients with or without psychotic symptoms, patients with major depressive disorder (MDD) and controls. Moreover, in order to test whether abnormalities in cognitive functioning are a heritable endophenotype we also compared the cognitive functioning among the offspring of patients with BPD, MDD and controls.

#### Methods

Within a prospective high-risk study on BPD and MDD, 41 bipolar patients with and 45 without psychotic symptoms, 46 patients with MDD and 49 controls underwent both a comprehensive diagnostic evaluation using the semi-structured Diagnostic Interview for Genetic Studies and a cognitive assessment using the MATRICS and the Victoria Stroop Test. In addition, 54 offspring of bipolar patients with and 41 offspring of bipolar patients without psychotic symptoms, 58 offspring of patients with MDD and 107 controls underwent the same cognitive assessment in young adulthood.

#### Results

1) Bipolar patients with and without psychotic symptoms but not the MDD patients showed poorer overall cognitive performance than controls. 2) Among BD patients those with psychotic symptoms revealed a significantly poorer cognitive performance than those without psychotic symptoms, where the between group differences concerned speed of processing, reasoning and problem solving, visual learning and inhibition. These differences remained after adjusting for disease severity. 3) The cognitive performance of the offspring did not differ in function of the parental diagnosis.

#### Conclusion

Our data confirmed cognitive impairment in bipolar patients. This impairment was significantly more pronounced in bipolar patients with psychotic symptoms. However, we did not observe poorer cognitive performance in the offspring of patients with BP as compared to controls, suggesting that cognitive impairment is a consequence of rather than a stable trait preceding the onset of BPD.



### 2606 - The role of family functioning and childhood trauma in the development of psychopathology in bipolar offspring

MSc PhD Manja Koenders

Objective: Recent bipolar offspring studies show that up to 70% of the offspring of a parent with bipolar disorder (BD) develop some form of psychopathology, which is much higher than what would be expected based on genetic risk only (Duffy et al., 2011; Mesman et al., 2013). The aim of the current study is to investigate whether environmental factors such as childhood trauma and family functioning are associated with the onset of axis I psychopathology in bipolar offspring.

Method: The current study is part of an on-going prospective cohort study among adolescent offspring of parents with BD in The Netherlands (Mesman et al., 2013). The Dutch bipolar offspring cohort consists of two generations (86 families): 137 fathers, 138 mothers and 140 children. All children have one parent diagnosed with BD (84 mothers, 56 fathers). Bipolar offspring were psychiatrically evaluated at baseline and at 1-, 5-, and 12-year follow-ups. Results: Cox regression analyses show that emotional maltreatment is significantly associated (HR=1.89, p=.007) with the development of mood disorders, and not with other disorders or psychopathology in general . Family functioning is significantly associated with the onset of non-mood disorders (HR=1.14, p=.01) and with psychopathology in general (HR=1.14, p=.006), but not with the onset of mood disorders specifically. Physical and sexual abuse were not significantly associated with an earlier onset of psychopathology.

Conclusion: The current results indicate that both emotional maltreatment and family functioning problems are associated with an earlier onset of psychopathology in a bipolar offspring cohort. Emotional maltreatment seems to be specifically associated with the onset of mood disorder, whereas family functioning appeared to more strongly associated with the onset of other Axis I psychopathology. These findings point towards the importance of interventions for at risk populations, focused on contextual factors such as family functioning, both in early childhood and in later life. However despite the prospective design of the study, it is not possible to disentangle causal relations between psychopathology onset and environmental factors.



### 3001 - Psychopathology of young children aged 4 to 7 of parents with bipolar or major depressive disorder

PhD Caroline Vandeleur

Objectives: Only two American high-risk studies on mood disorders have reported on psychopathology in very young children. This is due to the methodological difficulties of assessing early psychopathology. The objectives of the present paper were to 1) test the concordance of diagnoses derived from the Dominic interview and the Kiddie Schedule for Affective Disorders and Schizophrenia—Epidemiologic version (K-SADS-E) in 7 year-old children and 2) determine the associations between parental mood disorders and psychopathology in 4 year-olds according to the Dominic, and psychopathology in 7 year-olds according to the two diagnostic approaches.

Methods: A total of 64 offspring aged 4 years of 54 probands (17 children of bipolar probands, 15 of depressed probands, 32 of controls) were directly interviewed using the Dominic; and 131 offspring were assessed using the K-SADS and 77 using the Dominic at age 7. Among them, 59 offspring (11 children of bipolar probands, 18 of depressed probands, 22 controls) were assessed using both instruments. Concordance for depression, behavioral and anxiety disorders was established using the Yule's Y statistic, whereas the associations between parental and offspring disorders were assessed using generalized linear mixed models.

Results: 1) Concordance between the diagnoses according to the Dominic and the K-SADS-E was within the fair to good range. 2) The risk of psychiatric disorders according to the Dominic in offspring of parents with mood disorders at age 4 did not differ from those of offspring of controls. Similarly, within the small sample of offspring assessed using both instruments at age 7, the risk of psychopathology in offspring did not differ in function of the parental disorder. However, in the larger sample of offspring assessed using the K-SADS, those of depressed probands revealed a four-times higher risk of separation anxiety disorder than those of controls, even when parental comorbid disorders were covaried.

Conclusion: Our results provide further support for the validity of the Dominic as an investigation tool for psychopathology in young children. Nevertheless, our small sample did not provide evidence for an increased risk of psychopathology in 4 year-old offspring of probands with mood disorders. In contrast, at age 7 our data from the K-SADS suggest that parental depression confers a risk of separation anxiety disorder, which might represent an early developmental marker of emotional dysfunction.



### S01-03: Early Intervention in adolescents with Borderline PD

Dr Susanne Schlüter-Müller University of Basel

In the last years Borderline Personality Disorder (BPD) has become more and more accepted as a valid diagnosis in adolescent patients. Thus a growing interest is in the development of treatment approaches for effective early intervention. As we know from a large number of therapy studies in adult BPD, treatment as usual is not sufficiently effective. Currently the four specialized treatment approaches Dialectical –Behaviour Therapy (DBT), Mentalization-Based Therapy (MBT), Transference Focused Psychotherapy (TFP) and Schema-Focused Therapy (SFT) have demonstrated a good evidence base for the treatment of BPD. In this symposium we will focus on different treatment approaches that have been developed for the treatment of BPD in adolescent patients. Streeck et al. will describe a RCT of a newly developed psychodynamic treatment approach in an adolescent inpatient setting. Kaess et al. will present data on the effectiveness of a brief cognitive behavioral intervention in adolescent NSSI and BPD. Birkhölzer and co-workers will describe a controlled multicentre study with a comparison of the treatment approaches AIT (Adolescent Identity Treatment) and DBT-A (Dialectical –Behaviour Therapy for Adolescents). In the last presentation Seiffge-Krenke will take up the issue of disturbed identity development in adolescents that is one of the core symptoms of BPD.



### 3407 - Early intervention for borderline personality disorder: psychodynamic therapy in adolescents

Prof Dr Annette Streeck-Fischer

Objectives: Borderline personality disorder (BPD) should be understood as a personality developmental disorder (Streeck-Fischer, 2008, 2013) that has its first manifestation in late childhood and adolescence. There are only few treatment studies of adolescents meeting the diagnostic criteria of BPD, although early interventions for these patients are urgently needed (cf. Chanen & McCutcheon, 2013). We examined the effectiveness of an inpatient Psychodynamic Therapy (PDT).

Methods: Twenty-eight adolescents fulfilling the DSM-IV diagnostic criteria of BPD were treated with PDT. The mean duration of treatment was 29.87 weeks (SD=15.88). Outcomes were remission rates, GAF, GSI, SDQ, IIP and BPI scores. Assessments were made at admission and after treatment. Pre-post comparisons and comparisons with normative data were conducted. Results: At the end of treatment 39.29% of the patients were remitted. We found significant improvements for the GAF, GSI, SDQ, IIP (all p<0.001) and the BPI (p=0.006). Conclusions: These clinically relevant improvements demonstrate the effectiveness of PDT in adolescents with BPD and stress the usefulness of an early intervention for these patients.



3409 - Effectiveness of a brief cognitive behavioral intervention for early intervention in adolescent nonsuicidal self-injury and borderline personality disorder

Prof Dr Michael Kaess

#### Background:

International data show that approx. 10% of adolescents engage in nonsuicidal self-injury (NSSI). This group may represent an important target group for indicated prevention of borderline personality disorder (BPD). Despite the large impact of NSSI as a common and important marker of early risk, there is still a lack of evidence-based, specific, and effective manualized treatment approaches for adolescents with NSSI.

#### Methods:

A randomized controlled trial (RCT) testing the effectiveness of a new cognitive-behavioural treatment (CBT) manual (8-12 sessions) for self-harming adolescents − the Cutting-Down-Programme (CDP) was conducted. 74 adolescents aged between 12 and 17, who have engaged in repetitive NSSI (≥ 5 incidents) in the last 6 months, have been randomized in either the treatment are (CDP) compared to a high-quality treatment as usual (TAU). Adolescents were assessed using structured interviews at baseline, postline and follow-up (6 months after treatment). Primary outcome criterion is a significant reduction in the frequency of NSSI.

#### Results:

Recruitment has been finalized and the last follow-up assessment will be conducted in January 2017. Thus, the talk will report first and unpublished data of the RCT. Preliminary analyses indicate that the brief intervention leads to a significant reduction of both NSSI and suicide attempts, and has equal effects compared to high-quality TAU. Interestingly, individuals with BPD show worse outcome in the brief intervention at postline but catch up towards follow-up.

#### Discussion:

This is the first RCT to test the effectiveness of a short-term CBT intervention in early intervention of BPD. They emphasize the potential for further improvement in BPD individuals after termination of a brief intervention. Results will be able to inform feasibility and effectiveness of low-dose early intervention in this important target group.



### 3410 - Evaluation of the treatment approach AIT — a process-outcome study in comparison to DBT-A

Dr Marc Birkhölzer

Objective: One of the four evidence based approaches for the treatment of Borderline Personality Disorder (BPD) is Transference Focused Psychotherapy (TFP). We have adapted the basic psychodynamic treatment techniques of TFP for the use in adolescents and have integrated these techniques with psychoeducation, family interventions and behavioral interventions to the new treatment approach AIT (Adolescent Identity Treatment). To demonstrate the efficacy of AIT we conduct a controlled clinical multicenter study in comparison with DBT-A that is seen as a well established method for the treatment of adolescent BPD.

Methods: Since October 2015 we perform a controlled process-outcome study with pre-post-follow-up-assessments and a strong focus on video-based analyses of the therapeutic process using established methods from psychotherapy process research (rupture episodes and change moments). With the use of wearable biosensors we assess psychophysiological arousal of both patients and therapists and connect these data to interactional processes and specific moments in therapy. Study centers of this multicentre trial are Basel (AIT), Heidelberg (DBT-A) and Santiago de Chile (AIT).

Results: In this presentation we will describe first results of this ongoing study. The focus will be on the analysis of rupture episodes and change moments in relation to the use of AIT specific techniques. Preliminary data show that specific biomarker behaviour can be found related to significant psychotherapeutic events.

Conclusion: Psychotherapy process research in adolescent BPD patients yields specific results to understand the mechanisms of therapy that can be used to improve the quality of treatment.



### 3411 - Identity status and dysfunctional family rearing: A comparison of normative and clinical groups

Prof Dr Inge Seiffge-Krenke

Objective: Delayed identity development is a concern in many empirical studies, mostly based on normative samples. So far, the impact of dysfunctional parenting as a factor contributing to identity arrest or delay both in normative and clinical samples is an open research question. Methods: This study compared three groups differing in age and health status (total N=732) with respect to identity status, parental dysfunctional behavior and symptomatology. 301 adolescents, 351 emerging adult and 80 same aged patients in psychiatry and psychotherapy centers filled in questionnaires that assessed different dimensions of identity status, dysfunctional parenting of fathers or mothers (psychological control, anxious, rearing) and externalizing and internalizing symptomatology via YASR and YSR.

Results: As expected, patients were characterized by delayed identity development, particularly ruminative exploration. Further, patients described high levels of father's anxious rearing and mother's intrusive psychological control. Patients'levels of both internalizing and externalizing symptomatology were high; the impact of externalizing symptoms on identity arrest was strong. Identity status was delayed, but age adequate in both groups of healthy youth, with comparably high levels in parental anxious monitoring. Compared to adolescents, emerging adults were particularly active in their identity development, show high identity stress but no increase in psychopathology.

Conclusions: The impact of externalizing symptomatology on identity arrest has been understudied. The findings show strong links between dysfunctional parenting and a delay in identity status, particularly in the group of patients.



S01-04: The Refugee Children; Past and Present

Prof.Dr. Bengi Semerci

As a result of forced flee, unprecedentedly more than 60 million people are living far from their homes. Global refugee population whom over half of them are under the age of 18 is predicted to as much as 21.3, the highest of all times. In our Symposium we want to discuss the current and past mental health statues of refugee children and adolescents with experts working with refugee children and adolescents from different times and countries. Experts will share their experiences from Bosnia and Herzegovina war in 90-ties and recent experiences from Syrian and Iraqi refugees who settle in Turkey.



### 2361 - The influence of mother's mental health state on vulnerability and resilience of children who lost their fathers in war

PhD Nermina KraviĆ

Mothers who had experienced a loss of their husbands during the war had higher level of traumatisation, and posttraumatic stress symptoms have negative influence on their children's behaviour problems. More traumatised mothers had lower resilience and it is in correlation with children's feeling of personal competence, but had no influence on their self acceptance.



# 2362 - The acculturation and repatriation problems and school behavioral problems reported from teachers among repatriated refugee adolescents in Bosnia-Herzegovina

### Mevludin HASANOVIĆ

Objective. To describe the acculturation and repatriation problems and school behavior problems reported from teachers among Bosnia-Herzegovina (BH) repatriated refugee school adolescents after the war 1992-1995, and to analyze possible differences between primary and secondary school students. Methods. The sample of 100 adolescents aged of 15.2±2.4 years consisted from two groups: elementary and secondary school students (n=50, both equalized by gender), who survived the 1992-1995 war catastrophes, and were forced to spend certain refugee period in foreign country during and after this war. They were prevented to return to their original home places after repatriation because of no safety there. We used General questionnaire for personal information and trauma experiences, Personal questionnaire for acculturation and repatriation, and teacher's version of the Children Behavior Check list, for (Achenbach CBCL). Results. Younger students reported lower adjustment and tendency to internalization. Older adolescents reported more intensive externalizing and other problems. Older adolescents reported significantly more often "thinking about his/her native place on arrival at the place of exile" and "thoughts about cousins", while younger students reported more often "couldn't play outside". Teachers reported a number of behavioral disorders that returnees showed high maladjustment during repatriation. Returnees with more acculturation problems showed more functional and relational problems but less psycho-emotional problems after repatriation.

Conclusions. Younger students showed tendency to internalization and older adolescents showed significantly more intensive externalizing problems and other problems. Teachers have noticed a number of behavioral disorders that returnees showed as higher maladjustment during repatriation. Acculturation problems abroad were associated with functional and relational problems after returned at home.



## 2363 - A School-based, Teacher-delivered Psychological Intervention Group Program for Syrian Refugee Children in Istanbul

Vahdet Görmez

In the project titled above we present data from a school based psychological intervention program developed by the study team and delivered by the school teachers who had undergone intensive training. This is a manualized, 8 session group program based on cognitive-behavioral therapy principles and has so far been successfully used in two schools. In this presentation we aim to share the data about traumatic experiences encountered by these young people and the process of developing and implementing this intervention.



## 2364 - Life after horror; Depression and anxiety among Ezidi children and adolescents in Turkey

Veysi Çeri

The presenter will share his working experiences with refugee children and the presentation also consist of several study results that conducted with Ezidi refugee children and adolescents who were fled from Iraq by the horror of ISIS terror



# S01-05: ASD in adolescence and adulthood: research needs to inform our practice

S01-05: ASD in adolescence and adulthood: research needs to inform our practice

Prof. Diana Schendel Aarhus University

In the wake of dramatic increases in autism spectrum disorder (ASD) diagnosed in children we now see an unprecedented increase in diagnosed persons with ASD entering adolescence and young adulthood. The research base focusing on autistic adolescents and adults to inform practice, however, is relatively underdeveloped. The symposium draws on different research efforts across the EU and addresses important areas regarding long term outcome, including intervention outcome; factors affecting outcome; phenotypic measures; and services delivery characteristics for autistic adolescents and adults.



## 3171 - Services delivery for autistic adolescents and adults in the European Union: a multi-site assessment by the ASDEU Consortium

Denmark Diana Schendel Aarhus University

Objective: There is relatively little research knowledge regarding services organization or community readiness to provide services for autistic adolescents and adults. The study objective was to improve understanding of current care practices, gaps in care provision, opportunities for care improvement and local models of adult care as part of the Autism Spectrum Disorder in the European Union (ASDEU).

Methods: The adult services focus areas included 1) approaches to services and treatment, management of comorbidity; access to diagnosis and post-diagnostic support; transitions during adult life; and autistic elder care. Study methods include site-specific information searches regarding local organization of services and local services policies and recommendations for autistic adults in each participating country; 2) on-line surveys of knowledge, experiences and opinions of experts, adult service providers, autistic adults and carers regarding local care practices, perceived service gaps, examples of local best practices, and suggestions for improving existing care strategies. Survey questions were derived from published adult services and care recommendations and answer choices were designed to gauge how closely the respondent believed the local situation 'fit' the recommendations.

Results: Local information searches yielded complex views of variation in services organization across the EU at the national, regional, and municipal levels for the public and private sectors. The number and geographic distribution of autism-specific organizations providing services is highly diverse across countries, but with geographic clustering in major urban areas and capital cities. There is considerable variation in the public-private sector balance in services provision both between and within countries. The private sector appears to be the core knowledge and competence base in adult services and in many countries is the main provider of autism-specific adult services. Even within countries, however, there may be significant inequalities in the public and private coverage among different regions and the level of development and specialization of the services offered by private organizations may be limited.

Conclusion: Services delivery for autistic adults in the EU rests in part on the balance between public and private sector contributions. Final study results will support EU policy makers and service providers on strategy development for autistic adult services.



### 3261 - Autism and self-harm: preliminary findings from the Stockholm Youth Cohort

Dr Isidora Bubak

Objectives: To determine the relationship between ASD and self-harm in a large total population study. To investigate risk and protective factors for self-harm in ASD, with emphasis on comorbid intellectual disability and ADHD.

Methods: Total population study using the Stockholm Youth Cohort (N=696,612). Prospectively recorded data for probands followed-up from 0 to a maximum of 27 years by 2011, and their first and second-degree relatives, was collected through record linkage. A total of 11,663 individuals with ASD were identified. Hospital admissions with discharge diagnoses ICD-10 X60-X84 and Y10-Y34 denoted self-harm. We used multivariable Cox proportional hazards regression models to estimate hazard ratios (HRs) with 95% confidence intervals (CIs) of self-harm, overall and categorized as self-harm by poisoning, self-cutting, severe self-harm (including hanging, strangulation, firearm, drowning, jumping from high place/in front of moving objects) versus other types of self-harm.

Results: A diagnosis of ASD was strongly associated with risk of hospital admission for any self-harm

(adjusted HR 4.5, 95% CI 3.8-5.4), self-poisoning (aHR 4.6, 95% CI 3.7 TO 5.6), self-cutting aHR 5.6 (95% CI 3.8 to 8.3) and severe self-harm (aHR 5.7 95% 2.5-13.0). This risk increase was even further marked for ASD with co-morbid ADHD for any self-harm (aHR 8.5, 95% CI 7.0-10.3), self-poisoning aHR 7.6 (95%ci 6.2 to 9.2), self-cutting aHR 9.6 (95%CI 6.6 to 13.9) and severe self-harm aHR 16.1 (95% CI 8.6 to 30.4). In contrast, ASD with ID was not associated with hospital presentations for self-harm.

Conclusions: These preliminary findings indicate that individuals with ASD have an elevated risk for engaging in self-harm in adolescence and young adulthood, and particularly in severe self-harm. Co-occurring ADHD appears to aggravate this risk, which suggests that identification and treatment of ADHD in ASD may be important for suicide prevention. Co-occurring ID, on the other hand, appears protective. Overall, patients with ASD should be considered a risk group for self-injurious behaviours particularly severe self-harm and should be given special attention in clinical settings



## 3267 - Autism and depression in young adulthood: cohort studies in Sweden and England

Dheeraj Rai

Objective: To assess the association between autism/autistic traits and adult depression in two large population cohorts with complementary strengths.

Methods: In the Stockholm Youth Cohort, we assessed the risk of a depression diagnosis in young adulthood in children with autism as compared to the general population, and their non-autistic siblings. In the Avon Longitudinal Study of Parents and Children (ALSPAC), we studied the trajectory of depressive symptoms (using the Moods and Feelings Questionnaire), and relative risks for depression at age 18 years (measured by the Clinical Interview Schedule-Revised) in relation to four dichotomised autistic trait measures known to optimally predict an autism diagnosis in ALSPAC: the Children's Communication Checklist (coherence subscale), the Social and Communication Disorders Checklist, a repetitive behaviour measure, and the Emotionality, Activity and Sociability scale (sociability subscale). We used structural equation models to estimate the mediating effect of bullying in adolescence in the association between autistic traits and depression at age 18 years.

Results: An autism diagnosis was strongly associated with a diagnosis of depression in young adulthood [adjusted RR 3.7 (95% CI 3.5-3.9)] in the Stockholm Youth Cohort. Individuals with autism were over two fold more likely to have a diagnosis of depression in young adulthood when directly compared to their non-autistic siblings [adjusted OR 2.6 (1.9-3.5)], who were themselves at a higher risk of depression than the general population. In ALSPAC, children with all trait measures of autism had higher rates of depressive symptoms at age 10, but the social communication trait had the strongest association with a depression diagnosis at age 18 [adjusted RR 1.56 (1.02 to 2.40)]. Bullying in adolescence accounted for 42% of the total estimated association between low social cognition and depression at age18 years in ALSPAC. Conclusions: Taken together, the findings suggest that children with autism are at a higher risk of depression in young adulthood than the general population, and that social communication impairments may be a key autistic feature in relation to adult depression. Despite the potential role of a genetic predisposition to depression, the substantial role of bullying as a potentially mediating mechanism suggests that this may be a target for intervention and preventative action against depression in young people with autism.



3276 - The moderating effect of comorbid psychiatric disorders on outcome of the group based SOSTA-FRA intervention for children and adolescents with Autism Spectrum Disorder

Christine Freitag

Introduction and objectives: Autism specific group based social skills training has been repeatedly shown to improve parent rated social skills and social responsiveness in high-functioning children and adolescents with Autism Spectrum Disorder (ASD). Besides autism symptom severity, IQ, and gender, predicting and moderating factors of intervention outcome rarely have been studied despite high variability in individual gains of social responsiveness by different interventions. Here, we present results of a secondary, exploratory analysis of the large SOSTA-net trial with regard to the impact of comorbid psychiatric disorders and psychotropic medication on intervention outcome.

Methods: N=228 ASD individuals aged 8-19 years old were randomised to SOSTA-FRA or treatment as usual. Comorbid psychiatric disorders were diagnosed by a structured interview on DSM-IV TR disorders. Primary outcome was the parent rated Social Responsiveness Scale (pSRS). A likelihood-based mixed model repeated measures (MMRM) analysis of covariance with predictors and moderators (interaction with intervention) was performed.

Results: Comorbid ADHD and psychotropic medication with methylphenidate showed an influence on treatment outcome in the SOSTA-FRA group.

Conclusions: Secondary analyses of large scale intervention studies in ASD support a better individual prediction of gains in social responsiveness by intervention.

Trial registration: ISRCTN94863788



#### S01-06: Prenatal drug exposure and its effects on neurodevelopment

Dr. Marcela Mezzatesta infant mental health center

The symposium will begin with a presentation focusing on the interaction of genes / environment and neurobiological consequences of prenatal exposure to drugs. Secondly, a review of the different types of fetal alcohol syndrome and related disorders, followed by the relationship between prenatal exposure to cannabis and its effects on neurodevelopment. Finally, a review of the current literature on prenatal exposure to cocaine and its consequences will be presented.



3025 - Interaction between constitutional factors and environmental factors in neurodevelopmental disorders in children exposed to substances of abuse during the prenatal period.

Associated Psychiatrist - Drug Adicction Department - Vall D'Hebron Hospital -Barcelona Nieves Martinez Luna

OBJECTIVES. Substance abuse in pregnancy remains a major public health problem. Prenatal drug exposure may affect fetal development and infant outcomes, particularly when used in combination. This review will focus on and attempt to clarify the existing literature regarding the association of substance abuse on the neurodevelopment and the long-term implications in exposed offspring, as well as the interaction between constitutional and environmental factors in this population.

METHODS. Systematic review of available English literature using the PubMed database of all peer-reviewed articles on the subject.

#### RESULTS.

A total of 135 articles were included in this review.

In animal models the relationship between intrauterine exposure to alcohol, tobacco or other drugs and the subsequent development of behavioral alterations has been easily established. However, there is less evidence in humans.

Alcohol was the most common substance associated with fetal anomalies, particularly facial dysmorphisms and alterations in the central nervous system development.

In general, substance abuse/polydrug abuse in pregnancy has been associated with adverse long-term outcomes in infant growth, behavior, cognition, language and achievement.

Adverse maternal environments associated, risky behaviors, lack of access to the mental and addiction health system, lack of adequate prenatal follow-up, are related to mental health consequences in exposed children. It is also difficult to contemplate the genetic vulnerability contributed by parents, the drug exposure, and the influence of external factors.

Limited availability of well-designed trials exist. This is due to both clinical and methodological difficulties to study this population, the lack of adequate detection and quantification of drug/drugs use, the access of drug-dependent women to the specific health care and treatment, the variable abstinence periods.

CONCLUSIONS. The reviewed literature suggests that drug exposure during pregnancy may increase the risk of congenital anomalies and long-term adverse effects in exposed children and adolescents, despite of many confounders associated with drug use. These findings also highlight the importance of a multidisciplinary approach for appropriate counseling due to the immediate and long-term risks of substance abuse in pregnancy.



## **3026 - Functional impairment in patients with Fetal Alcohol Spectrum Disorders (FASD)**

Clinical Psychologist, Phd. Department of Psychiatry. Vall d'Hebron University Hospital. Associate P Raquel Vidal

Objectives. Fetal alcohol spectrum disorders (FASD) is a continuum of physical, cognitive and behavioral disabilities caused by prenatal alcohol exposure. The objective was to review the literature on functional impairment in these patients.

Methods. the MEDLINE and PsychINFO electronic databases were searched using the terms FASD AND neuropsychological function OR neurobehavioural impairment OR physical features.

Results. 143 published studies met inclusion criteria for the review. 52 studies were selected, including empirical studies, reviews and meta-analysis.

Conclusions. Results indicated that the physical features of FASD include a pattern of minor facial anomalies, growth deficiency, deficient brain growth or abnormal brain neurophysiology. People with FASD present cognitive deficits on executive functioning, learning ability, visual-spatial functions, and behavioral problems such as self-regulation (mood regulation, attention deficit and impulse control). Patients with FASD are at a greatly increased risk for secondary disabilities including poor adaptive functioning, school failure, inappropiate sexual behaviour, delinquency, substance use disorders and other mental health disorders.



#### 3027 - Prenatal cannabis exposure and its developmental effects

Child and Adolescent Psychiatrist - Infant and Adolescent Mental Health Centre L'Hospitalet de Llobr Marcela Mezzatesta Gava

Objectives: Our first aim is to describe the prevalence of cannabis use in pregnant women, perceived availability, risk perception and the relationship between prenatal exposure to cannabis with developmental and psychiatric disorders, providing the results of a comprehensive and up-to-date systematic review. Finally, we aim to increase not only the scientific knowledge among the attendees but also to highlight the importance of designing prevention strategies in this area.

Methods: Systematic review. We reviewed Spanish epidemiological studies of the National Plan on Drugs and articles on the relationship between early exposure to cannabis and developmental and psychiatric disorders. A search was made in PubMed database until December 2016, in English and Spanish, using the following keywords: cannabis, early consumption, prenatal exposure, pregnancy, risk factors, mental disorders. We detected 105 potentially eligible articles to review. Fifty-four articles were eliminated due to: small sample size, design errors, methodological biases, absence of significant results. Finally, 51 articles were included in the review, of which 4 focus on the prevalence of prenatal exposure to cannabis, 7 on methods to detect consumption in pregnant women, 27 on the relationship between exposure to cannabis and neurodevelopmental/psychopathological sequelae in exposed children and adolescent, 7 molecular studies and 6 studies in rodents.

Results: Cannabis use in pregnant women is frequent but poorly studied. Prenatal exposure to cannabis has been related to the presence of affective symptoms and Attention Deficit Disorder and Hyperactivity (ADHD) in exposed children.

Conclusions: It is important that primary care and mental health professionals, who assist women during childbearing age, can explain the relationship between prenatal exposure and the presence of developmental and mental disorders.



#### 3041 - Prenatal Cocaine Exposure. What do we know and what do we ignore?

Child and Adolescent Psychiatrist - Infant and Adolescent Mental Health Centre L'Hospitalet de Llobr Victor Ribes Carreño

Objectives. The purpose is to examine the recent literature on the use of cocaine in the perinatal period (prenatal cocaine exposure, PCE), its effects on maternal health and perinatal complications, neurobehavioral functioning, psychiatric disorders and speech and language development in children and adolescents.

Methods. Systematic review. Articles were obtained from PubMed until December 2016, with the following keywords: cocaine, prenatal drug, substance or cocaine exposure, maternal drug use, prenatal exposure, pregnancy, risk factors, mental disorders.

Criteria for inclusion were empirical research on children and adolescent prenatally exposed to cocaine, (ages 6 to 11 and 11 to 19), non-exposed comparison group, peer-reviewed, english-language journal. Studies including subjects with serious medical disabilities were excluded. 51 studies were finally reviewed. 42 were included, and 9 were excluded due to methodological/design biases.

Results. The long-term effects associated with prenatal cocaine exposure on cognitive, motor, and language development, have been small, with some studies reporting positive findings and some studies finding little or no effects. Due to cognitive impairment, prenatal cocaine exposure has significant negative associations with sustained attention and behavioral self-regulation in some studies. This inconsistency is likely related to the confounding effects of the postnatal environment, including dysfunctional parenting and unstable and chaotic home environments, violence exposure and frequent maternal polysubstance use.

Conclusions. Many health problems associated with the perinatal period can be prevented with adequate and timely medical care or intervention. Several variables are associated with adverse maternal and infant outcomes, in addition to the direct effects of drug exposure in utero. Furthermore, environmental variables play an important role in moderating and explaining the effects of PCE on children's and adolescent's functioning. Thus, it is difficult to discern the effect of a specific substance in isolation. This knowledge may be used to make better decisions in order to choose the appropriate treatment for these families.



## S01-07: Developing Brain Plasticity, Biomarkers and Treatment in Pediatric Bipolar Disorder

Professor and Director, Pediatric Mood Disorders Program Mani Pavuluri University of Illinois at Chicago

Objectives:Pediatric bipolar disorders(PBD) presents with high comorbidity, and poor psychosocial functioning. The first episode of the disorder is always almost depression and difficult to clinically differentiate the symptoms of depression of BD from those of the unipolar depression(UD). Identifying biomarkers during depression may help facilitate early diagnosis and appropriate treatment interventions. Early onset biomarkers could be change prior to the conversion to BD and can be detected in the genetically at-risk population. Active model of psychoeducation of brain changes in PBD and impact of medications will be presented to help clinicians who can then educate families to grasp how cognitive and emotional domain dysfunction is addressed. The symposium addresses (1) Brain and peripheral epigenetic markers of at-risk and youth with BD, and pharmacotherapy impact on brain plasticity, (2) identifying bipolar depression in terms of neural markers and clinical indicators(3) a model for translation of science to service in educating families on brain changes in PBD and an evidence based model for neuropharmacotherapy, and (4) CBT model to reverse mood dysregulation.

Methods: We will review (1) our work on early neuromarkers of neuroplasticity and environmental, and genetic influences and treatment of the disorder,(2)findings from functional neuroimaging studies(FNS) in youth with BD versus UD,(3)findings from neurocognitive and FNS that are relevant to educate families towards assessment and intervention, (4)neuroscience informed CBT will be presented.

Results: There is a pattern of increase in biomarkers on long-term treatment with medications.BD offspring group showed significantly more family dysfunction with the association between the BDNF genotype and anxiety symptoms. Neural activity during processing of emotion processing and working memory can help differentiate BD depression from UD in adolescents. Cognitive circuitry impairment across multiple domains impact PBD and experimental pharmacotherapy probes revealed distinct mechanistic changes in emotion regulation.CBT was feasible and acceptable.

Conclusion: Neuroscience can serve as a bridge to educate on the complexity of the illness and help formulate pharmacotherapy in psychosocial, academic, and combination interventions. Early neural markers can help early recognition and differentiation. The CBT models are useful for emotional regulation.



## 2926 - Effects of Early Age, Duration and Treatment on Neuroplasticity in Pediatric Bipolar Disorder

Prof. Dr. Neslihan İnal Emiroglu DOKUZ EYLUL UNIVERSITY

Objective: Knowledge on neuroplasticity in childhood and adolescence, and treatment and illness effects on neuroprogression are rapidly evolving.

Method: We will review our work on early neuromarkers neuroplasticity such as Brain derived nerve growth factor (BDNF), nerve growth factor (NGF), environmental, and genetic influences and treatment of the disorder on neuroplasticity in pediatric bipolar disorder (BD) and bipolar offspring. We utilized molecular genetic, epigenetic and structural imaging methods to probe the disease progression.

Results: According to our research findings, left amygdala volüme failed to increase with illness duration unlike healthy controls where bilateral increase was seen in amygdala. However, treating with mood stabilizers showed increase in BD, and such increase correlated with BDNF increase over time. The Met allele of BNDF was associated with reduced left hippocampal volume of patients with BD. Furthermore, right hippocampal volüme in BD correlated with lithium treatment in BD. There is a pattern of increase in NGF and BDNF levels on long-term treatment with medications. Also, BD offspring group showed significantly more family dysfunction when compared with the healthy group and the family dysfunction moderated the association between the BDNF genotype and anxiety symptoms.

Conclusion: The correlations between amygdala and hippocampal volumes and BDNF levels might be an early neuromarker for diagnosis and/or treatment response in adolescents with BD. High risk population with poor family functioning may illustrate epigenetic changes that may indicate highrisk for BD.



2928 - Translating Brain Function for Families and Neuropharmacotherapy: The Purpose to Serve.

Prof. Dr. Mani Pavuluri University of Illinois at Chicago

Objective: Functional mechanistic and behavioral frameworks of Research Domain Criteria (RDoC) (e.g. emotion processing, reaction to negative valence, reward or positive valence, attention-impulse control-response inhibition, working memory and executive function targeting cognitive and emotional system interface) differentially impact children presenting with affective and cognitive problems in pediatric bipolar disorder (PBD). Understanding these domain difficulties in addition to diagnoses will help clinicians and families best design personalized and precise pharmacotherapy interventions.

Method: We will review established findings from neurocognitive and functional magnetic neuroimaging studies that are relevant to clinical practice and show how they can be utilized to educate families towards assessment and intervention. Results: Findings revealed that (1) Cognitive circuitry impairment across multiple domains impact PBD and comorbid conditions such as attention deficit hyperactivity disorder (ADHD); (2) Experimental pharmacotherapy probes revealed distinct mechanistic changes in the circuitry underlying emotion processing and regulation, working memory, response inhibition and impact cognition and emotion regulation. Nested in this model, an evidence based pharmacotherapy model will be presented. Conclusion: As our field develops further, understanding of the mechanisms underlying pediatric psychopathology in PBD with or without ADHD can offer more effective ways to translate these findings for our patients and families via clinicians. Neuroscience can serve as a bridge to educate on the complexity of the illness and help formulate pharmacotherapy in specific alongside psychosocial, academic, and combination interventions.



# 2931 - RAINBOW: Cognitive Behavior Therapy for Pediatric Bipolar Disorder (PBD)- Adaptation to Portuguese Families

PhD. Clinical Psychologist Sonia Fernandes Department of Psychiatry, Beatriz Ângelo Hospital

Objective: A study in 2010 indicated that Portugal has the highest prevalence of mental health disorders as compared to other European countries. Also, research on PBD treatment has not been translated into Portuguese.

Method: Our aim was to enhance the core RAINBOW curriculum and ingredients with adaptation to Portugal: (1) To enhance education, awareness, and acceptance of PBD; (2) To empower parents regarding school difficulties, we added a "Dealing with School Issues"; (3) To address the psychosocial needs of Portuguese families, we added a session on emotion expression. Participants in the trial include two groups that have completed the programme ages 6 to 15 and 11 to 14, with bipolar spectrum disorders and their parents. Assessment measures were chosen to parallel those used in the RAINBOW Group Program in the US (West et al., 2007), using established Portuguese versions of the measure or using translated measures. Results: Results suggest that the RAINBOW programme was feasible and acceptable to Portuguese families: 100% of the families maintained in the programme and completed a mean of 9/10 sessions. Regarding symptoms and functioning, parents reported significant improvement in their child's behavior at school and at home, reductions in conflict between child and parents, and reductions in parental conflict.

Conclusions: We have trained in and adapted the RAINBOW model to meet the unique needs of the Portuguese PBD population. Evidence suggests that RAINBOW is feasible and acceptable to Portuguese families.



### 2934 - Challenges in identifying bipolar depression in youth: Neural markers and clinical indicators

Associate Professor Rasim Somer Diler University of Pittsburgh, Western Psychiatric Institute and Clinic of UPMC

Objective: It is difficult to clinically differentiate the symptoms of depression of Bipolar Disorder (BDd) from those of the depression of major depressive disorder (UDd) and few studies investigated biomarkers of BDd. Identifying neural markers during depression may help facilitate early diagnosis and appropriate treatment interventions.

Methods: Three functional neuroimaging studies compared BDd adolescents with age- and sex-matched UDd and healthy control (HC) adolescents during the performance of Go/NoGo, gender labeling emotion processing task, and emotional face N-back task (N=32, mean age=15.9).

Results: Left anterior cingulate (ACC, Brodmann's Area (BA) 32) activity relative to HC was significantly higher only in BDd –not UDd- adolescents during the NoGocondition. BDd adolescents, relative to UDd, showed significantly lower activity (e.g., insula and temporal cortex, and frontal precentral cortex) to intense emotional faces especially with happy faces. During the emotional face distractors condition of 2n-back task, adolescents with BPd had lower activity in lower right and left posterior cingulate (BA 30) compared to UDd youth and in right posterior cingulate (BA 31), right anterior cingulate (BA 24), left supplementary motor (BA 6) regions compared to both UDd and HC youth. Connectivity between ventrolateral prefrontal cortex and amygdala was reduced during happy face distractors 2nback condition. In contrast, when there were no emotional face distractors of the 2n-back high memory load of the task, youth with BPdhad higher activity in anterior cingulate (BA 32) compared to UDd and HC youth.

Conclusion: Our findings showed that neural activity during processing of emotion processing and working memory with positive emotional stimuli and response inhibition can help differentiate BDd from UDd in adolescents. Furthermore, the presence of emotional distractors altered the direction of the difference between groups during working memory. We need larger longitudinal studies to better understand clinical correlates of mood status specific versus disease specific neural activity in depressed youth.



#### **S01-08: Novel Approaches and Treatments for ADHD**

Prof. Fiona McNicholas UCD Geary Institute, University College Dublin

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common disorders treated in Child and Adolescent Mental Health Services in many countries, but there is huge variation in prevalence. This symposium will include four (4) presentations which will critically review difficulties in estimating prevalence rates, including the possibility of undiagnosed ADHD in adulthood. In addition, the treatment issues such parental attitudes on deciding to commence medication & a review of treatment outcomes where availability of medication is limited.



### 2609 - How to Cut the Cake? Estimating ADHD prevalence and implications for service

Dr. Aleksandra Gronostaj-Miara St John of God Research Foundation

Objective: The aim of this study is to establish different possible estimates of ADHD prevalence in 9 year olds in Ireland, based on Growing Up in Ireland dataset, and to discuss the consequences of varying estimates for planning service provision. Reliable assessments of the incidence of mental health disorders in youth are of great importance for shaping public policy and the development of mental health services. Rates reported worldwide vary greatly depending on the methods of data collection and definitions of caseness used. A reliable estimate of ADHD prevalence rate for Ireland is currently not available.

Methods: 'Growing Up in Ireland' is the largest study commissioned by Office of the Minister for Children and Youth Affairs to date. It follows two cohorts of children, 11,000 infants and 8,500 nine year olds, in an effort to improve the understanding of all aspects of their development. For the purpose of current analyses, data from the first assessment of the older cohort was used. The dataset allows for applying a number of different strategies of estimating ADHD prevalence rate, that utilise a standardised screening tool, Strengths and Difficulties Questionnaire (SDQ), completed

by primary caregivers and teachers, and an indication made by primary caregivers whether the child had ADHD. With the SDQ Hyperactivity/Inattention scale either old or new cut-off points for high scores can be applied. Parents' and teachers' respective ratings can be regarded separately or combined according to both 'or' and 'and' rules. The indication whether the child had ADHD could be used with or without the additional information on the presence of a formal diagnosis.

Results: There was wide variability in prevalence rates ranging from 0.83%, when a criterion of diagnosis made by a professional was used, through 7.2% when only parent-rated SDQ score with new cut-off points was considered, up to 19% when SDQ old cut-off points with 'or' criterion combining parent's and teacher's assessment was applied.

Conclusions: Close to twentyfold difference in possible prevalence estimations found in this study highlights an urgent need for establishing one, reliable method of prevalence measurement. It is not only of academic interest, but great practical impact, as accurate detection of the prevalence rates is essential for assessing service requirements and planning service provision.



## 2610 - Epidemiology and comorbidity of ADHD in Adult psychiatric outpatient clinics

Dr. Dimitrios Adamis

Objectives: Previous studies by using screening tests have reported high rates of ADHD among adult mental health service (AMHS) users. In this study we aim to estimate the prevalence of ADHD by using in depth assessments and the comorbidity with other mental disorders. Methods: All consecutive patients attending any of 5 Sligo/Leitrim AMHS and were agreed to participated were screened by using the Adult ADHD Self-Report Scale (ASRS) and the Wender Utah Rating Scale (WURS). Exclusion criteria applied were: Age: less 18 or above 65, Illiterate, non- English speaking patients. Those who were scored positive in both scales were tested further with: a) Conners' Adult ADHD Diagnostic Interview for DSM-IV (CAADID) and b) Mini International Neuropsychiatric Interview (MINI v.5)

Results: From 634 participated in the first stage 131 (20.6%) were identified as caseness. In a second phase (ongoing) 72out of the 131, have been approached and 26 had been assessed with CAADID. The rate of ADHD was 84.6% (22 out of 26). Male 16 (61.5%) and mean age 42.88 (SD 10.48). Projecting the rates it is estimated that 17.5 % of AMHS users have ADHD. Main comorbidities were: Mood disorders 75.0%, generalized anxiety, phobias, panic disorders 41.7%, OCD 25%, alcohol and drugs 20.8%. Only 3 cases were already diagnosed with ADHD. Conclusion: While recall bias and the possibility of overlapping symptoms with other major psychiatric disorders in adulthood need to be considered, the finding suggests a very high rate of ADHD in AMHS and a low number previously identified. It becomes apparent that ADHD is under recognised and often untreated in AMHS. ADHD in adults is a clinical priority, and optimal treatments taking into account the comorbid conditions needs to be considered.



## **2612 - Psychopharmacotherapy of ADHD without psychostimulants: experiences from Croatia**

Tomislav Franić

Objectives: Management of ADHD consists of nonpharmacological options, including behavioural therapy (BT), and pharmacological options, including psychostimulants and nonstimulants. Psychostimulants are considered the first-line treatment for ADHD. However, the availability of and access to treatments vary across European countries. Psychostimulants and nonstimulants for the treatment of ADHD are not reimbursed by the Croatian Health Insurance. Self-payment for these drugs is very rare. This study aimed to describe patterns of psychotropic medication prescriptions by Croatian child and adolescent psychiatrist for the treatment of ADHD.

Methods: Retrospective chart review was performed at three major Croatian outpatient child and adolescent psychiatric services in Zagreb, Osijek and Split. Data on sociodemographics, drugs prescribed, and comorbidity were collected in all patients diagnosed with ADHD after their first multidisciplinary team assessment between January and June 2016. Drug treatment data were identified by medication class and subclass and were analyzed in relation to gender and comorbid psychiatric diagnosis.

Results: The mean age of patients (87.2% males) was 11.7 (3.6) years. At the time of diagnosis 63.4 % of patients had at least one comorbid disorder. Only 15.4 % of patients were prescribed psychotropic drugs, whereas 73.1% were recommended psychotherapy and 11.5 % were not recommended any treatment. Psychostimulants were prescribed in only 4.4% of patients. The most common drug classes prescribed were atypical antipsychotics, followed by antidepressants, typical antipsychotics and anxiolytics. Antipsychotics were prescribed more frequently in boys and in patients with comorbid behavior disorders (ODD or conduct disorder), while antidepressants were prescribed more frequently to patients with comorbid anxiety and mood disorders and with no gender differences.

Conclusion: These results suggest that psychostimulants are prescribed to a minority of patients with ADHD in Croatia who can provide self-payment. In Croatia treatment of ADHD is limited to psychosocial interventions. Psychotropic drug prescription in patients with ADHD in Croatia is mainly used to treat comorbid conditions; antipsychotics for treatment of behavioral disorders (severe ODD and CD) and SSRI for treatment of anxiety and mood disorders. Advocacy by mental health professionals to policy makers is needed to make available evidence-based treatment for ADHD in Croatia.



#### 2613 - A qualitative study of parental decision to use medicines in Attention-Deficit-Hyperactivity-Disorder (ADHD)

Michelle Flood Royal College of Surgeons of Ireland

Objectives: ADHD medicines carry well established and significant safety risks in children. Despite these risks they remain a cornerstone of treatment and prescribing rates are increasing. We sought to explore the role of safety concerns and side effects in the parents' decision to treat their children with medicines and their experience of side effects with treatment.

Methods: In-depth semi-structured qualitative interviews were conducted with ten parents of children receiving ADHD medicine treatment. Verbatim transcripts were inductively analysed using a thematic approach and key themes were identified.

Results: Concerns about side effects were reported by all parents with three key themes emerging. Fear of side-effects was reported by all parents, with the initial concern relating to the unknown effects of a long-term treatment that could affect the developing brain. A perception of lack of an alternative option was a key theme, with the decision to seek help often coming at a time of perceived crisis, or pivotal educational moment meaning there was a need for some treatment. Medication was the only option reported to be offered in the majority of cases, making the consideration of side-effects less relevant. A balance of risk and benefits is constantly recalibrated by parents as therapy is commenced and continued, with social, family and educational improvements noted as important and perceptible benefits. Risks were noted by all parents as being a concern, but to be expected and somewhat tolerated particularly those that affected sleep, initial worsening of symptoms and appetite/weight loss but monitoring means that the concern of other side effects are lessened.

Conclusions: Time pressure and limited information alongside the lack of access to services left parents feeling starting ADHD medicines was their only option, subordinating the concern over side effects to a varying extent. Upon starting treatment, adverse effects were ubiquitous but benefits of treatment were also obvious. While on treatment parents remained concerned about use of medicines and the quest for information was ongoing. Further work is needed to prepare and provide resources and options for parents to allow a fully informed decision to treat children with ADHD medicines.



2614 - ADHD: Is There an App For That?

David Hogan

Objective: There is increasing focus on the usage of mobile software applications (Apps) across a wide range of health conditions. Despite showing promise and existing usage, notably for both remote patient monitoring and self-management respectively, there is little published research on Apps for ADHD. We therefore sought to establish what existing Apps are available for ADHD in addition to identifying current usage patterns of Apps in the management of the condition among online ADHD discussion forums users.

Methods: The Google App store was systematically searched using the keyword "ADHD" and relevant apps designed or targeted for ADHD were identified and evaluated. These existing available Apps were further categorised as per functionality. Separately, the three most active online discussion forums for ADHD were identified and systemically searched for posts relating to the usage of Apps in ADHD. All reports within posts of positive usage of a particular App for managing ADHD were quantified.

Results: Thirty-four available Apps specifically for ADHD were identified and these were each compared across review ratings, usage level, functionality and cost. The twelve most frequently reported Apps by positive usage on the forums were separately identified and evaluated. Forum users reported these Apps to be very beneficial to them in managing ADHD.

Conclusions: The majority of ADHD specific apps currently available have poor user reviews and/or low usage levels. Despite this, discussions on online forums suggest extensive usage by users of popular non-ADHD specific apps to assist in managing the condition, particularly for productivity, time and task management. There appears to be a gap for the development of an ADHD specific App incorporating the functionality of the most successful existing apps that are in use. Such an App could then be trialled in a patient population. As a highly cost effective intervention, clinicians should consider whether it may be appropriate to recommend the usage of certain Apps. Though there is not yet an evidence base, individuals report significant benefits in their usage and the functionality of the most popular Apps mirrors that of existing recommended 'pen and paper' interventions already in use for the management of ADHD.



S01-09: Update: impact of nutrition on mental health

Professor Lars Libuda Department of Child and Adolescent Psychiatry, University of Duisburg Essen, Germany

In light of the rapidly growing awareness of the link between nutrition and child and adolescent mental disorders, several recent therapeutic and preventive interventions have focused on specific supplements (e.g. vitamins and long-chain omega-3 polyunsaturated fatty acids) and diets with regard to mental health. First, associations of specific somatic disorders (including obesity, underweight, bowel problems, eczema etcetera) and child and adolescent onset psychiatric disorders (autism spectrum disorder, attention deficit hyperactivity disorder) will be presented to pave the way for the further lectures on the role of nutrition and psychiatric symptoms. Subsequently, the focus will be on specific supplements: Summarizing results from observational and randomized controlled studies an overview is provided about the physiology of n-3 LC-PUFA, the potential mechanisms which may link the n-3 LC-PUFA status with mental disorders, and the current evidence of the effects of supplementation on the symptomatology of mental disorders. With regard to vitamin D, an overview of existing evidence for deficiencies in relation to child and adolescent onset mental disorders, therapeutic effects of supplementation and potential detrimental effects of overdosing will be given. Elimination diets and their proposed mechanisms will be discussed in the light of mental health in children and adolescents: What foods are usually excluded? What are the long term effects? Finally, an overview will be provided about the gut-microbiota-brain axis and its impact on mental health in children and adolescents with attention deficit hyperactivity disorder.



# 2981 - Medical comorbidities in children and adolescents with Autism Spectrum Disorders and Attention Deficit Hyperactivity Disorders: a systematic review

Dr. Jet B. Muskens Karakter Child and Adolescent Psychiatry University Centre Nijmegen, Nijmegen, The Netherlands

Somatic disorders occur more often in adult psychiatric patients than in the general adult population. However, in child and adolescent psychiatry this relation/association is unclear, mainly due to a lack of integration of existing data. To address this issue, we here present a systematic review on the medical comorbidity in two major developmental disorders: autism spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD) and formulate clinical recommendations.

The literature was searched with the PubMed and PsycINFO database (2000 –1 June 2016) using the keywords " (((child and adolescent) AND (Autism OR Attention Deficit Hyperactivity Disorder\* OR ADHD)) AND ("Cardiovascular Diseases"[Mesh] OR "Endocrine System Diseases"[Mesh] OR "Immune System Diseases"[Mesh] OR "Neurobehavioral Manifestations"[Mesh] OR Somatic OR Autoimmune disease OR Nervous system disease OR Infection OR Infectious disease))." Two raters independently assessed the quality of the eligible studies. An additional rater was consulted to resolve any scoring differences between raters. The initial search identified 5218 articles. Based on inclusion and exclusion criteria we selected in total 94 papers as relevant considering the topic. Trial quality was assessed according to a standardized and validated set of criteria and yielded 27 studies for inclusion. This thorough literature search provides an overview of relevant articles on medical comorbidity in children with ADHD and/ or ASD. Future studies should focus on broader evaluation of medical disorders to improve treatment algorithm in this vulnerable group.



### 2985 - Long-chain omega-3 polyunsaturated fatty acids for the prevention and treatment of mental disorders in childhood and adolescence

Professor Dr. Lars Libuda Department of Child and Adolescent Psychiatry, University of Duisburg-Essen

Objectives: Long-chain omega-3 polyunsaturated fatty acids (n-3 LC-PUFA) are discussed as an option for the prevention and treatment of mental disorders. Here, we provide an overview about the physiology of n-3 LC-PUFA, the potential mechanisms which may link the n-3 LC-PUFA status with mental disorders, and the current clinical evidence of effects of supplementation on the symptomatology of mental disorders.

Methods: The results from observational and randomized controlled trials on n-3 LC-PUFA for the prevention and treatment of mental disorders are reviewed with a particular focus on studies in childhood and adolescence.

Results: n-3 LC-PUFA are components of membrane phospholipids with particular high levels in neural tissues. According to their effects on membrane fluidity and the resulting impact on cell signaling, as well as their part as key metabolites in inflammatory pathways, a link between n-3 LC-PUFA status and mental disorders seems plausible. Case-control studies revealed lower blood levels of n-3 LC-PUFA in patients with mental disorders such as major depression, attention-deficit/hyperactivity disorder (ADHD), anxiety disorders, and autism compared with healthy controls. Up to now, randomized controlled intervention studies mainly focused on effects of n-3 LC-PUFA supplementation on depressive disorders in adulthood and ADHD in childhood. Although methodological limitations of underlying studies are a matter of intensive debate, there is evidence for small beneficial effects on symptomatology of major depression and ADHD without substantial side effects. A recent intervention trial in depressive adults indicated that effectiveness of n-3 LC-PUFA supplementation might depend on the presence of a detectable inflammation status at baseline.

Conclusion: There is increasing evidence that optimizing the n-3 LC-PUFA status via increased dietary intake or supplementation is a promising approach for both, the prevention and treatment of mental disorders, especially major depression and ADHD. Future research needs to consider known limitations from earlier studies such as small sample sizes, short intervention periods, and the neglected screening for low blood levels of n-3 LC-PUFA at baseline. Another aim should be the identification of vulnerable subgroups with a particular benefit of n-3 LC-PUFA supplementation such as patients with (sub)chronic inflammation.



#### 2988 - Vitamin D and mental health in children and adolescents

Dr. Manuel Föcker

Department of Child and Adolescent Psychiatry, University of Duisburg-Essen

#### **Objectives**

While vitamin D is known to be relevant for bone health, evidence has recently accumulated for an Impact on mental health. In order to identify the potential benefits and limitations of vitamin D for mental health, an understanding of the physiology of vitamin D, the cut-off values for vitamin D deficiency and the

current status of therapeutic trials is paramount.

Methods

Results of a systematic PUBMED search highlight the association of vitamin D levels and mental health conditions. Here, we focus on children and adolescents studies as well as randomized controlled trials on

depression in adults.

Results

41 child and adolescent studies were identified including only 1 randomized controlled and 7 noncontrolled supplementation trials. Overall, results from 25 cross-sectional studies as well as from 8

longitudinal studies suggest a role of vitamin D in the pathogenesis of mental disorders in childhood and adolescence. Findings from supplementation trials seem to support this hypothesis. However, randomized controlled trials in adults revealed conflicting results. Conclusion

Randomized controlled trials in childhood and adolescents are urgently needed to support the potential of vitamin D as a complementary therapeutic option in mental disorders. Study designs should consider methodological challenges, e.g. hypovitaminosis D at baseline, appropriate supplementation doses,

sufficient intervention periods, an adequate power, clinically validated diagnostic instruments, and homogenous, well-defined risk groups.



#### 2992 - Elimination diets in child and adolescent onset mental disorders

Professor Dr. Nanda Rommelse Radboudumc dep. Psychiatry / Karakter child and adolescent psychiatry university center / Donders Institute of Neuroscience, Nijmegen, the Netherlands

An overview of elimination diets and their proposed mechanisms will be provided. The following questions will be discussed. What foods are usually excluded? What are the long term effects?



# 3417 - Gut microbiota-brain axis and its relevance to child and adolescent onset psychiatric disorders

Professor Dr. Yolanda Sanz

Bidirectional communication between the gut and the brain (gut-brain axis) is well recognized with the gut microbiota viewed as a key regulator of this cross-talk. Currently, a body of preclinical and to a lesser extent epidemiological evidence supports the notion that host-microbe interactions play a key role in brain development and function and in the etiology of neurodevelopmental disorders with an onset on childhood and adolescence. Early-life events and shifts away from traditional lifestyles are known to impact gut microbiota composition and function and, thereby, may increase the risk of developing neurodevelopmental disorders. Attention deficit hyperactivity disorder (ADHD) is the most prevalent neurodevelopmental disorder in childhood but its etiology is still unclear and its diagnosis and treatment challenging. Different factors associated with the risk of developing ADHD and/or linked to different ADHD manifestations have also been connected to shifts in gut microbiota composition in independent studies, suggesting a link between the microbiota and this disorder. Preliminary human studies also suggest that dietary components modulating gut microbiota may also influence ADHD development or symptoms, although further investigations are warranted to confirm this hypothesis. Here, we firstly review the potential mechanisms by which the gut microbiota may regulate the brain-gut axis and influence behavior and neurodevelopmental disorders. Secondly, we discuss the current knowledge about the different factors and dietary components reported to be associated with the risk of developing ADHD or its manifestations and with shifts in gut microbiota composition. Finally, we briefly highlight the need to progress in our understanding of the potential role played by the gut microbiota in ADHD, since this could open new avenues for early intervention and improved management of the disease.



S01-10: From minding bodies to embodied minds: a mentalization-based framework for the understanding and treatment of bodily-related psychopathologies in youths

PhD Deborah Badoud

Psychological issues that involve physical symptoms (e.g. somatization, tics) and that indirectly (e.g. eating disorders) or directly (e.g. non-suicidal self-injury) typically appear during adolescence. Such disorders have ascended to the forefront of the practice of mental health specialists. Nevertheless, whilst the question of the relationships between one's immaterial mind and the concrete entity of the human body has been widely addressed in famous philosophical writings, it has been relatively marginalized by psychology, leaving conceptual and empirical gaps in the current literature.

This symposium aims to offer an update of our understanding and treatment approach of individuals with bodily-related psychological symptoms and disorders. It will focus on cutting-edge clinical and experimental data revealing that the mentalization-based model provides a relevant theoretical and empirical framework to improve our knowledge on those issues. The first talk will propose an original understanding of psychopathologies characterized by severe body image disturbances (e.g. anorexia), based on the sensibility paid to afferent information arising from within the body that affects the cognition or behaviour of an organism. The second presentation will explore the associations between the sensibility to one's own internal bodily signals, the mentalization of self and other's affective states and the expression of concrete symptoms (i.e. somatic complaints) from childhood to young adulthood. The third speaker will investigate the association between the capacity to mentalize self and other's emotional states and non-suicidal self-injury adolescents with borderline personality disorder. The fourth and fifth talks will exhibit recent advances in mentalization-based treatment of patients with, respectively, persistent somatic complaints and tics and/or Tourette syndrome.



2964 - From the body's viscera to the body's image: the role of interoception in body-image concerns and psychopathology

Prof. Manos Tsakiris Lab of Action & Body

Objectives Interoception, or the visceral sense of the internal body and its organs, as well as body image components, namely the thoughts, perceptions and feelings one may have about one's own body are two fundamental mechanisms for a sense of personal identity and one's well being. However, the relationship between the two concepts remains poorly understood. Methods We here review recent behavioural and neuroimaging evidence from clinical and non-clinical populations to propose that basic interoception processes may crucially contribute to the complex formation of body image.

Results Recent behavioural and neuroimaging data suggest a link between interoception and body-image. Lower levels of interoceptive accuracy and interoceptive awareness may contribute to body-image concerns.

Conclusions We provide a potential mechanistic explanation of the link between interoception and body image, which strives to integrate interoceptive and exteroceptive knowledge of the body. The suggested link between interoception and body image can further inform new empirically testable hypotheses on the underlying neurocognitive processes and has relevant clinical implications. If future works consolidates the association between interoception and body image, the individuals with body image distortions may benefit from evidence-based interventions that enhance their capacity to attend to and interpret correctly their internal bodily signals.



2965 - From feeling one's own body to understanding other's mind: The interplay between interoception, affective mentalization and somatisation across development

Deborah Badoud

Objectives Interoception (the sense of the internal body and its organs) and mentalization (the interpretation of the mental states that motivate self and other's actions) are crucial mechanisms for one's well-being and successful negotiation of developmental transitions. Here, we aimed to address two questions typically overlooked by research: i) the link between these two capacities; and ii) their contribution to body-related psychological symptoms, particularly somatic complains arising without a defined organic cause.

Methods We administered two emotion recognition paradigms and several self-report scales to measure distinct aspects of affective mentalization capacities and the degree of functional symptoms in a developmental sample of community participants aged from 8 to 35. The heartbeat counting task was used to assess interoceptive abilities.

Results Results within the young adult sample (N=38, aged 18 to 34 years old, M=22.5, SD=3.95) revealed a significant relationship between interoceptive capacities and emotion recognition accuracy. Participants with lower ability to detect their heartbeats were better at recognizing negative emotions than those with higher performance (respectively, M=.49, SD=.19 vs M=38, SD=.13, t=2.03, p=.05). No difference was found in relation to the recognition of positive emotions (p=.20). Data from the younger participants sample (aged 8 to 18 years old) is currently being collected. We expect age and pubertal stage to be related to interoception and emotion recognition, which, in turn, would be linked with the level of somatic complaints reported by the participant.

Conclusions These data can be interpreted in line with the mentalization-based model. Our results suggest that a lower ability to detect own internal invisible cues (e.g. heartbeats) may promote the development of an over-capacity to infer other people's salient emotional states (i.e. negative) based on the external visible cues. This unbalanced use of internal vs external cues may disrupt the successful mentalization of one's own and other's emotional experience (nature and intensity), paving the way for the emergence of psychopathological manifestations, such as an increased expression of somatic complaints. These links inform new developmental hypotheses and have relevant clinical implications.



2966 - Emotional awareness and self-injurious behaviors in adolescents with borderline personality disorders

Professor Mario Speranza

Background: Adolescents with borderline personality disorders (BPD) may engage in selfinjurious behaviors as a desperate attempt to self-regulate disruptive emotions, especially those elicited by close relationships and attachment related issues including memories of traumatic experiences. Objective: The aim of this study was to investigate the relationships between selfinjurious behaviors and emotional regulation in adolescents with BPD according to their traumatic history. Methods: The sample consisted of 64 female BPD adolescents (mean age = 16.3) issued from the European Research Network on BPD (EURNET BPD). Self-injurious behaviors were assessed with the Ottawa Self-Injury Questionnaire (OSI). Emotion regulation was explored using the Bermond-Vorst Alexithymia Questionnaire (BVAQ). Traumatic experiences were assessed with the Childhood Trauma Questionnaire (CTQ). Results: BPD adolescents with a history of physical abuse and emotional neglect showed lower levels of emotional awareness and higher levels of self-injurious behaviors. Conclusions: Childhood traumatic experiences may weaken emotion regulation strategies Acknowledgments: This research was funded by grants from the Pfizer Foundation for Child and Adolescents Health & by the Lilly Foundation. The work was performed as part of the European Research Network on Borderline Personality Disorders (EURNET BPD).in BPD adolescents and increase the risk of resorting to maladaptive self-injurious behaviors to self-regulate disruptive emotions. The presentation will discuss the clinical implications of these results.



## 2967 - Recent advances in mentalization-based treatment of patients with persistent somatic complaints

Professor Patrick Luyten

Objectives: This presentation aims to offer an update of the mentalizing approach to understanding and treating patients presenting with persistent somatic complaints. Patients that suffer from persistent somatic complaints are notably heterogeneous, and while many of these patients tend to respond well to psychotherapy, a considerable subgroup of these patients are notably difficult to treat, especially on account of the multiple transference and countertransference complexities involved. In this presentation, I will focus on recent advances in theory and technique that might increase the effectiveness of psychotherapy with these patients from a mentalizing perspective.

Methods: A qualitative summary of new research findings that has emerged over the past decade on patients with persistent somatic complaints is presented.

Results: Extant research suggests that patients with persistent somatic complaints tend to suffer from problems in three areas that are each strongly related with impairments in stress and affect regulation: (a) attachment and interpersonal relationships, (b) (embodied) mentalizing and (c) epistemic trust.

Conclusions: Newly emerging research findings have led to substantial changes in our understanding of patients with persistent somatic complaints. These advances have been translated into a systematic treatment approach, i.e., Dynamic Interpersonal Therapy for individuals with functional somatic disorders (DIT-FSD), a manualized, mentalization-based treatment that was developed based on these views. Yet, we also discuss the implications of these findings for other therapeutic approach and for general psychiatric management.



### 2968 - An integrative mentalization-based intervention for adolescents experiencing Tics and/or Tourette syndrome

Dana Lassri

Objectives: Tics and/or Tourette syndrome (TS) is a neurodevelopmental disorder involving motor and phonic tic, that exemplifies an important "mind-body problem". TS often includes complex tics with social relevance, and socially inappropriate behaviours. Recent research suggests that individuals with TS exhibit difficulties involving Theory of Mind, interpersonal reactivity, including a reduced tendency to take others' perspectives, and elevated personal distress in response to intense emotional situations. More specifically, TS is associated with deficits in mentalization capacities, such as hyper-mentalizing (Eddy & Cavanna, 2015). Mentalization is a pivotal aspect of interpersonal relationships and social functioning, and it plays a crucial role in the development of an embodied sense of self. Deficits in mentalization might thus be resulted in elevated interpersonal and emotional difficulties amongst adolescents experiencing Tics/TS and their families. In accordance, psychiatric comorbidities—including mood and anxiety disorders, ADHD, and OCD—are highly common among individuals with TS, tend to emerge early in life, and present major challenges for practitioners (Hirschtritt et al., 2015).

Contemporary mentalizing theory offers a potential integrative framework for treatment, given its focus on the role of social learning, emotional regulation, and solid mentalizing, as well as its considerable empirical support.

Methods: First, the study discusses meta-analyses and qualitative reviews of existing interventions for Tics/TS, with the aim of identifying strengths, weaknesses, and potentially effective components. Building on the above, the study presents an integrative stepped-care intervention for adolescents experiencing Tics/TS and their families, rooted in mentalizing theory and tailored to fit the needs of the different manifestations of Tics/TS (with/without comorbidities).

Results: The proposed intervention consists of three modules, with an assessment component that defines criteria to be referred to the next module: Module-1: A psychoeducational programme—including a guided self-help protocol and three group-sessions; Module-2: Multi-family groups; Module-3: Individual psychotherapy for adolescents with complex comorbidity.

Conclusions: Contemporary mentalizing theory offers a comprehensive integrative framework for a potentially widely implemented stepped-care intervention for adolescents experiencing Tic/TS and their families.



#### S01-11: Child- and Adolescent Psychiatry Training in Europe

Dr. Brian Jacobs UEMS-CAP

High quality training of future child and adolescent psychiatrists (CAP) is crucial to deliver good care and to bring the discipline forward scientifically. However, CAP training remains very diverse, which is particularly noticeable in Europe, where historical roots of the field vary considerably from country to country, while practitioners increasingly use the opportunities to choose their workplace freely throughout the EU. In this symposium we explore the effort of inter-country collaboration and standardization of CAP training from several perspectives:

Firstly we will discuss the process of producing the UEMS Training Requirements published in 2014, which lay down the standards of CAP training throughout the EU.

Secondly (in two separate presentations) we present very recent data from the CAP-STATE study, which was initiated by the ESCAP Research Academy and examined the CAP training schemes in 35 European countries in great detail. The first part of this presentation shows the developments during a10 year time span, when a very similar but smaller study was carried out (with involvement of one co-author in both studies). The second part explores themes not covered previously in greater detail (e.g. trainee involvement, training of trainers, financial issues).

Finally we will present an alternative approach in Australia and New Zealand with the recently introduced Royal Australian and NZ College of Psychiatrists (RANZCP) Competency Based Fellowship Program (CBFP) and how it is used for Child & Adolescent Psychiatry training including description of its various tools such as Observed Clinical Actives (OCAs), Work Based assessments (WBAs) and Entrusbable Professional Activities (EPAs).



2875 - The UEMS-CAP Curriculum- Why and how was this Child & Adolescent Psychiatry curriculum framework developed? What would be the next steps?

Dr. Brian Jacobs

Child and adolescent psychiatry is a medical specialty that overlaps with others in Europe, particularly with paediatrics, neurology and adult psychiatry. Traditional therapeutic orientations, the framework for training as well as the practice of medical specialties also showed marked variation across Europe.

It is a challenge to encourage countries through their aspirations to provide good care for patients using common themes for content and to develop a model of delivery towards which they can work. The aim is to raise standards and facilitate appropriate free movement of highly skilled professionals through Europe.



## 2882 - CAP STATE (The Child and Adolescent Psychiatry - Study of Training in Europe): Part 1: The 10 year follow-up

Dr Sabri Herguner

#### Background:

CAP-STATE, The Child and Adolescent Psychiatry - Study of Training in Europe, began as an ESCAP (European Society of Child and Adolescent Psychiatry) Academy's initiative aimed at understanding the current state of training across ESCAP member countries. Given the rapid changes in CAP services and training in Europe and the advent of new UEMS training requirements in 2014, one of the aims was to provide a ten year follow up of previous research on CAP training in Europe conducted by ESCAP (Karabekiroğlu at al., 2006). Methods:

#### Results:

In this section an overview of training in participating 35 countries will be given, including: A. Country information and training

- B. Recruitment, Training composition and duration,
- C. Training from Theory to Practice, looking at core components of training (formative and summative)

#### Conclusion:

Huge variations in duration and composition and content of training remain and have not changed much in the past 10 years. The positives developments years include the emergence of new curriculae and training programmes. It is evident that there is far greater structural support than was in place ten years ago. A number of new training programmes have emerged and several new programs are at a nascent state. Many of these new programmes have collaborated with centres internationally in developing high quality evidence based training programmes combining didactic teaching and clinical experience.



## 2888 - CAP STATE (The Child and Adolescent Psychiatry - Study of Training in Europe): Part 2: The wider issues

Dr Elizabeth Barrett

#### Background:

Recent publications highlight different systems of training, and efforts and inter- country collaboration (led by organisations such as ESCAP and IACAPAP) have attempted to bolster training initiatives (ESCAP, IACAPAP text books, e-learning initiatives). CAP-STATE went far beyond previous studies in examining CAP training in more detail, trying to develop a broader and deeper understanding of the complex issues surrounding training, such as finances, involvement of trainees themselves and the changing focus of our field.

Results: An overview of training in participating countries, including:

- A. Country information and training
- B. Recruitment, Training composition and duration,
- C. Training from Theory to Practice, looking at core components of training (formative and summative)
- D. Supervision and Assessment during training,
- E. Senior clinicians as Trainers and the roles of Training institutions.

#### Conclusions:

This talk will focus on the breadth of information garnered across the 35 participant countries. Differences highlighted in the study include different requirements in terms of training duration and composition, which covers a range from 1 to 8 years; access to medical speciality experience; different opportunities in terms of training centres and practical training supports e.g. part time work, exposure to international experiences etc. While psychiatrists across Europe working in the field of child and adolescent psychiatry clearly have different methods of training, some clear shared goals can be identified.



#### S01-11: Child- and Adolescent Psychiatry Training in Europe

### 2890 - Child and Adolescent Psychiatry Training in Australia and New Zealand

Dr Paul Robertson

The Royal Australian and New Zealand College of Psychiatrists (RANZCP) is responsible for the training of all psychiatrists including those completing sub specialist Child & Adolescent Psychiatry training in Australia and New Zealand. Psychiatry training is achieved over a minimum of 5 years. The final 2 years can be completed in child and adolescent psychiatry rotations leading to the Certificate of Child and Adolescent Psychiatry Training and recognition as a psychiatrist with subspecialty training in Child and adolescent Psychiatry. In 2012 the RANZCP introduced a Competency Based Fellowship Program (CBFP) for the 2012 cohort. Full implementation of the CBFP occurred in 2016 with CBFP coming into effect for all trainees including those completing subspecialty Child and Adolescent Psychiatry training. The underlying principles of the CBFP and its implementation in regard to Child and Adolescent Psychiatry training will be described. The CBFP tools of Work Based Assessments (WBAs), Observed Clinical Outcomes (OCAs) and Entrusbable Professional Activities (EPAs) will be explained. The Australian and New Zealand experience so far will be outlined.



### S01-12: Neuronal Correlates of Developmental Dyslexia: From the Prereader to the School Child

Prof. Dr. Silvia Brem University of Zürich

As a keystone academic skill, reading is learned in most countries within the first years after school enrolment. Developmental dyslexia (DYS) is a specific learning disorder of reading, often co-occurring with impairments in written expression, affecting around 5-10% of school children. Children with DYS typically encounter severe scholastic, academic and professional disadvantages across their lifespan, and are at risk for psychological distress and mental health problems. Fluent reading relies on a predominantly left lateralized, highly specialized network of brain areas that act in concert to process words. In this session we present novel neuroimaging findings on DYS and DYS-risk from the prereader to the school child. Non-invasive neuroimaging techniques such as even-related potentials (ERP), functional magnetic resonance imaging (fMRI), structural MRI and diffusion tensor imaging (DTI) yield insight into underlying deficits in brain networks of children with DYS. Moreover, alterations in the neuronal activation patterns of processing visual print or phonological information in pre- and beginning readers highlight the potential of neuronal measures to improve the prediction of children's reading outcomes and/or the response to interventions.

PhD Katarzyna Jednoróg's talk focusses on neuronal correlates of phonological awareness in the brain, as a key factor in reading acquisition. Pronounced hypoactivation in core areas of the language network of young pre- and beginning readers suggest a dysfunction in processing phonological representations.

Prof. Maaike Vandermosten's talk addresses the ongoing debate on whether well specified phonetic representations per se or impaired access to speech sounds underly deficient phonological processing in DYS. FMRI and DTI data suggest a deficit in phonetic representations in affected children.

MSc Georgette Pleisch presents data about visual character processing in preschoolers at varying familial risk for DYS. EEG and fMRI data demonstrate that emerging visual specialization in the ventral occipito-temporal cortex depends on learning performance and is modulated by precursor skills of reading.

PhD Gorka Fraga Gonzalez talk addresses alterations in ERPs after specific letter-speech sound fluency training in school children with DYS. The data indicate the potential of the N170 as a predictor of reading outcome and suggest that multisensory integration facilitiates visual specialization.



## 2790 - The influence of familial risk and dyslexia on phonological processing — a longitudinal fMRI study

PhD Katarzyna Jednor**ó**g Laboratory of Psychophysiology, Nencki Institute of Experimental Biology

Phonological awareness is a key factor in reading acquisition, predicting its later success or causing reading problems when it is weakened. Our aim was to establish the neural correlates of auditory rhyming in young children with (FHD+) and without familial history of dyslexia (FHD-). We also explored at different stages of literacy acquisition differences between children who developed dyslexia and those who became typical readers and either had or did not have familial risk.

At time-point 1 (TP1) we tested 102 FHD+ and FHD- Polish pre- and beginning readers (aged 5;6 – 8;0). Participants performed a battery of tests measuring cognitive and reading-related skills. During fMRI children had to decide whether two aurally presented words rhymed (Rhyme task) or judge whether the same words were spoken by speakers of the same gender (Voice task). At TP2, 2 years later, behavioural and fMRI tasks were repeated and formal diagnosis of dyslexia was conducted. 3 groups were formed: FHD+ children who developed dyslexia (FHD+D), FHD+ controls (FHD+C) and FHD- controls (FHD-C), each including 21 subjects. Brain activity to Rhyme>Voice was compared between the groups at two TPs. FHD+ compared to FHD- children scored lower in an early print task and showed longer reaction times in the in-scanner rhyme task. Overall familial risk was associated with reduced activation in the bilateral temporal, tempo-parietal, inferior frontal and inferior temporaloccipital regions. When the groups were retrospectively split, at TP1 FHD+D compared to FHD+C group read significantly less words and scored lower in phonological tasks. At TP2 FHD+D compared to both control groups underperformed in numerous reading, phonological awareness and writing tasks. In the in-scanner rhyme task FHD+D children scored lower than both control groups, but only at TP1.

At TP1 both FHD+ groups had reduced brain activity than FHD-C group, which overlapped in the left inferior frontal gyrus (IFG). At TP2 FHD+D children displayed higher activation than both control groups, which overlapped in the left tempo-parietal junction (TPJ). Additionally in the left TPJ an interaction between group and TP was observed – FHD+D had lower activity at TP1 and higher at TP2 than FHD-C group.

Even though FHD+ children showed only subtle behavioral deficits they present typical pattern of hypoactivations observed in dyslexia.



## 2787 - Neural representations and connectivity profiles in young children with dyslexia

Dr. Maaike Vandermosten KU Leuven

There is an ongoing debate whether phonological deficits in dyslexics should be attributed to less well specified phonetic representations per se or rather to an impaired access to these speech sound representations. A study in adults with dyslexia, using a combination of fMRI multi-voxel pattern analysis (fMRI\_MVPA) and diffusion MRI connectivity measures, demonstrated intact neural quality of phonetic representations itself but decreased temporoparietal-to-frontal connectivity, suggesting a problem in access (Boets et al., 2013). The current study aims to capture the developmental trajectory of potential deficits in phonetic representations by applying a multimodal approach (fMRI\_MVPA and diffusion MRI) at the start of reading onset. Fifty-two children (grade 2), of whom half had a family risk for dyslexia and 15 developed dyslexia later on, participated in this study. First, during the fMRI-scan, children listened to various acoustic utterance of /baba/ and /dada/. MVPA analyses demonstrated that controls (i.e. typical reading children without a family risk) displayed distinctive phonetic decoding in bilateral superior temporal lobe (left: p = .037; right: p = .019), but children with dyslexia could not (left: p = .241; right: p = .946). Hence, dyslexic children showed less distinct neural representations of speech sounds in bilateral superior temporal lobe than controls (left: p = .031; right: p = .041). Second, diffusion MRI analyses demonstrated that white matter in the left and right arcuate fasciculus was differently organized, already prior to reading onset (kindergarten), in children who later on develop dyslexia (Left: t(59) = 2.2, p = .032: right: t(43) = 2.7, p = .011). Third, connectivity measures in the left arcuate fasciculus predicted the degree of neural distinctiveness of phonemes two years later (r = .373, p = .039). Finally, our results show that typical readers with a high family risk for dyslexia have similar deviances than dyslexic readers concerning neural distinctiveness of phonemes but intact dorsal connectivity.

To conclude, our children data suggest that a deficit in phonetic representations might be an essential component in the aetiology of dyslexia, which opposes the findings in the adult study. Given the relationship between dorsal white matter fibers and the quality of phonetic representations in superior temporal regions, it is most presumable that they develop in close interaction and in a dynamic way.



#### 2788 - Emergence of visual expertise in the prereading brain

MSc Georgette Pleisch

Department of Child and Adolescent Psychiatry, University Hospital of Psychiatry, Zurich

#### Introduction

Deficient integration of visual characters and corresponding speech sounds is seen as a core deficit of developmental dyslexia. An important prerequisite for successful integration and consequently for the development of reading acquisition, is the automated processing of visual characters in a specialized neural network. In the present study, we examined how prereading children process visual print information on different stages of emerging expertise and how precursor skills of reading (e.g. phonological awareness) and reading fluency in first grade modulate this emergence.

#### Methods

In a simultaneous electroencephalography (EEG)/functional magnetic resonance imaging (fMRI) study four different character types ranging from highly familiar to completely novel (digits, letters, trained false fonts and untrained false fonts) were presented to prereading children. Precursors of reading skills and initial reading scores were assessed at the end of kindergarten and in the middle of first grade, respectively.

#### Results

Our data showed expertise dependent activation differences for the visual event-related potential (ERP) N1 and for ventral occipito-temporal (vOT) fMRI activations. For the first time, we show a significant modulation of visual character processing in the brains of prereaders after short character-speech sound training (<30min). This emerging visual specialization was reflected in a more pronounced activation for trained compared to untrained false fonts irrespective of modality and a strong relation between fast learning and activation in the left vOT. In addition, both precursor skills and reading fluency shaped the activation in the vOT.

#### Conclusion

We discuss this emerging visual specialization in the frame of the interactive specialization model (Price et al. 2011) where interaction and integration of feedforward input from visual areas and feedback predictions from higher order language areas during early learning stages drive the strength of the response in the vOT. Importantly, our data show that visual specialization for print in prereaders depends on training success and is modulated by both precursor skills and reading fluency in early learning stages. Our novel insights critically extend the knowledge on neural changes underlying emerging visual specialization during reading acquisition and could critically improve the identification of children with poor reading outcomes to allow for early, targeted intervention.



## 2791 - Contributions of visual print tuning and letter-speech sound learning to reading improvement in dyslexia: evidence from brain potential studies

Dr. Gorka Fraga Gonzalez Department of Developmental Psychology, University of Amsterdam

#### **Objectives**

Learning letter-speech sound associations and visual specialization are two crucial steps in the initial phases of reading. In a recent study we examined changes in brain potential responses to visually presented words after training letter-speech sound mappings in dyslexic children. We focused on the relation between these responses and reading improvements after the training. Additionally, we related the changes in visual specialization after training to neural responses of audiovisual integration. We review these findings and present our upcoming EEG studies investigating associative audiovisual learning in dyslexia.

#### Methods

A group of 18 dyslexic children in 3rd grade were tested before and after training letter-speech sound mapping fluency. We focus on the amplitude of the visual N170, a negative brain-potential component elicited by letter and symbol strings. A separate study in the sample used an audiovisual oddball paradigm with phonemes to examine a neural marker of audiovisual integration (i.e., the crossmodal MMN).

#### Results

The training was differentially effective in speeding up reading fluency in the dyslexic children. The group of improvers at pre-training showed larger N170 amplitude to words compared to non-improvers. N170 amplitude decreased following training in improvers but not in non-improvers. Moreover, there was a positive relation between the decrease in N170 amplitude and gains in reading fluency. Our additional analysis revealed that the decrease in N170 amplitude was also correlated with pre-test MMN latencies, indexing audiovisual integration.

#### Conclusion

Collectively, the results supported the sensitivity of N170 amplitude to reading fluency and its potential as a predictor of reading fluency acquisition in dyslexia. Furthermore, the correlational results between N170 and MMN support the notion that multisensory integration facilitates visual specialization. The interaction between the neural systems specialized for reading and the associative processes involved in letter-speech sound learning are the main focus of our upcoming research.



### S01-13: The significance of Clinical High Risk for psychosis condition in children and adolescents.

Marco Armando

The early detection and treatment of individuals at clinical high risk (CHR) for psychosis is considered as the most promising strategy to reduce the immense burden of psychotic disorders. Outcome and, relatedly, burden are even worst in early onset psychosis, with the first episode starting before the age of 18 years. Nevertheless, research in this filed has mostly been carried out in adults, while little consideration of possible specific requirements in children and adolescents has been considered to date. Thus, several authors have recently argued that the validity of current at-risk and psychotic-onset criteria developed for adults still need to be confirmed in children and adolescents.

The aim of this symposium is to examine the specificity of the CHR condition in children and adolescents from different points of views. The first talk will focus on the age effects in the clinical significance of symptoms used in detecting CHR for psychosis. Following, we present findings from a study on the twelve-month predictive value of CHR criteria in children and adolescents. The third talk will focus on the application of a network approach to increase the ability of detecting at risk conditions. The fourth and last talk will focus on the rationale and case example of why mentalization-based therapy should be empirically tested in adolescents with CHR.



2546 - Age effects in the clinical significance of symptoms used in detecting clinical high risk for psychosis.

Frauke Schultze-Lutter

Objectives: Early detection of psychosis is an important topic in psychiatry. Yet, developmental issues are still underresearched. Thus, we examined risk symptoms and criteria in 8-40-year-olds from the general population.

Methods: Well-trained psychologists performed assessments of risk symptoms, using established interviews. Differentiating between perceptive and non-perceptive/cognitive phenomena, impact of age groups on risk symptoms and their clinical significance (current psychosocial functioning deficits or non-psychotic DSM-IV axis-I disorder) was assessed by logistic regression analyses. Results: Altogether, 9.9% of interviewees (N=689) reported attenuated psychotic symptoms (APS), and 18.1% basic symptoms (BS); 1.3% met APS, 3.3% COPER and 1.2% COGDIS criteria. For APS, an age effect was detected around age 16: compared to 16-40-year-olds, 8-15-year-olds reported more perceptive APS and lesser clinical significance of non-perceptive APS. Similar age effects of BS on prevalence and clinical significance that differed between perceptive and cognitive BS and followed brain maturation patterns were also detected: around age 18 for perceptive and in the early twenties for cognitive BS.

Conclusion: These findings strongly suggest differential developmental factors affecting prevalence and clinical significance of APS and BS criteria. Further, they emphasize the need to address the differential effects of perceptive and non-perceptive risk phenomena, and their interaction with age, also in terms of conversion to psychosis, in future studies.



### 2547 - Twelve-month psychosis-predictive value of the ultra-high risk criteria in children and adolescents

Marco Armando

Objective: The validity of current ultra-high risk (UHR) criteria is under-examined in help-seeking minors, particularly, in children below the age of 12 years. Thus, the present study investigated predictors of one-year outcome in children and adolescents (CAD) with UHR status.

Methods: 35 CAD (age 9–17 years) meeting UHR criteria were followed-up for 12 months. Regression analyses were employed to detect baseline predictors of conversion to psychosis and of outcome of non-converters.

Results: At one-year follow-up, 20% of patients had developed schizophrenia, 25.7 % had remitted from their UHR status that, consequently, had persisted in 54.3%. No patient had fully remitted from mental disorders, even if UHR status was not maintained. Conversion was best predicted by any transient psychotic symptom and a disorganized communication score. Conclusion: Our findings provide the first evidence for the predictive utility of UHR criteria in CAD in terms of brief intermittent psychotic symptoms when accompanied by signs of cognitive impairment. However, because attenuated psychotic symptoms related to thought content and perception were indicative of non-conversion at 1-year follow-up, their use in early detection of psychosis in CAD needs further study. Overall, the need for more in-depth studies into developmental peculiarities in the early detection and treatment of psychoses with an onset of illness in childhood and early adolescence was further highlighted.



#### 2548 - A Network approach to Ultra High Risk for psychosis

Eduardo Fonseca Pedrero

Objectives. Early detection and intervention of those individuals at ultra high risk (UHR) for psychosis represents one of the most stimulating challenges for mental health. However, in order to advance our understanding in this arena, it would be interesting to add new statistical approaches. Recently, a network analysis was used to analyze mental disorders as complex networks of interacting symptoms. Thus, the main goal of the present study was to analyze the network structure of subclinical psychotic symptoms in a sample of UHR.

Method. The research was conducted with UHR participants enrolled in a prevention program for psychosis. A total of 61 participants (M=21.70 years, SD=3.83 years), meeting UHR criteria. The Structured Interview for Prodromal Syndromes (SIPS) was used. Furthermore, personality traits, neurocognitive performance, medical and medication history, social and family functioning were also measured.

Results: Measures of centrality (node strength, betweenness, and closeness) and clustering of the network model shown several interesting subclinical psychotic symptoms' connections. Not all nodes (e.g., positive, negative and disorganization symptoms) in this network model were equally important in determining the network's structure. The network structure of those participants who developed psychosis in the follow up showed the strongest relationship between symptoms compared to those who did not transition to psychosis.

Conclusions: These findings suggest the value of analyzing specific subclinical psychotic symptoms and their associations in UHR individuals to gain new insight into the mechanisms of psychosis liability. UHR symptoms can be seen as causal systems providing a promising complement to traditional psychopathology models. Moreover, the network structure of at risk mental states for psychosis may serve as an indicator for individual vulnerability to psychopathology, in general, and psychosis in particular.



## 2550 - Rationale and Clinical Illustration of Mentalization-Based Treatment in Clinical High-Risk for Psychosis

#### Martin Debbané

Objectives. Indicated preventive interventions involving evidenced-based psychotherapy are under evaluation in cases of clinical high-risk for psychosis. Indeed, treatment during the clinical high risk states (CHR), preceding by 1–4 years the onset of psychotic disorders, may delay or prevent the onset of psychosis, and contribute to a more positive prognosis. We provide a rationale and case example of why mentalization-based therapy should be empirically tested in CHR.

Methods. First, we review the notion of high-risk for psychosis within a trans-theoretical developmental framework for conceptualizing the clinical progression from subclinical towards clinical psychotic states. Second, we address the commonalities and differences between the constructs of mentalization and other social cognitive targets of treatment. Finally, we provide a clinical illustration of MBT to emerging psychosis.

Results. Mentalization constitutes a trans-diagnostic process that may contribute to resilient outcomes in CHR. Its clinical application can also address a number of comorbidities accompanying CHR. The clinical case provides case material suggesting that MBT is acceptable in youths with CHR.

Conclusion. We will conclude by discussing the specific contributions of MBT approach in youths at CHR, and the necessary research for evaluating its relevance in the context of risk for developing psychosis.



### S01-14: The overlap between eating disorders and weight/metabolic abnormalities:

Prof. Nadia Micali Icahn School of Medicine at Mount Sinai

Eating disorders occur across the weight spectrum, however the prevailing conceptualisation of how eating disorders develop and manifest focuses on the brain. Recent evidence from genetic and neurobiological studies suggests a pivotal role of metabolism and weight abnormalities in the development and maintenance of eating disorders.

This symposium will offer a unique perspective on the overlap and commonalities between eating disorders and abnormal weight and metabolic dysfunction, from biology to public health and clinical practice. Presenters from 4 countries will share their novel findings and the state of knowledge in the field. Dr Micali will focus on a longitudinal study on weight trajectories and metabolic predictors. prior to eating disorder onset in a large birth cohort. Dr Olsen will talk about the overlap between obesity and abnormal weight and eating disorder behaviours and cognitions in population-based samples. Dr Hinney will present data on the role of genes associated with metabolism and obesity in eating disorders biology. The discussant will focus on summarising the research presented and will focus on clinical implications.

This symposium will be unique in bringing together novel high quality research on eating disorders and their metabolic and weight implications. It will be aimed at clinicians and researchers across all areas of child and adolescent mental health and eating disorders.



#### 2688 - Childhood weight and BMI predict adolescent eating disorders

Nadia Micali

Eating Disorders (ED) occur across the weight spectrum. very few longitudinal studies have investigated childhood weight as a predictor of ED onset. This presentation will focus on two studies investigating childhood weight and BMI as a predictor of ED. Data were obtained from a longitudinal community sample, the Avon Longitudinal Study of Parents and Children (N~7,000). BMI in childhood and growth significantly predicted adolescent ED and ED behaviours. Our findings build on new evidence from genetic studies of a genetic correlation between BMI and ED.



## 2689 - The overlap between obesity and disordered eating in early adolescence: a population-based perspective

Prof Else Marie Olsen

#### Objectives

Population studies investigating predictors of and associations between weight problems and disordered eating behaviours in children a limited.

In this talk we present results from the prospective population study the Copenhagen Child Cohort 2000 (CCC2000) concerning the associations between overweight and disordered eating behaviours and cognitions in early adolescence.

#### Methods

The CCC2000 is a longitudinal birth cohort study designed to investigate risk factors and early signs of psychopathology. The cohort has been followed prospectively since birth with follow-ups in preschool-age (5-7y) and preadolescence (11-12y), including measures of problematic eating and mental difficulties at both ages, and weight status at 11-12 years. Information about socioeconomics is available from the Danish national registers covering the entire cohort. At 11-12 years 1567 of the cohort children fulfilled a questionnaire including the Eating Pattern Inventory for Children (measuring restrictive, emotional and external eating behaviours), the Children's Figure Rating Scale (measuring body perception), and the Development and Well-Being Assessment (measuring mental health). The children also attended a clinical examination with objective measurements of height and weight. IOTF definitions were used to define underweight, normal weight, and overweight.

#### Results

At 11-12 years overweight (16.1%) was found to be cross-sectionnally associated with all three types of disordered eating behaviours, as well as with body dissatisfaction and mental disorders. Associations were more profound in children exhibiting more than one disordered eating behaviour. Also, body dissatisfaction (BD) was common in this age-group (48%), with 14.5% reporting moderate to severe BD. Although, BD was primarily associated with overweight, the desire for a slimmer body was also common in normal weight children (41% of those with BD). Finally, restrictive eating behaviour and overweight in preadolescence were found to be associated with preceding overeating patterns in preschool-age.

#### Conclusion

Problematic eating and overweight are common and clearly associated in early adolescence, and are associated with severe mental disorders. Also, prospective analyses indicate that problematic eating patterns associated with overweight in preadolescence can be traced to preschool-age.



#### 2690 - Dissecting the genetic overlap between weight and eating disorders

Prof. Dr. Anke Hinney

#### Objectives

Prior to the onset of anorexia nervosa (AN), body mass index (BMI) spans the entire range from underweight to obesity. The maintenance of normal body weight is disrupted in patients with AN for prolonged periods of time. Genetic and epigenetic loci involved in body weight regulation may also be relevant for AN and vice versa.

#### Methods

A cross-trait analysis of the 1000 single nucleotide polymorphisms (SNPs) with the lowest p-values in a genome-wide association meta-analysis (GWAMA) of AN with the largest published GWAMA for BMI was performed. Subsequently sex-stratified analyses ensued. A look-up of GWAMA-derived BMI related loci was pursued in the AN GWAMA. Additionally a chip-based genome wide methylation analysis was performed for AN.

#### Results

Associations (p-values < 5x10-05) for 9 SNP AN alleles at 3 independent BMI loci (chr. 2, 10 and 19) were detected. Interestingly, all AN susceptibility alleles were consistently associated with decreased BMI. None of the genes nearest to these SNPs had previously been associated with AN or obesity. Sex-stratified analyses revealed that the strongest BMI signal originated predom-inantly from females. The hypothalamic expression of two of these genes was reduced by fast-ing and increased by diet induced obesity. The methylation analyses confirmed hypermethyla-tion for one gene, and highlighted further sites that might be specifically involved in the starva-tion process in AN.

#### Discussion

A cross-trait analysis of AN and BMI loci revealed variants at three chromosomal loci with potential impact on both traits. Methylation analyses revealed initial promising results for both starvation and obesity.



S01-15: Psychological processes underlying suicide and self-harm in young people: implications for specialist training and targeted interventions

PD Dr. Maria Michail University of Nottingham

Suicide is the 2nd leading cause of death for young people worldwide. A significant predictor of competed suicide is self-harm which is particularly common among young people. Despite substantial efforts in suicide prevention, suicide rates are on the rise while the number of young people self-harming has also risen dramatically in the last decade.

International strategies for suicide prevention have highlighted the importance of the early identification and assessment of at-risk young people using a holistic, biopsychosocial approach. However, the assessment and management of suicide risk, including self-harm, is an area most professionals including general practitioners find particularly challenging. Communication difficulties resulting from lack of understanding of the biopsychosocial mechanisms such as distress, impulsivity and emotional pain underlying suicide and self-harm often leads to these being misinterpreted as attention-seeking behaviours and treated with negativity and lack of compassion. Improving the clinical skills and attitudes of medical professionals as well as their understanding of the psychological processes underlying suicide and self-harm through specialist training and education is an important suicide prevention strategy.

This symposium brings together findings from five studies that have used diverse methods and participants to explore the challenges associated with understanding and treating self-harm and suicide in young people. The first paper examines the association between impulsivity and self-harm in young people; the second paper explores the experiences of young men who have attempted suicide; the third and fourth study explore general practitioners' experiences and attitudes in relation to youth suicide prevention and self-harm; and the fifth paper gathered qualitative data from young people, general practitioners and practice nurses to explore the factors that help and hinder important conversations about self-harm. Together these papers contribute to our understanding of suicide and self-harm by:

- 1. Highlighting the psychological mechanisms underpinning suicide and self-harm in vulnerable young people
- 2. Identifying the need for specialist training in the assessment and management of at-risk young people by frontline staff
- 3. Highlighting implications for such training to enhance professional knowledge and skills in the assessment and management of youth suicide risk, improving health outcomes for young people.



### 2779 - Differentiated impulsivity and self-harm risk in adolescence: findings from a Systematic Review

Joanna Lockwood

Background: Self-harm - intentional self-poisoning or self-injury irrespective of motivation - is common in adolescence and research has sought to identify psychological correlates and risk factors for this behaviour as a means of establishing prevention and treatment targets. Evidence has associated impulsivity (broadly the tendency towards quick, unplanned action) with self-harm behaviour. However, impulsivity is multidimensional in nature and its association with self-harm varies as a function of conception and measurement approach. Objective: There is limited understanding of how distinct facets of impulsivity relate to self-harm specifically in youth, or how impulsivity facets contribute to transitions in self-harm behaviour from onset, continuation, escalation, and cessation for young people. A systematic review of the literature was therefore conducted to clarify associations between facets of impulsivity and self-harm specifically in community-based adolescents aged 11-25 years.

Methods: Electronic and manual searches identified 4,496 articles published up to July 2015, of which 28 met inclusion criteria. Results: Twenty-four out of 28 studies reported an association between broadly specified impulsivity and a self-harm outcome. Results varied according to the measurement of impulsivity and the precision with which self-harm behaviours were specified. Specifically, lifetime non-suicidal self-injury was most consistently associated with mood-based impulsivity related traits. However, cognitive facets of impulsivity (relating to difficulties maintaining focus or acting without forethought) differentiated current from historical self-harm and distinguished those with thoughts of self-harm from those acting on thoughts. Findings also suggested that mood-based impulsivity relates to the initiation of self-harm, while cognitive facets of impulsivity relate to the maintenance of behaviour. In addition behavioural impulsivity appears most relevant to self-harm under conditions of negative affect. Collectively, findings indicate that distinct facets of impulsivity confer unique risks across the life-course of self-harm in adolescence. Differentiated impulsivity may provide utility in the early identification of self-harm risk, and offer targeted treatments options for youth engaging in self-harm thoughts and behaviours.



2780 - "What is the point of life?": An interpretative phenomenological analysis of suicide in young men with first-episode psychosis

Dr Ruchika Gajwani

Objectives: Life time risk of suicide in first-episode psychosis far exceeds the general population, with the risk of suicide persisting long after first presentation. There is strong evidence to suggest that women more frequently attempt suicide, while men are at a greater risk of completing suicide. First-hand experiential evidence is needed in order to better understand men's motives for, and struggles with, suicidality in early psychosis.

Methods: Semi-structured interviews were conducted with seven participants. The interviews explored each respondent's account of their suicide attempt within the broader context of their life, in relation to their past, present and future. In line with the exploratory, inductive nature of the study, an Interpretative Phenomenological Analysis (IPA) was used to explore the meaning of suicide attempts in these accounts.

Results: Three super-ordinate themes emerged: Self-as-vulnerable (intra- and inter-personal relationships), appraisal of cumulative life events as unbearable. and meaning of recovery marked by shared sense of hope and imagery for the future.

Conclusions: Young men in the early stages of their treatment are seeking to find meaning for frightening, intrusive experiences with origins which often precede psychosis. These experiences permeate personal identity, relationships and recovery. Suicide was perceived as an escape from this conundrum, and was pursued angrily and impulsively. By contrast, the attainment of hope was marked by sharing one's burden and finding a sense of belonging. Specialised assertive outreach programmes may be beneficial in improving the social inclusion of young men who may be particularly marginalised.



2781 - Exploring general practitioners' views and experiences on suicide risk assessment and management of young people in primary care.

Dr Maria Michail

Background: Suicide is a major public health issue and the second leading cause of death for young people worldwide. International initiatives for suicide prevention have highlighted the role of GPs in the early identification and management of at-risk young people. Suicide risk assessment, however, is an area that most GPs find particularly challenging. Lack of specialist clinical skills and inadequate mental health training have been identified by GPs as significant barriers to the assessment and management of suicidal presentations.

Aim: To explore GPs' views and experiences of assessing, communicating with, and managing suicidal young people aged 14–25 that would inform the development of an educational intervention for GPs on youth suicide prevention tailored to their needs and feasible to be delivered in primary care.

Methods: Qualitative focus group study with 5 inner city general practices in Nottingham using framework analysis.

Results: Twenty-eight GPs took part (9 males) with mean age of 37 years. The median number of years of professional experience was 13. Three themes emerged from the data in relation to: GP's attitudes and beliefs towards suicide; the challenges GPs experience when it comes to the assessment and management of suicide risk in young people; and optimal ways of addressing some of these challenges through the provision of specialist targeting GPs' knowledge and clinical skills.

Limitations: Convenience sampling based on accessibility, interest in the study and willingness to participate might have led to over-representation or under-representation of particular groups of GPs within the sample.

Discussion: The findings revealed wide variations in the understanding of risk among GPs, which has subsequent implications to how GPs perceive risk should be assessed. GP education on suicide risk assessment and management in youth should promote a holistic understanding and assessment of risk and its individual, social and contextual influences.



### 2783 - Attitudes of General Practitioners and General Practitioners-intraining towards young people who engage in deliberate self-harm

**Amy Moriarty** 

Objectives: Adolescence and young adulthood are critical developmental periods, particularly in relation to mental health and wellbeing. The majority of mental health problems diagnosed in adults, first appear during these critical periods. Young people are also at greater risk of a wide range of mental health problems than other age groups including a higher risk of deliberate self harm (DSH). DSH is also one of the strongest risk factors for suicide. Reviews indicate lifetime prevalence rates of DSH ranged from 13.5%-18% in young people.

The primary objective of this study was to understand the factors that contribute to the attitudes of general practitioners to young people who self harm. This is important because GPs are frequently the first people that young people and their families turn to for help following an incident of self harming. Non-judgemental, accepting attitudes may facilitate help-seeking and result in higher rates of treatment, whereas negative attitudes may discourage subsequent help-seeking.

Methods: A cross-sectional sample of 178 GPs and 47 GPs-in-training (121 females) in Ireland completed a survey investigating DSH training experience, and attitudes. The sample was drawn from across the country, using both randomised and snowball sampling techniques.

Results: Findings indicate relatively high levels of empathy towards young people who engage in DSH. Some negative attitudes are present but not strongly endorsed. Linear regressions show that previous training in youth mental health or DSH is a significant predictor for positive empathy (R2 = .07, B = .28, SE = .07,  $\beta$  = .27, 95% CI: 3.83 - 3. 95, P < .001) and perceived knowledge (R2 = .08, B = .39, SE = .09,  $\beta$  = .29, 95% CI: 3.21 - 3. 37, P < .001) but not for negative attitudes (R2 = .02, B = -.15, SE = .09,  $\beta$  = -.12, 95% CI: -.327 - 0.15, P = .07) towards young patients who engage in DSH. Participants with previous training have higher mean scores of positive empathy and perceived knowledge.

Conclusions: GPs generally hold positive attitudes towards young people who self harm, those who have specialist training have higher levels of empathy. GPs with specialist training also report that they know more about DSH than those without training. Establishing this link is important because a young person who experiences an empathic response may be encouraged to seek help and obtain appropriate treatment and advice.



### S01-16: Online publishing in child and adolescent psychiatry - Challenges and Chances

Prof. Dr. Joerg Fegert Universitätsklinikum Ulm

Open-access, online-publishing has become increasingly important in recent years. Prof. Dr. Joerg M. Fegert, Editor-in-Chief of Child and Adolescent Psychiatry and Mental Health (CAPMH) presents an overview of developments in online-publishing and the structure of an open-access online journal in the field of child and adolescent mental health. Senior Editor of CAPMH, Dr. Benedetto Vitiello presents on the reviewing process and journals' challenges to recruit reviewers. Dr Jacinta Tan, Senior Editor of CAPMH, will offer insights into the remit of publishing manuscripts from low- to middle-income countries and on encouraging and helping developing researchers who may not have sufficient resources or command of English language to publish high-quality manuscripts. Liaison Editor for the International Association for Child and Adolescent Psychiatry and Allied Professions (IACAPAP), Prof. Dr. Olayinka Omigbodun, gives an account of the process of publishing a series of African contributions in CAPMH.



#### 2661 - The approach to the peer-review in a child psychiatry journal

Dr. Benedetto Vitiello Child & Adolescent Neuropsychiatry

Peer-review is an essential component of the process of generating scientific literature, but implementing a review system that is both rigorous and prompt can be challenging. The risks of a suboptimal peer-review are inadequately reviewed publications and/or unnecessary delay in dissemination of scientific findings. This presentation aims to examine challenges encountered in the peer-review of an open access child psychiatry journal and to review possible approaches to recruiting the most appropriate reviewers for each submission. In addition, the critical role of the journal editor in integrating the comments and perspectives of the different reviewers toward reaching a final decision about publication will be discussed.



### 2660 - Online, open-access publishing in the field of Child and Adolescent Mental Health

Prof. Dr. Joerg Fegert Child and Adolescent Psychiatry and Psychotherapy

Online, open-access publishing has become increasingly important in the field of scientific journals. This presentation offers an overview of the development of online-publishing across recent years and provides insights into the structure of a journal in the field of Child and Adolescent Mental Health (CAMH). Child and Adolescent Psychiatry and Mental Health (CAPMH) is an open-access, online journal. This format provides an online platform for comprehensive and fast interdisciplinary communication of latest CAMH research. The scope of CAPMH comprises all topics concerning CAMH, but especially encourages publications concerning niche-subjects. International thematic series (e.g. on European forensic child and adolescent psychiatry in 2016) aim to improve communication about those topics. CAPMH specifically includes, and financially supports, manuscripts by authors from low-income countries, in order to foster cross-cultural exchange of information. In the same line, CAPMH regularly promotes culturally local series (e.g. Asian or African series in 2015 and 2016). In order to foster these publications, CAPMH cooperates closely with the International Association of Child and Adolescent Psychiatry and Allied Professions (IACAPAP) and the European Association for Forensic Child and Adolescent Psychiatry (EFCAP).



2662 - 'Walk a mile in my shoes' — the challenges of being a truly globally e-journal within First World constraints

Dr. Jacinta Tan Swansea University

CAPMH is the first child and adolescent mental health open access e-journal. Its remit as the official journal of the IACAPAP (International Association of Child and Adolescent Psychiatry and Allied Professionals) is to provide free access to high quality research publications for all. Because of this it has attracted submissions from many researchers and clinicians in developing world countries. One of our aims is to encourage and publish submissions from countries which do not traditionally dominate in research publication and redress the imbalance of countries from which most research projects and scientific publications arise. This is a role which has been emphasised by our relationship IACAPAP. There are however particular challenges that arise in promoting and publishing research from less developed countries — issues of affordability of open access publication fees, lack of fluency in English, and less familiarity with or institutional support and access to expertise in methodology and statistics. This talk will explore the ethical issues and practical dilemmas underpinning this enterprise and the need to acknowledge difficulties that can arise, yet fulfill expectations and metrics which are applied to a First World journal. We will illustrate the talk with some accounts of how the editorial staff at CAPMH have coped with these challenges.



2663 - Mentoring young African scientists and publishing an African thematic series in an international journal

Prof. Dr. Olayinka Omigbodoun University of Ibadan

Across a time-span of three years, 28 CAMH professionals from several African countries trained on a Master of Science programme at the Centre for Child and Adolescent Mental Health (CCAMH), University of Ibadan, Nigeria. Results from the best research projects on various topics such as evaluation of therapy programmes and training interventions for CAMH were submitted to the journal CAPMH. The African thematic series is an example of a culturally situated local series published in CAPMH, initiated by Olayinka Omigbodun on behalf of the CCAMH This presentation describes the experience of training and mentoring young CAMH professionals in Africa and publishing results from their projects in an international journal.



S02-01: Suicidal behavior in adolescence

Dr Prof Alan Apter

Suicide is a leading cause of death among adolescence in Europe. In the current symposium we bring different aspects of suicidal behavior derived from studies conducted in different European countries. The studies touch upon maintenance and cessation of self-injurious behavior over time, ethnic and cultural differences in suicidal risk, comorbidity of suicide behavior with ADHA and theoretical predictors of suicide behavior.



### 2703 - Predictors of onset, maintenance and cessation of self-injurious behavior during adolescence

#### **Prof Romuald Brunner**

Objectives: So far, there are only very few studies on the course of self-injurious behavior in adolescents and young adults. The aim of the present population-based study was the analysis of prospective predictors of onset, maintenance and cessation self-injurious behavior in adolescents.

Methods: A representative sample of the normal population of adolescents from Germany (initial sample: N=1,444; mean age = 14.7, SD=0.80,52% female adolescents) was studied over a two years period on 4 consecutive points of measurement in the context of the European school-based intervention study SEYLE.

Results: There was a high remission rate (70.4%) of self-injurious behaviors at 24-month follow-up investigation. However, there was a substantial rate (29.6%) of adolescents who continued the self-injurious behavior, as well as a group of "new starters". Self-injurious behavior during the baseline examination proved to be the strongest predictor of self-injurious behavior 2 years later. The extent of depressive symptoms and quality of peer relationships were significantly associated with maintaining self-injurious behavior two years later. Furthermore continued self-injurious behavior over the first 12-month was highly associated with suicide plans/suicide attempts at 24-month follow-up investigation.

Conclusions: While both, onset and maintenance of SIB are prospectively associated with an increased risk for suicidal behaviour in late adolescence, SIB cessation significantly reduces the risk for later suicidal behaviour. Clinicians should focus on reducing SIB in adolescents engaging in SIB to prevent further engagement in suicidal behaviour.



### 2704 - The association between gender, ethnicity and suicidality among vocational students in Israel

PhD Joy Benatov

Objectives: Gender and ethnicity are significant factors to consider when evaluating suicidal risk, especially among ethnically diverse populations. In the current study we explored the association between gender, ethnicity and suicide ideation and attempts among Arab and Jewish vocational education and training high school students in Israel.

Methods: Students (N=3,554) completed a self-report survey evaluating suicide ideation and attempts, depression, anxiety, somatization and sense of belonging. Hierarchical Generalized Linear Modeling were used analyze the data.

Results: Results indicated that female Arab adolescents had elevated levels of suicide ideation, higher rates of suicide attempts and greater psychological distress than Arab males and Jewish students. Furthermore female Arab adolescents were found to be more susceptible to suicide ideation when depression levels were high.

Conclusions: These results are discussed in the context of the double-jeopardy Arab young women face, as members of a minority ethnic group in Israel and their status as women within the more collectivistic and patriarchal Arab culture.



#### 2705 - Suicidality and Non-suicidal Self Injury in Adolescents with Attention-Deficit Hyperactivity Disorder

**Judit Balazs** 

Objectives: Recently several studies have focused on attention-deficit hyperactivity disorder (ADHD) as a possible risk factor of suicidality and non-suicidal self injury (NSSI). The aims of the two included studies were the extension of previous studies: how comorbidities of ADHD influence suicidality and NSSI.

Methods: Adolescents were enrolled into two studies in the Vadaskert Child Psychiatric Hospital and Outpatient Clinic, Budapest, Hungary; Sample 1: Treatment-naive adolescents (> 12 years) (n=121) with the symptoms of ADHD, Sample 2. Adolescents (> 13 years) (n=52) with ADHD. Psychiatric symptoms were evaluated in both studies by the modified Mini International Neuropsychiatric Interview Kid (M.I.N.I. Kid).

Results: The associations between both the symptoms of ADHD and suicidality (total and direct effects of ADHD symptoms on suicidality were .112 (p=.002) and .014 (p=.797), respectively) and ADHD and NSSI (total and direct effects of ADHD on NSSI were .506 (p<.0001) and .027 (p=.207), respectively) were fully mediated by the symptoms of comorbid disorders. Conclusions: The results suggest that recognition and treatment of ADHD and comorbid symptoms are important both in suicide and NSSI prevention.



### 2706 - Prediction of suicidal behavior in adolescents: Joiner's Interpersonal Theory

Dr Prof Alan Apter

Objectives: The interpersonal theory of suicide (IPTS) proposes that two interpersonal processes thwarted belongingness and burdensomeness combine together to produce suicidal ideation. When suicidal ideation is facilitated or habituated by acts of self harm suicidal acts occur. We aimed to test IPTS predictions in a large multi-national sample of adolescents in a prospective manner.

Methods: Data was collected as part of the Saving and Empowering Young Lives in Europe (SEYLE) study. 7,738 pupils from ten EU countries who completed baseline, 3-month and 12-month follow-ups were included in this study. A self-report questionnaire was used to measure perceived burdensomeness, thwarted belongingness, health risk behaviors (HRB), direct self-injurious behaviors (D-SIB), and suicidal ideation and attempts. We used multilevel mixed effect logistic regression analyses to examine univariate and multivariate associations between baseline predictors and incident suicide attempt at 3- and 12-months.

Results: In line with IPTS predictions, thwarted peer/parental belongingness and burdensomeness predicted suicide attempts during follow up, but not beyond the effect of suicidal ideation. Acquired capability for self-harm, measured by HRB and D-SIB, predicted incident suicide attempts beyond suicidal ideation. This effect operated independently from suicidal ideation rather than in interaction with it.

Conclusions: Direct and indirect acts of self-harm are important predictors in the pathway of suicide attempts in adolescents, regardless of suicidal ideation. Suicide prevention strategies are encouraged to attend to distinguished risk groups, one associated with suicidal ideation and interpersonal vulnerabilities and the other with self-harm practices.



S02-02: Adolescence in transition — critical moments for adolescents in the transition to adulthood in different cultural contexts.

MD, MPH Patrick P. Haemmerle Praxis Pérolles

Objectives: Adolescence is transition « par excellence ». This multi-cultural symposium intends to show the variety of patterns by which adolescents in different cultures and contexts live in this crucial period of their life, with all the immanent risks and opportunities. We should learn that a normative and rigid approach is neither adequate nor helpful for our clinical work.

Methods: The five contributions will present five respectively different variations of adolescence, seen as the crucial stage of transition into adulthood. Our contributions will be based on a psychoanalytical (adolescence as "second chance") and a sociocultural (each culture creates its own adolescence) approach.

After a brief introduction to the key themes of adolescence from a historical, an ethnopsychanalytical and a sociocultural perspective (Patrick Haemmerle, Switzerland), Amine Benjelloun (Maroc) first will address the question of standards and values in a specific culture and how they infiltrate the consultation. Nick Kowalenko (Australia) will speak about the problem of deliberate self-harm in Australian adolescents. Sami Owaida (Gaza City/Palestine) will discuss if and how youngsters can live a normal adolescence in an abnormal sociopolitical situation. Paul Wai-Ching Wong will close the presentation with a discussion of the very contemporary ICT-problem of total psychosocial withdrawal by certain youngsters who become addicted to their screens.

Results The mosaic of these contributions should allow us to better understand the normal, i.e. "eu-functional", and the not normal, pathological pathways from adolescence into adulthood in different cultures, sociocultural and political situations.

Conclusion The transition stage of adolescence has many different faces and appearances. We have to be careful in pathologizing too quickly certain behaviours and manifestations, without forgetting the potential risk of some self-injurious behaviours.



2508 - Adolescence, valeurs, normes.

Dr.méd., PhD Mohamed Amine BENJELLOUN

Le travail avec l'adolescent est-il « universel », c'est-à-dire mené pareillement partout, avec les mêmes problématiques rencontrées, résolu avec les mêmes outils théoriques et pratiques ? Ou bien, une partie plus ou moins importante de la prise en charge, dépend aussi de facteurs socio-historiques et culturels, avec ce que cela suppose comme forces et enjeux en présence? Cette question du pareil et pas pareil, du monde du dedans et du dehors, du près et du lointain, de l'intime et de l'extime, de l'inné (la part du biologique et du neurodéveloppemental) et de l'acquis (la part de l'historico-social), constitue un raisonnement par comparaison et analogie, central en pédopsychiatrie. L'adolescence, par les conflits liés aux changements physiques et psychologiques, par le passage à une pensée abstraite, par les ouvertures nouvelles qu'elle apporte, questionne de façon plus aigue ce qui se joue aussi au niveau du cadre, mettant en exergue la question du milieu et de ses pesanteurs dans ses rapports à l'Histoire et au Biopolitique. « Ici », « là-bas », « ailleurs » donc, comment se rejoue la question de la triangulation adolescent / pédopsychiatre / parents? Ne faut-il pas compter un quatrième acteur, qui serait le poids du socio-culturel de l'Histoire, et des Institutions en présence ? Comment, sur fond de réactivation des anciens processus de séparation /individuation, le couple antinomique dépendance /autonomie, peut-il advenir et permettre la résolution de conflits ? Comment réfléchir les mécanismes historiques et sociaux, qui à leur tour, donneront une lecture possible de la situation de crise, et permettront ou pas d'en sortir ? Enfin, il nous semble que la problématique contextuelle constituant le fil rouge de toute consultation et de toute prise en charge d'adolescents, est bien celle de la question des valeurs (les idées importantes à un moment donné de la vie, guidant les croyances, composants de la culture et d'une certaine subjectivité); et des normes (ce qui est attendu alors par le groupe, par la société, avec la possibilité, pour imposer ces normes pouvant avoir statut de lois, de sanctions même).



### 2512 - In Australia, Adolescents in Transition are Self-Harming: Transforming their Future is a Priority.

MD, Clinical Director Nick Kowalenko Department of Child & Adolescent Psychiatry ROYAL NORTH SHORE HOSPITAL

#### Objectives:

Adolescent and youth suicide rates have decreased since the mid 1990's but remain a leading cause of death in young people. But for some groups, such as young women and adolescents under 14 years of age, rates of suicide are now increasing!

This paper will describe some of the risks and opportunities for better managing deliberate self-harm (DSH) in adolescents in transition. It will consider specific stressors that impact on the sub-groups of young people with increasing suicide rates and the relationship of suicidal ideation and behaviours to suicide.

#### Methods:

By integrating recent data examining child and adolescent deliberate self-harm (DSH), prevalence of mental disorders and transition in abnormal environments (eg. immigration detention, Aboriginal and Torres Strait Islander disadvantage) this paper will outline the impact of such contextual factors. The implications of these findings for professional practice will be described.

#### Results:

Disadvantage, detention, colonization, specific societal pressures on young women, contagion and other socio-cultural phenomena may contribute to the high rates of DSH in the context of adolescent transition. Increasing rates of suicide for those aged less than 14 years is particularly disturbing.

#### Conclusion:

It is of grave concern that suicide rates for specific sub-populations of adolescents continue to increase in Australia, despite concerted national public health interventions. Closer examination of the specific circumstances of these adolescents and our professional responses to them may allow us to envision socio-cultural changes that can transform their future and reshape the risks experienced in their transition to adulthood.



2513 - Recent studies on pathological social withdrawal (a.k.a. hikikomori) during in adolescence and young adulthood in Asia and Hong Kong: do they have any values in other regions?

Dr. Paul Wai-Ching Wong Department of Social Work and Social Administration, Faculty of Social Sciences, The University of Hong Kong

Youth (dis)engagement in various aspects has become an important issue in many high-income and aging-population countries. In particular, the growing group of young people who are not in employment, education or training (NEET) has become a great concern. Prolonged periods of socio-political-educational disengagement can lead to marginalization, dependence, loneliness, powerlessness, increased use of drugs and criminal activity, homelessness, and social-politicalcivil apathy and distrust of authorities and governments. Pathological social withdrawal refers to long-term social withdrawal/disengagement and self-exclusion for over six months – including non-attendance at school or work, and with minimal contact with friends, family and society – in the absence of other psychiatric diagnoses. This is possibly the worst condition of NEET and has raised serious concerns around the world. Although first classified as a culturally specific condition within Japan (termed hikikomori) because of Japan's nobility of solitude and major structural changes in the last 1980s, similar cases have been recently identified in other Asian countries (Hong Kong, South Korea), some low-middle-income countries (Bangladesh, India, Iran, Thailand), and Western countries (Australia, UK, US). The aim of this presentation is to provide a review of the literature on its existing explnatory frameworks, prevalence rates among various countries, identified contributing factors, empirical-supported interventions, and potential preventive progammes. This presentation will be concluded by an exploration withthe audiences of the presence of such transitory youth issue in Europe and research and services gaps that are yet to be filled.



## 2514 - Protective factors and resilience among traumatized Palestinian adolescent living in Gaza

MD Sami OWAIDA

In Gaza, adolescent transition doesn't go in a normal way. We have to take in consideration the political context of this region and must ask, how the transition into adulthood is possible when there are plenty of psychological, socio-economic and political barriers. The role and the importance of protective factors and resilience will be presented and discussed.



S02-03: Emotional responsivity and emotion regulation in infants, children and young adults with autism spectrum disorders (ASD)

S02-03: Emotional responsivity and emotion regulation in infants, children and young adults with autism spectrum disorders (ASD)

prof Hanna Swaab Leiden University

Emotions help in steering and tuning our behavior in social situations. Attention to emotional states of others, emotional responsiveness towards others, and adequate regulation of emotions is crucial for adaptive social functioning, already from an early age. It is therefore important to study emotion processing in individuals with autism spectrum disorders (ASD). Techniques from the field of neuroscience, i.e. eyetracking and biomarkers of the autonomic nervous system (heart rate and skin conductance), have provided us with sensitive and objective means of assessing this. The key focus of this symposium is understanding the nature of emotion dysfunctions in individuals with ASD across a range of developmental stages: infancy, childhood and young-adulthood. Using biomarkers and eyetracking parameters, insights in emotional responsiveness, the regulation of emotions and stress, and attention to emotions of others will be presented. This approach might help in identifying the specific nature of socioemotional difficulties in ASD beyond the behavioral phenotype.



## 3070 - Measuring the physiological arousal of infants at risk for ASD in response to emotion videos

**Tessel Bazelmans** 

Objectives: Several studies report hyper-arousal in individuals with Autism Spectrum Disorder (ASD) in response to social stimuli. High stress levels could underlie differences found in attention to faces and the ability to process other people's emotions. However, the effect of arousal during the emergence of behavioural differences in early childhood is unclear. This study aims to see if 5-month-old infants at risk for ASD show differences in heart rate to social and non-social videos compared to low-risk infants. We were also interested in group differences in heart rate changes during separate videos. Methods: This preliminary data is part of BASIS (British Autism Study of Infant Siblings), a longitudinal study following 5-month-old infants at risk for ASD (N=34) due to having an older sibling with ASD. They are compared to low-risk infants with an older sibling but no first-degree relatives with ASD (N=18). Heart rate was measured during an eye-tracking paradigm, starting and ending with a non-social wildlife video (NS1 & NS2). In between were two social videos with a woman acting happy and sad, counterbalanced in order. Average heart rate and changes throughout the 30 second duration of the videos were compared between groups using repeated measures ANOVAs. Results: There is a significant effect of video  $(F(2.40,91.05) = 10.974, p < .001, \eta p = .22)$ . Heart rate is higher during Happy, Sad and NS2 compared to NS1. There are no group differences or interaction effects. NS1 and Sad show a significant effect of time (NS1: F(3.76, 188.33) = 4.03, p = .004,  $\eta p2 = .08$ ; Sad: F(3.82, 168.13) = 5.41, p = .001,  $\eta p2 = .11$ ) and time is approaching significance for the Happy video (F(3.13, 128.16) = 4.12, p = .007,  $\eta p2$  = .09). Heart rate first decelerates during these three videos before accelerating. Conclusions: This preliminary data shows that infants at low and high risk for ASD are comparable in average heart rate and heart rate changes during social and non-social videos. The initial deceleration in heart rate shows that both groups show a similar orienting response, followed by an acceleration, which can be interpreted as the termination of attention or increase in stress levels. Heart rate differences at later time points of this longitudinal study (10, 14, 24 and 36 months) need to be considered to see if and when physiological differences emerge in development and whether they relate to later-emerging social difficulties and atypical face processing.



## 3073 - Psychophysiological responses to emotional scenes in young children with Autism; Correlates of social functioning

### Gemma Zantinge

Objectives: Studying cognitive and affective mechanisms of social behavior could lead to identifying early indicators of derailing social behavior in young children with Autism Spectrum Disorder (ASD). The present study combined sensitive and objective techniques, such as eyetracking and psychophysiology, to provide insight into early neurodevelopmental mechanisms that are more difficult to uncover when relying on behavioral measures. Methods: Social attention towards faces and changes in affective arousal were investigated together in 28 young children with ASD (42-75 months) and 45 non-clinical controls (41-81months). Children were shown a social-emotional video clip while eyetracking and heart rate were measured.

Results: Children with ASD fixated less on key social-emotional features within the clip as compared to controls, even though both groups attended equally towards the screen. In contrast to the control group, children with ASD did not show an increase or modulation in affective arousal in response to the social-emotional scenes. Severity of ASD symptoms, specifically social problems, was associated with arousal modulation and social attention within the ASD group.

Conclusion: Early ASD symptoms are associated with impairments in fundamental building blocks of social behavior as expressed in a lack in spontaneous social attention and affective arousal. Such sensitive and objective measures of underlying mechanisms might serve as indicators for tailored approaches in treatment and may help in evaluating effectiveness of early interventions aimed at positively influencing social development and related quality of life in individuals with ASD.



3074 - Differential deficits in experience versus regulation of emotion in young children with autism spectrum disorders: Insight from physiological arousal measures and behavioral observation

prof Hanna Swaab

Objectives: Problematic emotional behavior as expressed in tantrums, irritability, aggression, self-injury, and anxiety, is often seen in children with Autism Spectrum Disorder (ASD). This study was designed to assess differential deficits in the physiological experience of emotion versus behavioral regulation of emotion in young children with ASD.

Methods: In the study 29 children with ASD (27 boys) and 45 typically developing children (36 boys) were included, all aged between 41 and 81 months old. The locked-box task from the LABTAB was used to elicit frustration and assess recovery. During the task heart rate (reflecting emotion experience) was continuously measured and behavioral emotion coping strategies (reflecting emotion regulation) were videotaped. Language, IQ, inhibition, mental flexibility and self-control were measured to evaluate the contribution of these child characteristics to emotional experience and -regulation.

Results: GLM repeated measures analysis of arousal level showed a main effect of task, with significant increases in arousal in both groups, followed by significant reductions in arousal during recovery in both groups. There was no significant main effect of group and no significant task by group interaction, indicating that heart rate patterns were identical in the ASD group and control group. However, parallel observations of emotion coping strategies during the task showed that the ASD group showed significantly less constructive strategies, and more dysfunctional strategies in terms of venting and avoidance, which were most strongly predicted by language impairments.

Conclusion: The results of this article stress the importance of being able to cope with emotions, and the role of IQ, language and self-control in this. Rather than abnormal levels of emotional experience as reflected in affective arousal, a key impairment in young children with ASD may be a lack of top-down cognitive control in how experienced emotions are expressed to others.



3078 - Gaze behavior and physiologic arousal to social stress in young adults with autism spectrum disorders.

Renee Dijkhuis

Background: Previous research shows less physiologic arousal to stressors (Goodwin et al. 2006) and diminished gaze behavior towards social stimuli (Chita-tegmark, 2016) in autism spectrum disorders (ASD). Despite the hypothesized link between diminished attention to social cues and the inappropriate social skills and behavioral inflexibility seen in many individuals with ASD (Dalton et al., 2005), little is known about arousability in socially stressful situations in individuals with ASD.

Method: We compared physiological arousal and gaze behavior during a social stress task between young adults with high functioning ASD (HFASD; N=53) and their typically developing (TD) peers (N=31). Heart rate variability (HRV) and skin conductance were measured simultaneously as indicators of respectively sympathetic and parasympathetic functioning of the autonomic nervous system. Social attention was measured with eye tracking (fixation duration in seconds) for multiple customized areas of interest. Additionally, participants were asked to report on experienced stress during the task.

Results: Findings suggest that HFASD individuals implicitly and explicitly experience the same amount of stress and show similar gaze behavior during the presentation task. However, lower skin conductance response throughout the task and less variability of HRV between the different phases of the task in the HFASD group suggests less adequate regulation of arousal compared to controls.

Conclusion: Our results tentatively support the notion that inadequate stress regulation in ASD continues beyond childhood despite a high level of functioning.



S02-04: Neurobiology of female adolescent conduct disorder: results from the European FemNAT-CD consortium

Prof. Dr. Christine M. Freitag University Hospital Frankfurt

Female Adolescent Conduct Disorder is an under-researched disorder despite its individual, clinical and societal impact. Prevalence of female adolescent conduct disorder (CD) is rising with current estimates around 5% in Western populations. The majority of studies on neurobiological correlates of CD have focused on male subjects only, despite strong evidence for a differential aetiology and neurobiology of female CD.

In this symposium we will present latest results of the large European FemNAT-CD consortium on neuronal (Nora Raschle et al., Basel; Stephane de Brito et al., Birmingham), neurophysiological (Helena Oldenhof et al., Amsterdam), neuroendocrinological (Christine M. Freitag et al., Frankfurt) and neurocognitive correlates (Gregor Kohls et al., Aachen) of CD in adolescent females compared to males with CD and typically developing adolescents. The FemNAT-CD study is currently the largest European study on females with CD.



## 3240 - Atypical neuronal activation patterns during emotion regulation in youths with conduct disorder

Dr. Nora Maria Raschle

Objectives: Conduct disorder (CD) in youths is characterized by severe aggressive and antisocial behaviour and constitutes a distinct neurobiological phenotype. CD occurs in up to 3-5% of all youths and is commonly associated with emotion processing and regulation deficits. However, the associated neuronal correlates have yet to be investigated.

Methods: We conducted a whole brain event-related fMRI paradigm assessing emotion processing and regulation in 140 youths with (N=66/43\$) and without (N=74/54\$) a diagnosis of conduct disorder, as part of the ongoing FemNAT-CD project (FP7no. 602407). Data was acquired at two sites (Basel/Frankfurt). CD was diagnosed according to DSM-IV TR guidelines. Typically developing girls did not have past or present signs of disruptive behaviour disorders. Participants were characterized using standardized clinical interviews/testing (e.g. for callous-unemotional traits, psychopathy and aggression). fMRI analysis included pre-processing (realignment, co-registrations, segmentation, normalization, smoothing), artefact detection and first level analysis. The main regressors of interest corresponded to emotional reactivity (viewing negative versus neutral images) and emotion regulation (neural activation while looking at negative images as opposed to decreasing any feelings while viewing negative images). For both emotional reactivity and emotion regulation success we conducted one sample t-tests for the groups of CD girls and controls, as well as group analyses.

Results: In-scanner data (affect rating during fMRI) confirm that emotional reactivity and reappraisal were successfully applied by all individuals. Preliminary neuroimaging findings indicate that controls showed a stronger emotional reactivity (increased neural activation in limbic and prefrontal areas as a response to negative images) compared to CD. Furthermore, controls and CD differ in their neuronal correlates representing emotion regulation success. This was indicated through modulation and/or activation by reappraisal in prefrontal and limbic brain regions in control participants, but not CD.

Conclusion: Overall we here demonstrate functional atypicalities in CD youths during emotion processing and regulation for limbic and prefrontal brain regions. This finding furthers our understanding about the neuronal phenotype of female CD. The impact of CU traits on emotional reactivity and emotion regulation will be discussed.



# 3244 - Brain response to negative facial expressions in male and female adolescents with conduct disorder: Investigating the influence of sex in the FemNAT-CD consortium

Dr. Stephane de Brito

Objectives: An increasing number of studies have investigated emotion processing deficits in conduct disorder (CD); however, the vast majority of these have focused on males. Thus, it is currently unclear whether females with CD display similar deficits in the neural underpinnings of emotion processing as their male counterparts. The aim of this study was to address this gap in the literature by comparing brain response during the processing of negative facial expressions in male and female adolescents with CD with that of typically developing males and females.

Methods: Functional magnetic resonance imaging data were obtained from 63 adolescents (30 females) with CD and 66 healthy controls (33 females; 14-18 years old). A gender discrimination paradigm was employed, in which participants viewed photographs of male and female negative facial expressions (angry and fearful) and neutral expressions. We tested for main effects of diagnosis, sex, and sex-by-diagnosis interactions on brain activity for the contrasts angry > neutral, fearful > neutral, and all facial expressions (angry, fearful, and neutral) > low-level baseline, i.e., a fixation cross.

Results: There was no main effect of diagnosis on activation specifically during angry or fearful trials, compared to neutral trials. However, there was a sex-by-diagnosis interaction in the amygdala during processing of angry expressions, which was driven by females with CD showing lower activity, and males with CD showing higher activity, compared to their respective control groups. Faces in general, compared with fixation crosses, elicited less activity in the fusiform gyrus for individuals with CD compared to controls. For this contrast, there was also a sex-by-diagnosis interaction with lower bilateral amygdala activation for females with CD and higher activation for their male counterparts.

Conclusion: This is the first study to show sex differences in the relationship between CD and amygdala activity during processing of emotional expressions. Results suggest that CD might affect key regions of face and emotion processing differently in males and females.



3247 - Psychophysiological measures in the FemNAT-CD study: Baseline Autonomic Nervous System Functioning in Girls with Severe Conduct Problems.

Helena Oldenhof

Background: Although the Autonomic Nervous System (ANS) has been studied extensively in males showing conduct problems (CP), much remains unclear regarding this relationship in females. In the FemNAT-CD study we investigate the ANS functioning in girls with severe CP. Previous studies have suggested that parasympathetic functioning plays a central role in emotion regulation, with low parasympathetic activation being related to emotion regulation problems. Decreased sympathetic functioning has been associated with motivational problems in antisocial populations.

Objectives: This study aims to compare basal ANS functioning between female adolescents with CP and female adolescent controls.

Method: A sample of 297 CP-girls was compared with 363 controls (9-18 years old). Baseline ANS functioning was measured during a 5-minute relaxation video. ANS activity was measured by heart rate (HR) and Respiration Rate (RR), parasympathetic activity by heart rate variability (RSA), and sympathetic activity by pre-ejection period (PEP).

Results: Baseline measures of HR and RSA revealed no differences between the CP and control group. However, significant differences were found for RR and PEP: RR was significantly higher in the CP group and sympathetic activity was significantly lower in this group. Conclusion: We found evidence of deviations in ANS functioning in females showing severe conduct problems. However, effectsizes of the ANS parameters appeared small. These findings suggest possible gender differences in neurobiological underpinnings of antisocial behaviour.



## 3250 - Neurocognitive biomarkers of conduct disorder

Dr. Gregor Kohls

Introduction: Quantitative measures of affective dysfunction might be particularly suited to unravel sex-specific dysfunctions and cognitive profiles relevant to the NIMH Research Domain Criteria (RdoC). Converging evidence from studies with male subjects suggests that three areas of emotional functioning contribute to conduct behaviors, including deficits in emotion recognition, emotion learning, and emotion regulation. Thus, the aim of our multisite study is to identify common and gender-specific profiles of emotion dysfunction in a well-characterized sample of youth with CD compared to healthy controls.

Methods: Data from cases with CD and age- and sex-matched controls (9-18 years) were analyzed. Emotion recognition, emotion learning and emotion regulation were assessed with a battery of computerized tasks (emotional hexagon task, passive avoidance task, emotional go/nogo task). Repeated-measures ANCOVAs with age, IQ and site as covariates were run, followed by post-hoc contrasts with Bonferroni corrections. Cluster analyses were conducted to identify subgroups of emotion dysfunction within and across gender in youth with CD. Results: CD cases differed from controls with respect to empathic abilities, reactive-proactive aggressive behaviors and callous-unemotional and psychopathic traits. Significant group x gender interaction effects were found for callous-unemotional and psychopathic traits in which case-control differences were larger in females compared to boys. In addition, we found impaired emotion recognition across all basic facial emotions, impaired cognitive and emotional control as well as deficient reward-based learning in CD subjects compared to controls. Group x sex differences were only evident within the reward-based learning task. Cluster analyses revealed a subgroup of CD subjects with relatively unimpaired neurocognitive performance across all emotional tasks while other subgroups exhibited patterns of specific emotional dysfunction.

Conclusions: Assessing emotional functions by standardized computerized tasks can provide important quantitative measures of cognitive/ affective processing and might thus help to unravel specific associations between clinical symptoms and emotional impairments in subgroups of CD. This might contribute to delineate distinct (and possibly gender-specific) developmental pathways to CD which are relevant for developing more individualized treatment options.



## 3251 - Stress, sex hormone and social neuropeptide related correlates of female adolescent conduct disorder

Prof. Dr. Christine M. Freitag

Introduction: The underlying neurobiology of adolescent conduct disorder (CD) has been suggested to differ strongly between females and males. Previous studies have implicated the stress and sex hormone system in CD aetiology in males with CD. The role of hormones implicated in social interaction, such as oxytocin and vasopressin, has rarely been studied despite findings from animal studies indicating a role of these neuropeptides in aggressive behaviour, and the interaction of the stress hormone system with oxytocin. The aim of the current study is compare cortisol, testosterone, estrogen and progesterone levels female and male in adolescents with CD, study their relationship with social neuropeptide level, and explore a neuroendocrinological risk pattern for adolescent female conduct disorder.

Methods: As part of a European multi-site study (FemNAT-CD), data from 4 x N=100 male and female individuals with CD and typically developing age and puberty status matched controls are analysed with regard to saliva derived basal cortisol, sex hormone and social neuropeptide level. Specific neuroendocrinological classes are explored by cluster analysis. Group comparisons are done by ANCOVA. Correlation analysis with CU traits and aggressive behaviour scores are done by linear modelling.

Results: First results show equal basal cortisol levels in CD and typically developing controls without differences between males and females. In contrast, main effects of sex and CD were observed for testosterone, which was positively associated with CD and being male. Additional results are pending.

Conclusion: Basal saliva hormone and neuropeptide measures are easily clinically obtained and may be used as markers for differential CD subtypes. The results of this study again indicate a differential underlying neurobiology of CD in female compared to male CD.



**S02-05:** Recent advances in autism research

Roberto Canitano University Hospital of Siena

For many decades, autism was considered to be a rare condition. However, the reported prevalence of autism spectrum disorders (ASD) has considerably increased during the past decade, with recent estimates being in the range of 1.0 – 1.5%. The marked increase in ASD prevalence has stimulated worldwide interest in autism research. The aim of our symposium is to bring together new findings from neurobiology and psychopathology of autism, with some overlap to genetics and pediatrics, two important allied disciplines of child and adolescent psychiatry. Michal Hrdlicka will introduce the concept of latent social skills in autism and present some proofs of this concept. The presentation held by Roberto Canitano will deal with a new experimental procedure in ASD and Schizophrenia Spetrum Disorders based on self ecognition through a custom made mirror. Rainald Moessner will present data on the overlap of the genetic etiology of ASD and schizophrenia with a particular focus on monogenic causes. Vincent Guinchat and his associates will demonstrate in their presentation that challenging behaviors among adolescents with ASD may be associated with gut inflammation.



## 2796 - The concept of latent social skills in autism and its proofs

Prof. Michal Hrdlicka Department of Child Psychiatry Charles University Second Faculty of Medicine University Hospital Motol

Objectives: The idea of latent social skills in autism emerged as one of the possible interpretations of rapid (but temporary) improvement of autistic subjects in oxytocin studies. Andari et al. suggested in 2010 that patients with autism might possess latent social skills, and thus oxytocin might favor social engagement behavior by suppressing fear and mistrust. This explanation was both fair and acceptable, but surprisingly, has aroused negligible attention. In the present study, we tested a hypothesis that a normal response to item No. 59 "Secure Base" from the third version of the Autism Diagnostic Interview-Revised (ADIR-59) could indicate the presence of latent social skills in autism. If the hypothesis is valid, performance on the ADIR-59 item should have predictive value for further social development, i.e., normal performance on the item should represent the possibility of future social growth.

Methods: The sample consisted of 110 children (88 boys, 22 girls) with mean age  $6.0 \pm 2.5$  years (range 2.2–14.8 years). Diagnoses, based on the ICD-10, included 85 patients with childhood autism, 21 patients with atypical autism, 3 patients with Asperger syndrome, and 1 patient with other childhood disintegrative disorder. In 68 autistic patients (62%), a diagnosis of mental retardation was also established. The assessment involved testing using the third version of the Autism Diagnostic Interview-Revised, the Autism Diagnostic Observation Schedule (ADOS) and a clinical examination by two experienced child psychiatrists with expertise in autism.

Results: The difference in the ADOS social domain between children aged 5 years and less and older children was significant in subjects with normal responses to ADIR-59 (9.60 vs. 6.47; p=0.031) but not in those with abnormal responses to ADIR-59 (10.62 vs. 9.63; p=0.537). In a predictive model, lower ADOS social domain scores were predicted by older age (p=0.001), lower scores on the ADIR-59 (p=0.01), and the absence of mental retardation (p=0.049).

Conclusion: The results support the hypothesis that the normal response to item ADIR-59 "Secure Base" indicates the presence of latent social skills in autism.

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## 2797 - Common genetic causes of autism and schizophrenia

PD Dr. Rainald Moessner

Dept. of Psychiatry and Psychotherapy University of Tübingen

#### Objectives

The objective is to dissect the overlap of the genetic etiology of autism spectrum disorder (ASD) and schizophrenia with a particular focus on monogenic causes. Both ASD and schizophrenia are considered to represent neurodevelopmental disorders. With the technological advances of recent years including Copy-Number Variant (CNV) analysis and exome sequencing, elucidation of the genetic causes of ASD and schizophrenia has progressed and has surprisingly uncovered a number of genes which are causative for both ASD and schizophrenia (e.g. Moessner et al., 2007, Marshall et al., 2008, Giegling et al., 2017). A particular focus of this presentation is on monogenic causes of these disorders.

#### Methods

Genome-wide analysis of Copy-Number Variants (CNV) and exon sequencing of target genes as possible monogenic causes of either ASD or schizophrenia with special focus on de novo mutations.

#### Results

Mutations and CNVs in a number of genes were detected which are highly likely to represent monogenic causes of ASD and schizophrenia. These include SHANK3, deletions at 16p11.2, and a number of other genes which will also be presented.

#### Conclusions

Mutations and CNVs of these genes facilitate the understanding of the differential causation of neurodevelopmental disorders including ASD and schizophrenia. Moreover, these monogenic causes also open up new avenues for the treatment of ASD. Furthermore, these findings bear implications for the recommendations for genetic counselling.

#### Selected References:

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## 2798 - A STUDY OF SELF-RECOGNITION IN EARLY ONSET SCHIZOPHRENIA AND AUTISM

Dr., MD Roberto Canitano University Hospital of Siena

The diagnosis of Early Onset Schizophrenia (EOS) is limited by the lack of developmental perspectives offered by international classifications. Several authors question the relationships between autism and EOS. Clinical observations suggest that these disorders share self-consciousness disturbances with primary difficulties in self-other differentiation. In a research project that used a system of mirror enabling the combination of two persons' images, we have studied self-recognition in children and adolescents with EOS compared to individuals with Autism Spectrum Disorders and typically developing controls matched on age, sex and stage of puberty. We have also studied how intermodal sensory perception could enhance self-other image differentiation.

Methods: the study group 1 included males and females with a diagnosis of Early onset Schizophrenia N=9, mean age= 14,14 SD=1.9, gender F=3 and M=6. The study group 2 included children and adolescents with a diagnosis of Autism Spectrum Disorder according to DSM-V based on clinical and Autism Diagnostic Observation Schedule-second edition (ADOS-2) evaluation: Mean age= 10,9. SD=1,9, gender F=2 and M=7. Control group was made up of N=9 patients, mean age= 12.3 SD=1.4. Mirror test was administered according to the protocol of this experimental procedure: a system of mirrors that allows the overlapping of the images of two persons that has to be differentiated by the patient (1).

Results: the study is still undergoing, the expected results encompass differences of self recognition between groups that will be detailed as as soon as the study will be completed, e.g march 2016.

#### Discussion

The preliminary results indicate that patients with EOS as well patients with Autism Spectrum Disorders have difficulties in differentiate their own image from that of the other compared to a group of children and adolescents with typical development. Intermodal sensory perception would facilitate instead the differentiation of self image vs. the image of the other in bot groups of patients.



## 2799 - Challenging behaviors among adolescents with ASD and gut inflammation

Dr., MD Vincent Guinchat GH Pitié-Salpêtrière, APHP

Background: During adolescence, some individuals with autism spectrum disorder (ASD) engage in severe challenging behaviors, such as aggression, self-injury, disruption, agitation and tantrums. Based on two previous studies assessing risks factors associated with very acute behavioral crises in adolescents with ASD admitted to a dedicated multidisciplinary neurobehavioral unit (1, 2), we found that most organic causes were epilepsy or painful medical conditions. Among painful medical conditions, many were related to upper gastro-intestinal tract inflammation. The current study aimed at delineating whether the association of eating disorder and anemia may help detecting those patients needing upper gastrointestinal endoscopy (UGIE) in non-verbal patients.

Methods: We retrospectively selected from all hospitalized patients in 2015-2016, those, non-verbal, who showed aggressive behavior and anemia or eating disorder (N=45) and who underwent UGIE.

Results: We found 26 patients (including 1 female only) meeting inclusion criteria. Eleven had anemia, 11 had pica, 6 hyperphagia, and 21 had increased aggressive behavior (compared to their baseline). UGI showed high rates of mucosal inflammation (76%): gastritis (N=17), esophagitis (N=1) or both (N=2). In addition, 2 patients exhibited gastric wounds. Bacteriological assessment found Helicobacter pylori in 7 cases and Helicobacter heilmannii in one. Only 4 patients had normal UGI examination. Prediction based on the possible combinations (two or three signs) found that the best sensitivity (0.85) was obtained by the presence of at least two criteria, and that the best specificity (0.83) was obtained by the presence of anemia+eating disorder+agressive behavior.

Conclusion: Challenging behaviors among adolescents with ASD may be associated with oeso-gastric inflammation. In non-verbal individuals, anemia, eating disorders and aggressive behavior should lead to UGIE examination.



## 2800 - Acute and Maintenance ECT for Catatonia in Autism Spectrum Disorders

Dr., MD Lee Wachtel Kennedy Krieger Institute - Behavioral challenges Unit

Introduction: This presentation aims to present data regarding 21 autistic patients who received acute and maintenance ECT for catatonia.

Methods: Retrospective review of psychiatric, behavioral and ECT records.

Results: 21 catatonic autistic patients ranging in age from 8 to 25 at time of ECT start were treated from 2006-2016. There were 6 females and 15 males. All patients were autistic, and presented for neurobehavioral assessment for catatonic regression and challenging behaviors. 17 of these patients met the Bush-Francis Catatonia Rating Scale (BFCRS) criteria with symptoms including immobility, rigidity, staring, posturing, mutism, echophenomena, withdrawal and negativism. 14/17 additionally presented with BFCRS criteria of psychomotor excitement, stereotypy and combativeness in the form of repetitive self-injury.

The 4 remaining patients met BFCRS criteria based solely on excitement, stereotypy and combativeness, with the repetitive, self-injurious acts that occurred thousands of times daily and required ongoing physical restraint for safety.

All patients underwent acute courses of thrice weekly ECT. 2 patients were started with right unilateral ECT; the remainder received bilateral treatment. All patients experienced a marked reduction in catatonic symptoms. 17/18 total patients with self-injurious behavior experienced similar acute reduction of such. 15/18 patients with SIB experienced sustained behavioral reduction with ongoing m-ECT. Patients continued with m-ECT ranging from once to twice weekly, with total duration ranging from 3 to 118 months, and total ECT from 12 to 700. Discussion: Multiple symptoms of catatonia are found in patients with autism; some of the most devastating presentations involve psychomotor excitement in the form of repetitive self-injury. New experience regarding the usage of acute and maintenance ECT is highly relevant for current care and future research regarding these extremely ill and vulnerable patients.



**S02-06:** Assessment of Identity Development in Adolescence (AIDA)

Dr. Kirstin Goth

Psychiatric University Clinics (UPK) Basel Department of Child and Adolescent Psychiatry

In the alternative model for diagnosing PD in DSM-5, impaired identity is integrated as one out of four central personality functions to evaluate PD severity. We developed the self-report questionnaire AIDA (Assessment of Identity Development in Adolescents) in 2012 for the use in adolescents aged 12 to 18 years to assess pathological identity development, based on a broad description of the field.

Psychometric properties of the original Swiss-German-US version of AIDA were very good, the total scale "identity diffusion" was significantly different between PD-patients and healthy controls with a remarkable effect size (d) of 2.2 standard deviations.

As the interest in the assessment of identity is high, we are supporting several international research groups to develop culture specific adaptations of this questionnaire. A thorough examination of psychometric properties revealed that a specific cultural adaptation might be usefull even for countries with the same language but different cultural background (like Spain, Chile and Mexico).

In this symposium the results of identity assessment with the AIDA in different languages and cultures will be presented and discussed.



3083 - Psychometric Properties of the final Spanish Mexican cultural adapted version of the Assessment of Identity Development in Adolescence (AIDA)

PhD Moises Kassin Universidad Iberoamericana, Mexican Psychoanalytic Association

Objective: The construct "identity" is an important criterion for diagnosing personality disorders in DSM 5. We aimed to evaluate this diagnostic possibilities with a Spanish cultural adapted version of the self-report questionnaire Assessment of Identity Development in Adolescence (AIDA). The first step was to provide sufficient psychometric properties of the inventory in Mexico. Methods: An adapted Spanish translation of AIDA was develop 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 culture-specific aspects. The psychometric properties of the Spanish version were test in three pilot tests. Participants were 679 students from a public school (N = 110), middle class (N = 414) private school high class (N = 155), aged between 12 and 19 years. Of these, 44.9% were boys and 55.1% were girls. Several item characteristics and scale reliability Cronbach's Alpha were analyzed. We evaluated aspects of criterion validity in a juvenile justice system sample (N = 41) of adolescent boys in conflict with the law who displayed various types of behavioral problems by comparing the AIDA scores of a subgroup with borderline pathology (N = 14) with the scores obtained in the student sample using T-tests. Results: The psychometric properties of the Spanish version of AIDA proved satisfactory in the Mexican sample for items as well as scales. The reliability coefficients were a = .90 for the total scale "Identity Diffusion", a = .81and .87 for the two primary scales "Discontinuity" and "Incoherence", and between a = .70 and .83 for the subscales. In line with our theory, the AIDA scores, speaking for impaired identity development, were markedly higher in the delinquent boys than in the student group, as well in the domains "Discontinuity" (high effect size) as in "Incoherence" (medium effect size), especially (very high effect size) in contrast to the delinquent adolescents with BPD pathology. Conclusion: The Spanish version of AIDA can be used in Mexico with satisfying psychometric properties. Our study contributes to the intercultural applicability of the AIDA instrument using the construct "identity integration vs. diffusion" for diagnostic purposes. The Spanish Mexican AIDA version can probably be used for other Spanish speaking countries.



## 3084 - Assessment of Identity in a Kosovarian sample

Aferdita Uka Clinical University Center Prishtina, Child and Adolescent Psychiatry

Objective: 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 personality 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 & Schmeck, 2012) is a reliable and valid method to assess pathology-related identity development in self-rating in adolescents.

Method: 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 and two pilot tests, the Kosovar AIDA (Assessment of identity development in adolescence) was tested for psychometric properties in a school sample in Kosova of N=703 (male 358 (50.9%), female 345 (49.1%); age 12-18, Mean 14.6, SD 1.9). In a subsample of N=46 a retest was conducted after two weeks.

Results: The main test provided sufficient scale reliabilities with  $\alpha$ =.88 for the total scale Diffusion, .74 for the primary scale Discontinuity and .84 for the primary scale Incoherence. The retest reliabilities were .73, .61, .74, respectively. No significant differences in the AIDA scores between girls and boys and between younger and older adolescents were obtained in Kosovo. No item showed a systematic difference (MANOVA) concerning sex or age. Thus, the item formulations can be regarded as age and sex neutral.

Conclusion: AIDA Kosovo is a reliable translation of the original AIDA questionnaire. To analyze diagnostic validity, further clinical samples will be assessed. Results will be discussed from the perspective of societal and cultural characteristics.



3086 - Impairment of identity development in adolescents with non-suicidal self-injury and suicide attempts - the preliminary results of a clinical population study with AIDA Croatia

Nela Ercegović

Objectives: The present study aimed to investigate differences in identity development between adolescents with non-suicidal self-injury (NSSI) and suicide attempts (SA).

Methods: Participants were adolescent psychiatric inpatients aged 12 to 18 years. Adolescents completed the AIDA questionnaire, the Youth Self-Report, the Deliberate Self Harm Inventory, the Childhood Trauma Questionnaire, the Family Adaptability and Cohesion Evaluation Scale and sociodemographic questionnaire. The patients were assigned to two groups (NSSI, suicide attempts). Differences were analyzed by multivariate analysis of variance MANOVA. Multivariate logistic regression analyses were employed to identify identity development correlates of NSSI and suicide attempts in the context of other known risk factors, such as psychopathology and experiences of childhood sexual and physical abuse.

Results: The preliminary results of the study will be presented. It is hypothesized that the AIDA total score will differ between the two groups; the patients with SA will have more impairments in identity development than patients with NSSI. Also, impairments in identity development will make independent contributions to NSSI and SA even after controlling for psychopathology and experiences of childhood abuse.

Conclusion: The results of this study will help to unravel the factors that hinder the development of identity in adolescence, and their influence in predicting and distinguishing NSSI and SA. This may help to improve assessment and treatment of adolescents with severe psychiatric problems such as NSSI and SA.



## 3089 - Convergent validity of the Serbian version of the Assessment of Identity Development in Adolescents (AIDA) questionnaire

Marko Kalanj Institute of Mental Health, Clinic for Children and Adolescents

Objectives: The aim of the study was to assess convergent validity of the AIDA questionnaire by correlating it with measures of adolescent psychopathology from an instrument which is routinely used in clinical practice.

Methods: The sample consisted of 51 adolescents (age range 13 – 19, mean age 16.65, SD 1.46, 38.3% girls), in clinical treatment (inpatient and outpatient) for not less then a year, with formal diagnoses of Mixed disorders of conduct and emotions according to the ICD 10 criteria, who were found to display a significant number of personality disorder symptoms. AIDA, a 58 item self-report inventory was used to assess identity development, while MACI (Millon Adolescent Clinical Inventory) was used for broad assessment of adolescent psychopathology.

Results: In regards to MACI personality patterns, AIDA total Diffusion score correlated highly (>0.5) with Borderline Tendency scale and moderately (0.3-0.5) with Inhibited and Doleful scales. A moderate negative correlation was found with Dramatizing and Egoistic scales. AIDA total Diffusion score was also highly correlated with Identity Diffusion and Self - Devaluation expressed concern scales, and with the Depressive Affect and Suicidal Tendency clinical syndrome scales. On AIDA subscale level, the aforementioned correlations with MACI scales were, in general, larger for the Discontinuity than the Incoherence scores.

Conclusion: Convergent validity of Identity diffusion, as measured by AIDA, was demontrated by high correlations with measures of adolescent borderline pathology and self – concept disturbances, based on a different framework (Millon's theory of personality and psychopathology). Also, the overall pattern of correlations between two instruments would suggest that identity diffusion, or more specifically, impairment in the area of Ego stability (discontinuity), was associated more with internalizing (avoidant and depressive personality traits, depressive affect) than with externalizing (histrionic and narcissistic personality traits) aspects of adolescent psychopathology. Correlation with measures of suicidality – which is an important and frequent concern – further highlights AIDA's potential usefulness in clinical assessment of adolescents.



## 3091 - Psychometric properties of a culture-adapted Arabic version of AIDA (Assessment of Identity Development in Adolescence) in Tunisia

PhD Zeineb Abbes Ghorbel Razi Hopsital Child and Adolescent Psychiatry Departement

Objectives: AIDA (Assessment of Identity Development in Adolescence) is a self-report questionnaire designed to assess identity development in adolescence. It was established in 2012 (Goth et al., 2012) and developed in German and English language.

The purpose of this study was to develop a culture-specific Arabic translation of AIDA and to test the reliability and aspects of validity of the questionnaire in a juvenile Tunisian sample.

Methods: Arabic version of AIDA in Tunisia was developed using standardized procedures of culture-adapted translation in an expert team, back-translation, and a series of empirical beta, pilot, and main tests.

The psychometric properties of AIDA Tunisia were examined in a combined sample of N=202 adolescents, consisting of N=166 students and N=36 adolescent patients.

Item characteristics were analyzed by several parameters; scale reliability by Cronbach's Alpha, percentage of symptomatic answers, effect size f of gender- or age-related item bias and mean item-total correlation (r-it).

Results: The psychometric properties of the Arabic version of AIDA proved satisfactory in the Tunisian sample for items as well as scales. The reliability coefficients were  $\alpha$  = .92 for the total scale Identity Diffusion, .80 and .88 for the two primary scales Discontinuity and Incoherence, and .56 to .76 for the subscales. Neither for differentiated age groups, nor for the full factor age, we found significant differences in the AIDA total score. We found significant differences in the AIDA total scores between boys and girls in the school sample: girls scored higher, similar to the results in the German school sample. But the difference reached only a small effect size. In contrast, we found significant differences between the school sample and a subsample of N=17 patients with diagnosed PD with a large effect size of d=1.2 standard deviations for the total score.

Conclusion: It was possible to provide 58 items with good psychometric properties to build the AIDA Tunisia, equivalent to the original version of AIDA and others translated versions. The results on clinical validity point to the high relevance of this construct for describing impairments assigned to PD.



# 3094 - Reliability and Validity Study (cultural adaptation) of the "Assessment of Identity Development in Adolescence (AIDA)" inventory for Turkish adolescents

PhD Zeynep Tüzün

Hacettepe University, Faculty of Medicine, Department of Pediatrics, Division of Adolescent Medicine

Objective: The aim of this study are to perform the cultural adaptation and validation of AIDA questionnaire for Turkish adolescents.

Method: AIDA-Turkey and Offer Self-Image Questionnaire (OSIQ) were given to 780 high school students from three SES and to a clinical sample of 57 adolescents for the standardization of AIDA and for the characteristics of the identity development, diffusion and possible personality disorders. Clinical sample was evaluated by DSM-5 based clinical evaluation, the Schedule for Affective Disorders and Schizophrenia for School Age Children Present and Life Time Version (K-SADS-PL) and Structured Clinical Interview for DSM-III-R Personality Disorders (SCID-II).

Results: The total sample consisted of 837 adolescents, 43.7% males and 56% females. Age range was 12-18 years (mean 14.9, sd=1.5). Psychometric properties of AIDA-Turkey were similar to those of original AIDA. Total reliability is .93, two main subtest reliabilities are .83 and .90, and the other subtest reliabilities vary between .65 - .80. In comparisons of the school sample with the clinical adolescents AIDA-Turkey is found to be capable of distinguishing the two groups significantly from each other (d=1.03, p=.000). The analysis conducted for the convergent validity indicated that the subscales of AIDA-Turkey are negatively correlated (vary between -.43 and -.60) with OSIQ, that means with the increase of identity diffusion positive self-development is decreasing.

Conclusion: AIDA Turkey is established as a reliable and valid instrument to be used in the evaluation of the identity development and in distinguishing the identity diffusion of the Turkish adolescent sample.



## S02-07: Novel Therapeutic Approaches for Transitional Age Youth

Dr. Maalobeeka Gangopadhyay New York Presbyterian-Columbia University

We can appreciate the cultural components that complicate access to mental healthcare for transitional age youth both with and without co-morbid medical illness. Looking through the lens of collaboration and integration both within a system and in a community, we examine the needs of two populations that are minorities in the schema of general mental health care and novel approaches child and adolescent psychiatrists are implementing to make care accessible and effective. As providers for children and adolescents who appreciate the developmental trajectories that are affected by medical illness and cultural variations, Drs. Rego, Canetti, Zerrate and Hoffman will present their perspectives on transitioning youth to adult providers and evidence based treatment modalities that can help bridge the gaps for minority youth and those who are unable to go to community mental health centers in the "typical" fashion.



### 3116 - Challenges of Transitioning Youth in Mental Healthcare Systems

Dr. Adriana Rego New York Presbyterian-Morgan Stanley Children's Hospital

#### Objectives:

The importance of facilitating care from adolescent outpatient health setting to adult clinics has been written about and discussed extensively with regards to chronic medical illnesses and disabilities. Improvement in facilitation is associated with better patient care and outcomes. Conversely, poor or no facilitation leads to fewer visits and poorer health outcomes. Although much has been written with regards to chronic illnesses and disabilities, there is limited discussion and even less research with regards to the transition of adolescents to adult psychiatric care.

#### Methods:

The goal of this talk is to look more closely at the practical challenges faced in successfully transitioning adolescents to adult care including the practical, psychodynamic and interpersonal issues that can arise. We will also identify methods of troubleshooting to prevent interruptions in care and identify some areas for future study.

#### Results:

In this session through case examples we will explore the obstacles that can interfere with the hand off between teams and the challenges to helping patients continue in treatment. Cases discussed will include three adolescents transitioned to a psychiatric clinic for young adults with varying success. As part of this discussion we will also touch on the challenges faced by clinicians with regards to termination and other psychodynamic issues. We will also discuss important areas of focus for the future.

#### Conclusions:

Effective facilitation of the transition from adolescent outpatient settings to adult has been shown to improve compliance in medical settings. We will review what might be learned both from the specific case challenges discussed and from the methods proposed in the literature for the medical setting.



## 3117 - Making Evidence Based Treatment Accessible in Multilingual Multicultural Environments

Assistant Professor of Psychiatry at CUMC (Columbia University Medical Center) Alexandra Canetti

New York Presbyterian-Morgan Stanley Children's Hospital

### Objectives:

The Hispanic population of the United States as of July 1, 2015 was 56.6 million, making people of Hispanic origin the nation's largest ethnic or racial minority. Hispanics constituted 17.6 percent of the nation's total population (United States Census Bureau 2015). It has been shown that Latino children in the United States are at high risk for mental health disorders originating from multiple factors including trauma, assimilation stressors and discrimination. Too often language barriers interfere with this population's ability to receive quality mental health care. Little has been studied in regards to the effects of Dialectic Behavioral Therapy (DBT) for adolescents with mental health illness who are living in multilingual, multicultural environments. This presentation will focus on the development of a bilingual multifamily DBT skills group as provided by bilingual and bi-cultural providers.

#### Method:

Clinical presentation of a bilingual multifamily skills training group will be used to illustrate the application of DBT to adolescents receiving services in a community mental health clinic. We provide services within the division of Pediatric Psychiatry at Columbia-Presbyterian Hospital in New York City. Our patients are all enrolled in individual DBT and have access to coaching phone calls. The group therapy is provided once a week for 75 minutes sessions without a break. We enrolled 5 adolescents and their families in a module-by-module course were we accept new referral during every orientation/entry point. The handouts are provided in English to the adolescents and in Spanish to their parents. We alternate the language as we go, many times asking the adolescents to express themselves in Spanish after they have share their thoughts and ideas in English.

#### Results:

By providing services in English and Spanish, many families who otherwise would not have access to this treatment modality are able to participate and receive quality care. Cultural competence is taken into account and weaved into the therapy.

#### Conclusions:

The benefits of receiving care as provided by bilingual providers included greater privacy, sense of trust, and accuracy of communication. The group leaders, a psychologist and a psychiatrist who both are bilingual and bi-cultural, are able to understand the nuances of the Latino culture and adjust the treatment as needed to better fit the needs of this community.



## 3118 - Technology in the Age of Transition

Assistant Professor (Clinical) of Psychiatry at Warren Alpert School of Medicine at Brown University Pamela Hoffman Hasbro Children's Hospital

#### Objectives:

As technology becomes more ubiquitous in people's lives, we are surrounded by available resources to help patients. Deciphering what are appropriate options within an ever changing landscape of progress becomes an unexpected responsibility for clinicians. For patients with medical and psychiatric co-morbidities, there are several unique situations which makes the use of online resources particularly helpful (difficulties with keeping multiple appointments; physical limitations; inability to find enough of similar people in a nearby cohort for support; limitations of experts in the geographic region).

#### Methods:

Given the unique position of children and adolescents with co-morbid psychiatric and medical issues, we will review the literature available for interventions involving technology. We will review the literature using keywords of mHealth, technology, telemedicine and co-morbid psychiatr\* to cast a wide net. We will look specifically in journals dedicated to mHealth, technology and telecare.

#### Results:

We will present the results of a review of the literature and discuss some of the more popular uses of technology for treatment of children and adolescents with co-morbid disorders. We will also discuss various genres of technology for the treatment of these patients including telemedicine, online support groups and blogs, and mHealth. We will review some of the more widely used technologies and discuss gaps in the technology as well as legal, regulatory and ethical situations inherent to using newer technology for patient care.

#### Conclusion:

After discussion of the uses of technology as well as concerns of the implications of using this technology, we will open the floor to questions and further discussion regarding technology and treatment of patients with co-morbidities.



### 3119 - Evidence Based Treatments in Latino Emergent Adults

Assistant Professor of Psychiatry at CUMC (Columbia University Medical Center) M. Carolina Zerrate

New York Presbyterian-Morgan Stanley Children's Hospital

#### Objectives:

It is well known that minority populations are less likely to access mental health treatment. It is estimated that by the year 2050 more than 50% of the US population will be comprised of minority groups, the largest of which will continue to be Latinos (United States Census Bureau, 2012). The implementation of The Patient Protection and Affordable Care Act has allowed millions to gain health insurance coverage, with the largest groups of newly insured being emergent adults (EA) and Latinos (U.S. Department of Health & Human Services). Anxiety disorders are vastly under recognized and under-treated (Merikangas 2011; Wang, 2005) and one of the leading causes of disability among emergent adults. Evidence based treatments (EBT) for anxiety disorders are well established, and core principles for cultural competent treatments have been developed, yet there is a paucity of information on the treatment of minority young adults with anxiety disorders. This presentation will illustrate the development of the Washington Heights Youth Anxiety Center (WH-YAC), a clinical program within the New York Presbyterian Hospital Youth Anxiety center, created with the goal of providing minority EA with state of the art treatment by integrating EBT and cultural competence in a community setting.

### Methods:

Key points from relevant studies highlighting the need to treat common mental health disorders like anxiety disorders among underserved EA in the US will be presented. An overview of the development, challenges and future directions of the WH-YAC will be provided by the program's medical director.

Results: This talk will showcase the effort at the WH-YAC to better prepare practitioners and create programs specifically equipped to address the needs of Latino EA, by adapting treatment strategies, implementing and disseminating a new standard of care for minority young adults with anxiety disorders.

Conclusions: There is a clear gap in the mental health treatment of minority populations. Development and dissemination of programs focused on providing evidence based, and culturally competent mental health services for Latino emergent adults are a necessity and of particular relevance in this era of health care reform. This presentation will illustrate a response to this need and an effort to help close the disparity gap.



S02-08: Transition: research and policy

Dr. Peter Hindley Royal College of Psychiatrists

Policy and research need to work hand in hand to improve transitions for young people. We present key findings from NICE on transition and the RCPsych on youth services complimented by research findings on the experience of young people with ADHD focusing on the experience of key stakeholders and the impact of social identity



## 2622 - Good services for young people

Dr. Peter Hindley

The Faculties of Child and Adolescent Psychi try and General Adult Psychiatry's joint guidance on youth services. The policy covers key research findings, service models and recommendations for youth services models. The policy was developed by a joint working party from both faculties supported by parent advisors from Young Minds



## 2623 - NICE guidance on transition from children's to adults' services for young people using health and social care

Dr Clare Lamb Michael Rutter Centre, Maudsley Hospital

This presentation will cover the development and recommedations for implementation of this comprehensive piece of guidance on transition from children's to adults' services. It will act as the key driver for service development in England and Wales in the near to medium future



2624 - Young people with Attention Deficit Hyperactivity Disorder (ADHD) in transition from children's services to adult services (Catch-uS): a mixed methods study

Dr. Astrid Janssens University of Exeter Medical School

We report findings from a national quantitative study of young people with ADHD transitioning from children's services (CAMHS and community paediatrics) to adult services (AMHS and general practice). This is complimented by a qualitative study of the experience of transition by young people, parents and carers, referrers and receiving services. This is the most comprehensive study of its kind in the UK to date.



### 2625 - Exploring social identity change during mental healthcare transition

Dr Niamh McNamara Nottingham Trent University

Adolescents attending Child & Adolescent Mental Health Services (CAMHS) requiring ongoing care are transferred to adult services (AMHS) at eighteen. Many young people with service needs are not being referred, or are refusing referral to AMHS. This study explored these issues from a social identity change perspective. Transcripts of interviews conducted with young people (n=11), their parents (n=5) and child (n=11) and adult (n=8) psychiatrists were thematically analysed. Transition to AMHS confirmed an illness identity. Young people adopting this identity saw continued service engagement as identity-congruent. Disengagement was attributed to failure to adopt an illness identity or to an emerging adult identity associated with greater independence. Fractious professional relationships hindered transition and delayed the formation of a therapeutic alliance with AMHS staff. Disengagement post-transfer was linked to incompatibility between the AMHS service remit and specific illness categories. This study demonstrates how an intersection between identities shapes service engagement and disengagement.



# S02-09: Recent advances on bipolar disorder in children and adolescents: a European perspective.

S02-09: Recent advances on bipolar disorder in children and adolescents: a European perspective.

PD Dr. Carmen Moreno Hospital General Universitario Gregorio Marañón

While there has been a steady growing interest on the clinical and public health implications of bipolar disorder affecting children and adolescents, research in Europe is limited, and most knowledge to date comes from US studies making it difficult to extrapolate findings to European clinical settings. To cover this gap in research, this symposium will report on recent data from European studies on early-onset bipolar disorder and bipolar disorder offspring. Neuroimaging and inflammatory processes in bipolar youth and risk factors for psychopathology in bipolar offspring will be reported. A review on current status of treatment interventions for bipolar children and adolescents will also be included.



# S02-09: Recent advances on bipolar disorder in children and adolescents: a European perspective.

## 3206 - Pro- and Anti-inflammatory markers in Early-onset Bipolar Disorder

MD., PhD Carmen Moreno

Background and objectives: Bipolar disorder (BD) is associated with activation of several components of the inflammatory and oxidative stress response. Data in children and adolescents are still sparse with previous studies focusing only on some specific cytokines not covering the inflammatory and anti-inflammatory cascade broadly (1). We aim to thoroughly explore differences in inflammatory and oxidative stress markers between clinically representative adolescents with bipolar disorder and matched healthy controls.

Methods: We assessed 48 children and adolescents with BD and 33 healthy controls matched by sex, age and parents' socioeconomic status. Plasma biomarkers were available for 33 patients with BD and 20 controls. Participants underwent a complete clinical evaluation and DSM-IV diagnoses were obtained by means of the K-SADS-PL. Inflammatory and oxidative stress markers determinations were performed at Synergy 2, BioTek. Categorical variables were compared with Pearson  $\chi 2$  test. Quantitative variables were compared using non-parametric Mann-Whitney U test or student T-test as appropriate. Correlations between inflammatory markers and level of functioning and psychotic symptoms were explored with Pearson and Spearman coefficients.

Results: BD patients and controls did not present statistically significant differences on age, gender, or ethnicity. BD children and adolescents showed statistically significant differences with controls in biochemical determinations, including increased levels of pro-inflammatory and oxidative stress markers: NO2, MDA, TNF- $\alpha$ , IL-1 $\beta$  (all p<0.005), and decreased levels of total antioxidant status (TAS) and of the anti-inflammatory marker 15dPGJ2 (all p<0.005). Level of functioning and severity of illness were not significantly correlated with parameters of inflammation and oxidative stress.

Conclusions: There is a pro-inflammatory and oxidative stress status in early-onset BD, what suggest possible new targets for the development of therapeutic interventions in this clinical population.

(1) Goldstein BI, Lotrich F, Axelson DA, Gill MK, Hower H, Goldstein TR, Fan J, Yen S, Diler R, Dickstein D, Strober MA, Iyengar S, Ryan ND, Keller MB, Birmaher B. Inflammatory markers among adolescents and young adults with bipolar spectrum disorders. J Clin Psychiatry. 2015 Nov;76(11):1556-63.



# S02-09: Recent advances on bipolar disorder in children and adolescents: a European perspective.

## 3252 - Neuroimaging findings in adolescents with Bipolar Disorder compared to age matched healthy controls

Soledad Romero

Objective: Onset of Bipolar Disorder (BD) usually occurs during adolescence. Also adolescence is a period of important neurodevelopment brain changes. Neuroimaging studies in adolescents with BD may help to better understand the neurobiological mechanism that occurs at the onset of the illness during adolescence. The aim of this study is to investigate grey matter (GM) volume characteristics and the microstructure of white matter (WM) tracts of adolescents with BD type I or II relative to age-matched controls.

Methods: A 3T MRI scanner was used to acquire anatomical images and diffusion tensor data for 47 BD subjects (type I or II) and 44 healthy controls, aged 12-19 years old. DARTEL for voxel-based morphometry (VBM) was used to analyzed differences in GM volume. Whole-brain, voxel-wise group differences in fractional anisotropy (FA) were investigated between participants with BD and healthy controls. Results were FWE corrected.

Results: VBM results indicated differences in the bipolar group as compared to the control group in areas such as the anterior cingulate cortex and superior parietal cortex, precuneus, postcentral. Adolescents with BD also show decreased white matter integrity in circuits implicated in cognitive and emotion regulation functions as well as the body of the corpus callosum. Conclusions: Our results demonstrate GM and WM structural abnormalities in neuronal systems implicated in processing and regulate emotions, memory and self-awareness processing



# S02-09: Recent advances on bipolar disorder in children and adolescents: a European perspective.

## 3257 - Predictors of dimensional clinical profiles in child and adolescent offspring of patients with bipolar disorder

Dr. Covadonga M. Diaz-Caneja

Objectives: Positive family history is the most robust predictor of bipolar disorder (BD). The study of child and adolescent offspring of patients with BD (BD-offspring) provides a unique opportunity to explore early manifestations of disease and identify risk and resilience factors. Dimensional approaches to the study of BD-offspring allow for tracking of subtle manifestations of liability, and can improve the characterization of the bipolar prodrome and at-risk populations2. Our aim was to describe dimensional clinical profiles in BD-offspring and to assess their association with offspring clinical features and parental factors. Methods: Factor analysis was applied to parent-report dimensional measures of temperament (Revised Dimensions of Temperament Survey), general psychopathology (Strengths and Difficulties Questionnaire), hyperactivity (Conner's Parent Rating Scale) and mania (Child Mania Rating Scale) in a sample of 76 BD-offspring aged 6-17 years. Cluster analysis was used to identify subgroups of BD-offspring based on the identified factors. Logistic regression models were used to identify individual and parental predictors of belonging to these subgroups. Results: Four factors (anxiety-depression, hyperactivity-inattention, social difficulties and rhythmicity) were identified. Based on these factors, two clusters were identified within BD-offspring. Group 1 ("vulnerable BD-offspring"; N=31, age 12.7 ± 3.1 years, 71% male) showed significantly higher scores in clinician-administered scales of depression, mania and prodromal symptoms, poorer functionality and higher rates of lifetime affective disorders than both Group 2 ("resilient BDoffspring"; N=45, age 11.9 ± 3.1 years, 48.9% male) and community control offspring (CcO; N=101, age 11.7  $\pm$  3.2 years, 44.9% male). No significant differences were found between Group 2 and CcO. Personal history of developmental delays (OR: 5.37, 95% CI [1.19-24.21], p=.029) and more stressful events in the past year (OR: 4.49, 95% CI [1.15-17.51], p=.031) in the child, as well as comorbidity with anxiety disorders in the affected parent (OR: 1.11, 95% CI [1.02-1.22], p=.019) were significantly associated with belonging to the group of "vulnerable BD-offspring". Conclusion: Parental and individual factors appear to increase clinical vulnerability in BD-offspring. Dimensional measures can help to identify subpopulations at higher risk within BD-offspring, guiding the development of targeted early interventions.



# S02-09: Recent advances on bipolar disorder in children and adolescents: a European perspective.

## 3258 - The treatment of children and adolescents with bipolar disorder: current status and research needs

Dr. Benedetto Vitiello

Objectives: Bipolar disorder often starts in youth, but both its diagnosis and treatment can be challenging. This presentation will examine the current evidence for the efficacy and safety of treatment interventions for pediatric bipolar disorder, and will discuss relevant research needs. Methods: The most recent randomized clinical trials (RCT) of therapeutic interventions in pediatric bipolar disorders will be critically reviewed. Results: A number of RCT have demonstrated that several atypical antipsychotics are effective in the acute management of bipolar I in a manic or mixed episode in patients aged 10 years and older. Lithium too has been found to be effective, although less so than antipsychotic treatment. There is little evidence to support the efficacy of mood stabilizers. Both antipsychotics and lithium have important safety and tolerability issues. Few studies have addressed the long-term treatment of bipolar, the depressive phase of the disorder, and bipolar II. Conclusions: There are both similarities and differences between youths and adults in their response to treatments for bipolar disorder. While effective treatments for pediatric bipolar exist, their use if limited by safety and tolerability concerns. More effective and better tolerated interventions, especially for the depressive component of the disorder, are needed.



## S02-10: Mental health services and interventions for refugee children and adolescents

Matthew Hodes Imperial College London

This symposium describes important innovations in the delivery of mental health services and treatments to young asylum seeking and refugee children. The symposium is based on recent research and evaluation with this population. Separate presentations describe:

- 1.development and evaluation of a community group based intervention in Kurdistan, using principles of task shifting
- 2. school based services in the UK.
- 3. evaluation of characteristics of young help seeking refugees and service use in Greece.
- 4. review of primary and secondary prevention of psychological distress in unaccompanied refugee minors.



## 3269 - Crisis Intervention Program for Children and Adolescents (CIPCA) for War Affected Children in Kurdistan

Associate Professor and specialist physician in Child and Adolescent Psychiatry Abdulbaghi Ahmad

### Objectives:

Posttraumatic psychopathology has been identified as longstanding and devastating, particularly after childhood trauma. However, no evidence-based prevention has been identified. The Crisis Intervention Program for Children and Adolescents (CIPCA) was developed at the Metin Health House (MHH) in Duhok, Kurdistan Region of Iraq (KRI), to provide early cost-effective and time-saving crisis intervention to prevent posttraumatic psychopathology among the surviving children and adolescents from the war of the Islamic State in Iraq and Syria (ISIS). Methods:

In a pilot project supported by WHO and the Directorate of Health in Duhok governorate, 37 health professionals received one-week training of trainers (ToT) in group at the MHH. Every two certified trainers provided one week of training to a group of 30 teachers inside the camps of the Internally Displaced Peoples (IDP) around the city of Duhok. In all, 300 IDP teachers received the CIPCA group leader certificate. Every two group leaders provided a single one-hour group intervention to 30 IDP school children. In total, 22000 school children received CIPCA intervention, 15% showed psychological distress during the group inter-vention, 50% of them needed treatment.

To examine the effectiveness of CIPCA in preventing posttraumatic psychopathology, in-formed consent was obtained from 4500 responding school children and their caregivers to participate in a 5 years follow-up study. They were class-randomized to CIPCA intervention or controls, consequently. Caregivers filled the Child Behavior Check List (CBCL) before the CIPCA intervention and annually in 5 years.

### Results:

366 completed CBCL were received before the intervention. Due to lack of funding, only 28 participants were traced at the first year follow-up. All the caregivers refilled the CBCL. Both girls and boys improved in problem scores after CIPCA compared with deterioration among the controls.

#### **Conclusions:**

Improvement in problem scores among CIPCA receivers at one-year follow up seems to be promising. Funding is needed for further follow-ups to obtain evidence to confirm the effectiveness of CIPCA in preventing posttraumatic psychopathology. Recent data from different child populations will be presented.



## 3111 - Developing a mental health toolbox to help refugee children in schools

Associate Professor in Child and Adolescent Psychiatry MIna Fazel University of Oxford

### **Objectives**

Improving access for children to mental health services and availability to mental healthcare is an area of high priority. This is especially the case for vulnerable populations, including refugee children where it is estimated that upto 90% who might need mental health services do not access them. This presentation will report on the development and testing of a psychotherapeutic toolbox developed for teachers that can be delivered following a two-hour training session.

#### Methods

A School Mental Health Toolbox of 8 commonly used psychotherapeutic tools and skills was developed, including cognitive-behavioural techniques as well as trauma-informed approaches and mindfulness meditation. These were taught to over 200 school teachers and other front-line school staff. Teacher measures on utilization of psychotherapies for students as well as self-efficacy measures were taken at base-line and at 4-6 month follow-up to determine whether such skills are susequently used with children at their schools.

#### Results

Over 200 front-line school teachers attended training in the School Mental Health Toolbox and follow-up data was gathered on over 100 at 4-6 months post-training. 76% reported that they had used the toolbox in their everyday work with sleep hygiene and relaxation techniques most commonly used. 20% of those using the toolbox had tried it with more than 5 students. Many had also found the training useful for their own needs.

### Conclusion

There is an urgent need to develop methods to improve access and availability for vulnerable and refugee students to psychotherapeutic input. Many children have limited access to mental health services, however most are attending school. If the school environment can be enabled to better assist those with emotional and behavioural difficulties this is likely to improve their experience of school and help them manage the academic work and peer opportunities available to them. Scalable and practical solutions are needed and the School Mental Health Toolbox is an example of one such method to improve access for refugee children to mental health interventions.



## 3110 - Psychosocial and mental health problems in youth refugees, immigrants and Greeks during 2005-2014: A retrospective study

Prof. Dr. Dimitris Anagnostopoulos

Objectives: Since 1989, Greece has been transformed into a host country for immigrants and refugees from east Europe and other continents, mainly from countries at war. Immigration involves a number of stressful events for children, adolescents and their families. The purpose of this study was to examine the differences in psychopathology between immigrants, refugees and Greeks before and after 2010.

Methods: This study was retrospective. Three hundred and six out of 1182 files of immigrants who referred to the Department of Child and Adolescent Psychiatry (DeCAP) during 2005-2014 were randomly selected for the purposes of this study. It was found that 90 (29.4%) and 216 (70.6%) files of youth immigrants-refugees came from the year period 2005-2009 and 2010-2014 respectively. These data were matched with age and sex with 151 files of natives who referred to the clinic during the aforementioned decade. Hence, the final sample consisted of four groups: 1) youth immigrants (N=90) who referred to the DeCAP during 2005-2009, 2) youth refugees (N=216) who seek for help during 2010-2014 (mainly refugees from countries in conflict), 3) Greeks (N=72) who referred to the DeCAP during 2005-2009 (before the detrimental effects of the Greek economic crisis to be apparent) and 4) Greeks (N=79) during 2010-2014. The initial psychiatric diagnoses were made by child psychiatrists through clinical interviews based on ICD-10 diagnostic criteria, in cooperation with different members of the multidisciplinary team, according to the specific request and needs of each case. For the current study, two child psychiatrists independently reviewed the files in order to re-examine and confirm the initial diagnosis.

Results: The findings demonstrate that refugees (2010-2014) seek for help mainly because of social factors and factors related to their health status. In particular, it was shown that refugees had a greater number of factors influencing health status (Z) than immigrants (2005-2009) and Greeks (2010-2014). Additionally, refugees (2010-2014) received more often general psychiatric examination, requested by authority than immigrants and Greeks. At the same time the proportion of Greeks (after 2010) who received psychiatric diagnosis (F) was more frequent than that of refugees.

Conclusions: These results highlight the impact of both refugee influx and economic crisis on child and adolescent wellbeing.



## 3113 - Prevention of Psychopathology in Unaccompanied Refugee Minors

Specialist Trainee in Child & Adolescent Psychiatry Ritu Mitra

### Objectives

As increasing numbers of Unaccompanied Refugee Minors (URM) are arriving in Europe, there is a need to investigate which factors influence their mental health and psychological resilience. This review aims to identify post settlement influences, living arrangements, access to services and effective treatments that may improve mental health outcomes for URM's.

#### Methods

A systematic literature review was conducted of published papers in any language for children (<18 years) entering a host country unaccompanied and seeking asylum. Specific studies were eligible if they examined any treatment or non-treatment influences on mental health or psychological resilience for the URM. Eleven published quantitative studies were identified.

### Results

After arrival in the host country, those given more autonomy versus a restricted reception setting reported fewer anxiety symptoms. Regarding living arrangements, those in foster care had lower risk of PTSD and lower depressive symptoms compared with those with semi-independent care arrangements.

Considering recognition of mental health problems, it was suggested that only 30% of URM's have foster-parents or guardians who can detect a mental health need. Looking at access to mental health services, it was found that URM's were less likely than accompanied children to receive trauma-focussed interventions, receive cognitive therapy or anxiety management or even practical assistance with basic social needs.

With regard to treatment evaluation, only case series were identified. These two studies found cognitive behavioural therapy improved PTSD symptoms and mental health outcomes. A less structured approach (mental health counselling alone), did not improve functional health outcomes.

### Conclusion

The factors suggested by this review have implications for planning resources for URM's. More supportive living arrangements are associated with lower PTSD and depressive symptoms. URM's have low access to mental health services and this suggests unmet need. Inadequate research has been carried out with URM's including investigation of treatment efficacy.



## **S02-11:** Refugee Youth in Europe and Low-Income Countries

Dr. Karima Assel

To review the situation of unaccompanied and accompanied refugee youth in 6 different demographic areas (Finland, Norway, Sweden, Germany, Austria, low-income countries) and present individual studies in each of these areas.



## 3123 - Prevalence of psychiatric disorders among unaccompanied asylumseeking adolescents in Norway.

Marianne Jakobsen

Background: Unaccompanied asylum-seeking children (UASC) are known to be subjected to several potentially traumatic life events, risking more mental health problems than other populations of same age. In this study, we aimed to explore the prevalence of psychiatric morbidity at an early stage after arrival to the host country.

### Methods/design:

We performed structured clinical interviews (CIDI) with 160 male UASC from different countries (Afghanistan, Somalia, Iran), after four months in Norway. Most of the participants had experienced life threatening events (82%), physical abuse (78%), or loss of a close relative (78%) in their former life.

Results: 41.9% of the participants fulfilled diagnostic criteria for a current psychiatric disorder. The most prevalent diagnosis was PTSD (30, 6%), followed by MDD (9, 4%), Agoraphobia (4, 4%) and GAD (3, 8%).

Discussion: Implications of this vulnerability call for more mental health resources in the early stages of the asylum process. Increased awareness of psychiatric morbidity in UASC may improve the prognosis, give more appropriate care, and ease the integration process on all levels of society.

The results were published in: Clinical practice & Epidemiology in Mental health, 2014, 10. 53-58



## 3124 - Narrative Exposure Therapy for immigrant children traumatized by war: Results from randomized controlled trial

Samuli Kangaslampi

Background: Millions of children worldwide suffer from posttraumatic stress disorder (PTSD) symptoms and other mental health problems due to repeated exposure to war or organized violence. Forms of cognitive-behavioral therapy (CBT) are the most commonly used treatment for PTSD and appear to be effective for children as well, but little is known about the mechanisms of change through which they achieve their effectiveness. Here we present the preliminary results of a randomized controlled trial (RCT) studying the effectiveness and mechanisms of change of Narrative Exposure Therapy (NET), a CBT-based, manualized short-term intervention for PTSD symptoms resulting from repeated traumatization, in immigrant children traumatized by war.

### Methods/design:

Up to 40 9–17-year-old immigrant children who have experienced war, military violence or displacement and suffer from PTSD symptoms are randomized into intervention (NET) and control (treatment as usual, TAU) groups of equal sizes. The study is conducted as a multicentre, pragmatic RCT in a usual care setting. The effectiveness of NET treatment will be compared to TAU positive control group, on PTSD. The effects of the intervention on traumatic memories will be studied as potential mechanisms of change mediating overall treatment effectiveness.

Results: Data collection is still under way and the preliminary results will be presented in the congress.

Discussion: The results of this trial will provide evidence for the effectiveness of NET in treating trauma-related symptoms in immigrant children affected by war. The trial will also generate insights into the complex relationships between PTSD and memory functions, and help guide the future development and implementation of therapeutic interventions for PTSD in children.

Trial registration: Protocol and Registration and Results System ClinicalTrials.gov NCT02425280

Keywords: NET, CBT, therapy, effectiveness, memory, war, posttraumatic stress disorder, children



## 3125 - Emotional expressiveness and avoidance in narratives of unaccompanied refugee minors

Julia Huemer

Objectives: The aim of this study was to examine a cohort of unaccompanied refugee minors (URMs) by means of psycholinguistic methods in order to obtain a more subtle picture of their degree of traumatization.

Methods: Twenty-eight participants were included in the Stress-Inducing Speech Task (SIST) consisting of a free association (FA) and a stress (STR) condition. Narratives were examined by means of (1) quantitative parameters (word count); (2) psycholinguistic variables (temporal junctures, TJs), narrative structure, referential activity (RA)—a measure of emotional expressivity; and (3) content analysis ratings.

Results: Word count was significantly lower than in age-matched norms. In the FA condition, TJs were lower, but in the STR condition, rates were comparable. RA was significantly higher in both conditions. Content analysis ratings showed that the experiences described by these youths were potentially traumatic in nature.

Conclusions: This pattern of narrative shows a mixture of fulfilling the task demand, while containing an emotionally charged narrative. Narrative structure was absent in the FA condition, but preserved in the STR condition, as URMs struggled with the description of non-normative events. This indicates that these youths have not yet emotionally dealt with and fully integrated their trauma experiences.



## 3126 - Mental health interventions and services for refugee children in middle- and low-income countries

Panos Vostanis

Objectives: To critically consider policy, evidence, population trends and emerging intervention models for refugee children in low- and middle-income countries.

Methods: As part of the World Awareness for Children in Trauma programme (WACIT: www.wacit.org), a six-dimension service model based on trauma-focused interventions and the ecological resilience framework was developed. This was applied to asylum-seeking and refugee children living in different contexts, and usually in the absence of specialist resources.

Results: Case studies and research findings will be presented from services for unaccompanied minors in Greece, Syrian refugee children in Turkey, and victims of internal displacement in Kenya. These will relate to establishing needs, stakeholder input, joint care pathways, and interface between NGOs and child mental health services.

Conclusions: The integration of trauma-focused interventions and resilience-building into existing networks and systems is a resource-effective model to maximize capacity in various adverse contexts for refugee children with high levels of complex mental health needs.



### 3127 - Attitudes towards Unaccompanied Refugee Minors in Germany

Paul Plener

Objectives: In Germany numbers of refugees steeply increased in 2015, with nearly a third being below the age of 18. Unaccompanied refugee minors (URM), are a vulnerable group and in addition to pre-flight and flight stress, the acculturation process can work as potential stressor. Our aim was to explore attitudes towards URM in the general population. Methods: We conducted a study in a representative sample (n=2524) of the German population (ages 14 years or older) in 2016. Results: Only 22.8% of participants were supportive of opening up to the intake of more URM. Although few participants argued in support of immediate deportation of URM in general (38.6%) or of URM from the Middle East (35.3%), a majority advocated for immediate deportations of URM from the Balkan region (62%) or from Africa (51.1%). Difference in the variance regarding attitudes towards deportation were explained mostly by right-wing political attitudes as well as by islamophobic attitudes and general rejection of asylum seekers. High rates of approval where found for guaranteeing the same chances to schooling or apprenticeship for URM as to German children and granting a right to permanent residence to those finishing their education. Conclusion: Education and qualification seem to be perceived as key elements for integration. Studies about needs and wishes of URM consistently report a high motivation to learn the language of their new host country and attend school. This underlines the importance of education as key factor in integration.



## 3128 - Overrepresentation of unaccompanied refugee minors in inpatient psychiatric care

Björn Ramel

### **Objectives**

Unaccompanied refugee minors (URMs) have high levels of psychiatric symptoms, and concerns for their access to mental health services have been raised. The aim of the study was to compare inpatient psychiatric care between URMs and non-URMs. Methods

All admissions in 2011 at the emergency unit were identified and divided into URMs (n = 56) and non-URMs (n = 205). On the basis of unique patients' first treatment occasion, a group level analysis was performed on gender, age, treatment duration, additional treatment occasions/patient, involuntary care and involuntary care by gender, and ICD-10 principal diagnosis. To retrieve further sample characteristics, a questionnaire was administered to the physicians responsible for admitting patients in 2011.

### Results

More URMs than non-URMs exhibited self-harm or suicidal behavior in conjunction with referral. 86% of URMs were admitted with symptoms relating to stress in the asylum process. In the catchment area, 3.40% of the URM population received inpatient care and 0.67% inpatient involuntary care, compared to 0.26% and 0.02% respectively of the non-URM population, both comparisons p < 0.001. There were more boys in the URM group (95%) compared to the non-URM group (29%). A difference in use of involuntary care disappeared after adjusting for gender. No differences were found in diagnoses except for neurotic disorders (F40-48), which were more common in the URM group.

### Conclusion

From an epidemiological perspective, URMs were overrepresented in inpatient psychiatric care. The results were published in SpringerPlus20154:131, DOI: 10.1186/s40064-015-0902-1



S02-12: Electro-physiological brain correlates of developmental psychopathology and the early adverse experience that poses risk for it

Virginie Perizzolo HUG, unité de recherche du SPEA

The present symposium submission for the annual congress of the European Society for Child and Adolescent Psychiatry considers electro-physiological brain correlates of developmental psychopathology and the early adverse experience that poses risk for it. Four different speakers would present their work and results reporting: 1) asymmetry of frontal cortical electroencephalogram (EEG) activity as a biomarker of vulnerability to emotional and behavioral problems in childhood; 2) results from an attention deficit/hyperactivity disorder (ADHD) treatment study comparing slow cortical potential (SCP) neurofeedback and behavioral self-management training in children; 3) temporal dynamics of spontaneous gaze processing in unaffected offspring of parents with bipolar disorder; and 4) the effect of maternal posttraumatic stress disorder related to interpersonal violence (IPV-PTSD) on school-aged child symptoms in response to an emotional face matching task. The presentations will be followed by a discussion led by Prof. Christoph Michel.



## 2746 - Associations between frontal EEG asymmetry and infant emotional and behavioral problems

Mikko Peltola

Asymmetry of frontal cortical electroencephalogram (EEG) activity reflects emotion and motivation, with relatively greater right frontal activity linked to negative emotionality and withdrawal motivation, and left asymmetrical activity to greater approach motivation. To determine whether frontal EEG asymmetry is a reliable biomarker of vulnerability to emotional and behavioral problems in childhood, we used meta-analysis on 38 studies (N=2,523) to test whether children's frontal EEG asymmetry is consistently associated with the presence of familial risk factors and children's internalizing and externalizing symptoms. The presence of parental risk factors (e.g., depression or maltreatment) was significantly associated with greater relative right frontal asymmetry in children, with an effect size of d=.36. A weak relation was observed between greater relative right frontal asymmetry and children's internalizing symptoms (d=.19), whereas no association between greater relative left frontal asymmetry and externalizing symptoms was observed (d=.04). The presentation will discuss whether frontal EEG asymmetry is best conceptualized as a direct marker of developmental risk or as a susceptibility factor that moderates the influence of the environment on developmental outcomes.



## 2747 - Temporal dynamics of spontaneous gaze processing in unaffected offspring of parents with bipolar disorder

PhD Cristina Berchio

Bipolar disorder (BD) is high heritable condition that is characterized by atypical face processing. In this study we wanted to investigate the temporal dynamics of spontaneous gaze processing in unaffected offspring of parents with BD. During high density EEG recording, 14 offspring performed a validated 2-back working memory (WM) task, in which neutral faces with direct and averted gaze were presented.

Preliminary data revealed that offspring of parents with BD (age range: 15-25 years) have impairments in gaze processing with functional anomalies in the P100 and N170 evoked responses. Our preliminary results provide evidences of an early attentional bias toward neutral gaze in unaffected youth at high risk of BD.



2748 - EEG recording during an emotional face matching task in children of mothers with interpersonal violence-related posttraumatic stress disorder

Virginie Perizzolo HUG, unité de recherche du SPEA

The Geneva Early Childhood Stress Project (GECS-Pro) is a longitudinal research considering mothers exposed to interpersonal violence-related posttraumatic stress disorders (IPV-PTSD), non-PTSD controls, and the mothers' children. A goal of the follow-up or Phase 2 of this study aims to find differences in emotional processing between children of these two groups of mothers (5-9 years old). High density electroencephalography (HD-EEG) was recorded during an Emotional Face Matching Task (EFMT; MacNamara et al.,2013) and at rest. Given the results obtained in Phase 1 of the project, in which disturbances in emotion and arousal regulation were found to distinguish IPV-PTSD mothers and their children as compared to the controls and their children at ages 12-42 months, and, moreover, based on previous results (Curtis & Cichetti, 2013; Pollak et al., 2001), we expect to find in this longitudinal follow-up of the Phase I children a greater difficulty in identifying emotional faces among children of IPV-PTSD mothers compared to those of controls (i.e., as measured in reaction time and accuracy). We also expect a difference in the amplitude of event-related potentials (ERPs) that are involved in the perception and processing of facial expressions and associated emotions.

Preliminary results showed a trend for a decreased number of correct answers and an increased RT for all emotions during the EFMT among children of IPV-PTSD mothers when compared to those of controls. In addition, HD-EEG recorded in response to specific emotions supported the idea of differences in facial processing, given the higher amplitude observed in ERP component N170 among the control group. Our preliminary results seem to provide evidences that IPV and related maternal PTSD likely influence child emotion-appraisal and may have an attentional bias in processing emotional faces.



## 2750 - Neurofeedback Treatment for Children with ADHD — an effectiveness study

Hanna Christiansen

Introduction and Objectives: Behavior therapy is a treatment alternative for children with ADHD, and neurofeedback (NF) is a specific one that combines behavioral and neurocognitive elements with good effects, and supposedly without side effects. To date there is no study on ADHD treatment with NF in a naturalistic outpatient setting.

Methods: Based on a power-analysis, a total of 92 children aged 7-11 will be randomized to either NF or self-management treatment (SM), stratified for gender and stimulant medication. Children will recieve 36 high-frequent training sessions in 12 weeks with 6 sessions reserved for comorbid problems. Post treatment assessments are scheduled after 36 treatment sessions, as well as 6 and 12 months after treatment termination. Primary endpoints are the Conners 3rd rating scales for parents and teachers, and the Quantified Behavior Test (Qb-Test) that objectively assesses the three ADHD core symptoms inattention, hyperactivity and impulsivity. Results: So far, N = 42 children (n = 20 NF, n = 22 SM) participated in the study with data available. After 36 treatment sessions, children in both groups showed significant and overall large improvements on all Conners parent rating scales and on the majority of teacher rating scales, including academic achievement. Large and significant improvements were also obtained on Qb-test variables. Analysis of 6-months follow-up data demonstrates stability of effects over time. There are no significant differences between groups, yet. Treatment and assessment continues and results from a larger data base will be presented.

Discussion: Behavioral treatment in a high frequent naturalistic outpatient setting seems to be very effective in reducing ADHD symptoms, but possible long-term effects and group differences still need to be established.



2751 - Discussion

Tomas Ros

Final discussion about electro-physiological brain correlates of developmental psychopathology and the early adverse experience that poses risk for it



## S02-13: Social impairments across the psychosis continuum

### S02-13:Social impairments across the psychosis continuum

PhD Maude Schneider University of Geneva

Social impairments are an important source of disability in patients affected with a psychotic disorder and are also present in patients at clinical high-risk for psychosis. Furthermore, it has been shown that social deficits represent a risk factor for the development of positive symptoms of psychosis.

In this symposium, we will cover the topic of social impairments in different populations across the psychosis continuum: patients with attenuated psychotic symptoms (APS), patients affected by the 22q11.2 deletion syndrome (22q11DS) — a genetic condition associated with increased risk for the development of psychosis — and patients with a first psychotic episode (FEP). First, Dr. Armando will talk about metacognitive awareness in patients with APS or FEP, which represents an important function for navigating smoothly in the social world due to its links with self-regulation. Dr. Bearden will then present her work on social cognition in patients with 22q11DS and its relation to the emergence of psychotic symptoms. She will also discuss the specific brain alterations that are associated with social cognitive impairments in this population. Thirdly, Mrs. Fiksinski will explore the association between early social impairments (autism spectrum disorder symptoms) and the development of psychosis in a longitudinal study of patients with 22q11DS. Finally, Dr. Schneider will present a feasibility study as well as preliminary results about the effectiveness of an online social skills training intervention in adolescents and young adults with 22q11DS.



## S02-13: Social impairments across the psychosis continuum

2616 - An investigation on metacognitive abilities in children and adolescents with Attenuated Psychosis Syndrome and First Episode of Psychosis, preliminary findings.

Marco Armando

Introduction. Recent findings are showing impairments in metacognitive functioning in adults and late adolescents (aged  $\geq$  16 years old) with schizophrenia. These finding have been confirmed in patients with Attenuated Psychosis Syndrome (APS), suggesting that these alterations occurs even in the preliminary phases of the disorder and making them a putative early marker of an enhanced risk of developing schizophrenia. Moreover, metacognitive deficit are associated with certain positive symptoms (i.e. delusions and hallucinations), low insight and impairment in social functioning.

Unfortunately, these findings have never been replicated in children and young adolescents with schizophrenia and APS. This delay is partially due to the difficulty of assessing metacognitive competences in this age range. Indeed these abilities are still under development in children and youths. On the other hand, to date, no specific instruments aimed at investigating metacognitive competences in this age range have been developed.

The aim of the present study is to investigate metacognitive competences in children and adolescent with APS and schizophrenia with a new semi-structured interview tailored on this specific age range, the Metacognition Assessment Interview Children and Adolescents version (MAIA).

Method: Participants were 60 children and adolescents divide into three groups (APS, FEP, Control) with a recent onset of psychosis (age range = 9.1–17.5 years; M=13.74, SD=2.37). Mental disorders were assessed using the Schedule for Affective Disorders and Schizophrenia for School Aged Children Present and Lifetime Version (K-SADS-PL). All participants completed the Structured Interview for Psychosis-Risk Syndromes to the presence of APS/FEP criteria. Data on level of functioning and IQ was also collected. The MAIA has been used to assess metacognitive deficits.

Results: APS and FEP patients showed a worst metacognitive functioning compared to the control group. Interestingly, lack of metacognition was associated with negative symptoms and impairment in general functioning.

Discussion.

This is the first study investigating metacognitive competences in children and adolescents with APS/FEP with an instrument specifically developed for this age range. Preliminary results seem to be consistent with data emerged from the analysis conducted on adult population.



## S02-13:Social impairments across the psychosis continuum

## 2617 - Neural substrates of social cognitive deficits in youth at genetic high risk for psychosis

Prof. Carrie Bearden

Objectives: Social cognition is increasingly viewed as a potential endophenotype, or intermediate trait, that may act as a marker of vulnerability to psychosis. 22q11.2 deletion syndrome (22q11DS) represents one of the largest known genetic risk factors for psychosis, which can be identified very early in development. Our study had two goals: 1) to investigate the relative contributions of social versus non-social cognitive deficits to the prediction of psychotic symptom severity in individuals with 22q11DS; and 2) to investigate the underlying neural correlates of social cognitive deficits in this population, to determine whether they converge with those observed in idiopathic schizophrenia.

Methods: We previously found marked deficits in theory of mind (ToM), as well as deficits in non-social aspects of cognition (processing speed, verbal learning), present prior to onset of overt illness, in a large sample of youth at clinical high risk for psychosis (N=675) relative to healthy controls (N=264). Thus, we prospectively studied multiple domains of social and non-social cognition in 22q11DS youth (N=70, mean age: 15.9) and demographically matched typically developing controls, to determine whether social cognition better predicts symptom severity than does non-social cognition. The majority of these individuals (60 22q11DS and 56 controls) had structural neuroimaging data, which was investigated in relation to social cognition and social behavior (covarying for age and sex).

Results: ToM performance was the best predictor of positive symptoms in 22q11DS youth, accounting for almost 40% of the variance in symptom severity. Processing speed emerged as the best predictor of negative symptoms. Notably, in an unbiased whole brain analysis we found that measures of Theory of Mind and social behavior (Social Responsiveness Scale; SRS) were significantly associated with cortical thickness within the inferior frontal gyrus, insula, precuneus and superior temporal cortex, brain structures critically implicated in language and social processing.

Conclusion: As ToM was a robust predictor of positive symptoms in 22q11DS youth, these findings suggest that social cognition may be a valuable intermediate trait for predicting the development of psychosis.

Further, cortical thinning in hubs of the 'social brain', which substantially overlap with those primarily affected in idiopathic schizophrenia, may underlie these deficits.



## S02-13: Social impairments across the psychosis continuum

2619 - Autism spectrum and psychosis risk in the 22q11.2 deletion syndrome. Findings from a prospective longitudinal study.

Ania Fikskinski

Background: The 22q11.2 deletion syndrome (22q11DS) is the strongest single genetic risk factor for schizophrenia and related psychotic disorders, as individuals with 22q11DS have a 25% risk for schizophrenia. Many of these individuals also display impairment in social functioning, and rates of Autism Spectrum Disorders (ASD) are increased in 22q11DS populations. It has been hypothesized that ASD diagnosed in children with 22q11DS may actually represent the social-communicative defects often observed during the early developmental stages of schizophrenia. In this study we investigate whether those with autistic symptomatology and/or ASD are at a higher risk for developing schizophrenia. Methods: We prospectively studied 89 children with 22q11DS to test this hypothesis. At baseline, the Autism Diagnostic Interview, evaluating both current and early childhood behaviors, and the Social Responsiveness Scale were used to assess ASD. At follow-up, the Schedule for Affective Disorders and Schizophrenia for School-age Children (K-SADS) was used to determine the outcome measures; development of a psychotic disorder or the manifestation of psychotic symptoms.

Results: The average age ( $\pm$ SD) at first and last assessments was 14.3 $\pm$ 1.9 and 19.0 $\pm$ 3.0 years, respectively. Nineteen (21.3%) children developed a psychotic disorder. Contrary to our hypothesis, there was no significant difference in the proportion that developed a psychotic disorder, comparing those with (n=9, 17.3%) and those without ASD at baseline (n=10, 27%; OR = 0.500, 95% CI = 0.160 – 1.569, p = 0.235). Similar results were obtained using autistic symptom severity as quantitative predicting variable, psychotic symptoms as the outcome, and when correcting for age, gender and full scale IQ.

Conclusion: Results indicate that in children with 22q11DS, early childhood autistic features are not associated with an increased risk for subsequent development of psychotic disorders or symptoms, replicating previous retrospective findings in adults with 22q11DS. These results indicate that in these patients, ASD and psychotic disorders can emerge independently, as pleiotropic phenotypes. Additionally, our findings reveal that impairments on different domains of social functioning are highly prevalent in the 22q11DS population, even in the absence of an ASD diagnosis, and that those are not solely mediated by low IQ.



## S02-13:Social impairments across the psychosis continuum

## 2620 - Online social skills training for adolescents and young adults with 22q11.2 deletion syndrome

Maude Schneider

Objectives: Patients with 22q11DS are at high-risk of developing schizophrenia and encounter a wide range of social difficulties. This population is hence in high need of social skills interventions to improve quality of life and adaptive functioning. Because of the rarity of the disorder, we developed an online social skills training intervention – the SOSTA-22 digital version. In this study, we present data on the feasibility and preliminary effectiveness of this group intervention in adolescents and young adults with 22q11DS.

Methods: 21 participants aged between 11 and 26 years participated to the 12-week program of the SOSTA-22 digital version through the platform Skype. Information about parent satisfaction and perceived effectiveness of the intervention was collected at the end of the program. Parents also completed the Child/Adult Behaviour Checklist (C/ABCL) and the Social Responsiveness Scale (SRS) before and after the intervention, which constituted the main outcome measures.

Results: Parents reported high levels of feasibility and satisfaction with the program. Four domains were rated as improved by the majority of the parents: emotional awareness, general wellbeing/mood, reciprocal conversations, and recognizing/naming one's emotions. In addition, we observed a significant improve on the SRS total score and two individual dimensions (social awareness and social motivation) following the intervention. No significant change on the C/ABCL was observed.

Conclusion: This study suggests that using online video-conferencing to bring social skills training groups to geographically dispersed patients with intellectual delay is feasible. Moreover, results from the satisfaction survey indicate that the SOSTA-22 digital version curriculum addresses topics that are a good fit with the needs of participants with 22q11DS. Parents also noted social skills improvement in their offspring following the intervention on several social abilities.



## S02-14: Treatment of eating and weight disorders: where do we stand and where are we going?

Prof. Johannes Hebebrand

Despite the high prevalence of eating and weight disorders, and the availability of evidence-based treatments for adults, available therapeutic strategies for these disorders lack a good evidence-base in children and adolescents. Moreover, despite the importance of targeting weight in eating disorder treatment, the two fields have traditionally not relied on cross-fertilization. This symposium will focus on novel approaches and treatment evidence that cut across eating and weight disorders. New considerations on the importance of weight (across its spectrum from high to low) in eating disorders and development of new treatment approaches that target both eating and weight disorders will be presented. Speakers will present novel empirical findings and will discuss treatment implications.

Dr Haas will conduct an international comparison of clinical trials of anorexia nervosa, with a focus on the role of body weight at baseline, end of treatment and follow-up. Dr Muhlig will present evidence on the effect of weight loss programs for children and adolescents with obesity and focus on the implications of the small effect sizes. Dr Haycraft will discuss her research on childhood feeding problems and present the development of a digital resource to help parents target problematic feeding and eating behaviours. Dr Lindvall Dahlgren will present data on the use of cognitive remediation therapy in eating and weight disorders.

This symposium will provide new knowledge and understanding of treatment approaches that cut across eating and weight disorders; and that target weight. As such this symposium will be suitable for both clinicians and researchers in the field of eating, weight disorders as well as other fields.



2695 - International comparison of clinical trials based on patients with anorexia nervosa with a major focus on body weight at baseline, end of study and follow-up

Dr. Verena Haas

Background: A considerable number of clinical trials on patients with anorexia nervosa (AN) provide longitudinal data on body weight related outcome for different countries. Despite obvious differences in study design and national health services, we aimed at systematically comparing data at baseline, end of study, and follow up.

Methods: We carried out a PubMed search using the key words "anorexia nervosa" and "follow-up", while additionally filtering for selected clinical trials on humans within the past 5 years and articles in English. We analyzed baseline, end of study, and follow-up body weight related data for a maximum of 2 years after admission.

Results: Our search retrieved 42 results. When comparing these studies, we noted large differences in admission weight, length of inpatient/outpatient treatment, and applied treatment elements. In studies conducted in English speaking countries, AN was largely treated on an outpatient basis, with short intermittent inpatient admissions for medical stabilization. In European countries, patients tend to be treated for a longer time as inpatients. The fact that weight related outcome measures were not uniformly reported as body mass index (BMI; kg/m²) significantly hampered our comparison.

Discussion: Because of the detected international divergence systematic comparisons of treatment strategies and settings appear promising with respect to identification of treatment strategies potentially entailing more favorable outcomes. However, to enable valid international comparisons of treatment outcome in AN, a consensus is required for a basic data set to be reported in all clinical trials.



2696 - Small effect sizes in conservative weight loss programs — implications for treatment of obesity in childhood and adolescence

Dr. Yvonne Mühlig

Background: Prevalence rates for (extreme) obesity in children and adolescents stagnate on a high level. Conservative weight loss programs have shown to be effective, yet the overall effect size concerning weight status is small. At present, there is no stringent treatment rational — focusing also on the elevated risk of somatic and psychiatric co-morbidities — for patients who were not able to reach substantial weight loss in conservative weight loss programs. Methods: Data from systematic reviews and meta-analyses on obesity treatment for children and adolescents and from clinical trials involving adolescents with extreme obesity are highlighted. Methodologically, we focus on weight loss, attendance rate and loss to follow-up to evaluate the interventions.

Results: In our systematic review, 48 randomized controlled trials with a total of 5025 participants were assessed. With regard to studies fulfilling predefined methodological quality criteria, weight losses between 0.05 and 0.42 BMI z-score within 24 months after starting conservative treatment were reported. Dropout rates (data available in 41 studies) were 10% or higher in 27 studies (66%) and 25% or higher in 9 studies (22%). Similarly, in our recent randomized controlled trial involving 119 adolescents and young adults with (extreme) obesity, the attendance rate of a low-level intervention with six sessions was 23%.

Conclusion: Based on the limited effect of conservative treatment on weight status and the problem of adherence, alternative treatment approaches warrant future research. These include psychological interventions with the aim of coping with obesity and its associated impairments, but also bariatric surgery for eligible adolescents with extreme obesity.



## 2697 - Selective/fussy eating in children: Development of a digital resource to support caregivers and health professionals

Emma Haycraft

Objective: To address the lack of support available for caregivers and health professionals regarding children's fussy/selective eating behaviours by developing an evidence-based, credible and accessible support resource to promote healthy eating habits in young children and healthy feeding practices in caregivers. Eating behaviours established early in life tend to remain throughout childhood and into adulthood, so ensuring that children develop healthy eating behaviours from their earliest years is vital.

Method: Following a review of the literature and consultation with caregivers, the Child Feeding Guide was developed. The Child Feeding Guide is a website and free mobile app which offers information, advice and tools to help caregivers manage fussy or unhealthy eating behaviours. A digital format was used to ensure the Child Feeding Guide is accessible and that a diverse range of caregivers and professionals can benefit from it. Health professionals and caregivers with young children were asked to use the Child Feeding Guide and provide feedback on its usability, content, appearance and novelty.

Results: Over 85% of health professionals agreed that the Child Feeding Guide contains useful information, is a beneficial resource, and is easy to use. 95% would recommend it to the families that they work with. 80% of caregivers reported that using it helped them to better understand their children's eating behaviour. Caregivers commented that using the Child Feeding Guide had made them aware of how their feeding behaviours can inadvertently impact their child's eating behaviours. Other features of the Child Feeding Guide were identified as beneficial, such as: the provision of advice alongside practical and realistic methods for improving mealtimes; tips for not using food for rewards or for comfort; information on common feeding pitfalls. Caregivers also reported finding the Child Feeding Guide novel, interesting and educational, and easy to use. Health professionals found it a valuable tool which complements existing resources.

Conclusion: Initial user feedback suggests that the Child Feeding Guide is filling a critical gap in available support resources. Caregivers and health professionals report that it is easy to use, helpful and accessible, and that it is helping to promote healthy child eating behaviours and reduce caregiver anxiety and concerns.



## 2698 - Cognitive remediation in feeding and eating disorders - A novel approach to treatment

Camilla Lindvall Dahlgren

In recent years, there has been a substantial increase in investigations of the impact of neuropsychology on eating disorder (ED) aetiology-, maintenance-, and recovery. Clinical neuropsychology is concerned with the applied science of brain-behavior relationships, and in eating disorders, the focus has been primarily to establish the extent to which weaknesses in cognitive flexibility and central coherence contribute to the development of the illness, its perseverance and the likelihood of recovery. Cognitive remediation therapy (CRT) is a novel intervention specifically tailored to remedy weaknesses in these two domains (i.e. cognitive flexibility and central coherence) through metacognitive techniques. The intervention focuses on the process of thinking (i.e. the how) rather than the content (i.e. the what), and in contrast to traditional interventions that center on increasing food intake and on addressing ED specific symptoms such as weight and shape concerns, CRT aims neither to address nor directly treat these. The focus is primarily to decrease rigidity (i.e. increase flexibility) and achieve a balance between local (detailed) and global (the bigger picture) information processing strategies. This presentation will describe the central elements of CRT for children and adolescents with feeding and eating disorders, and a synthesis of the extant literature on CRT for this patient group.



## S02-16: Outcomes of childhood experiences of abuse and neglect in adolescence and young adulthood

Dr. Marcel Aebi University Hospital of Psychiatry

Experiences of maltreatment display a burden to children and adolescents worldwide with prevalence rates of as high as 14-55% for physical abuse, 11-47% for emotional abuse, and 6-22% for sexual abuse. Children and adolescents vary in the nature of their responses to trauma and maltreatment. The reactions of individual youths may be influenced by their developmental level, ethnicity/cultural factors, previous trauma exposure, available resources, and preexisting child and family problems. However, the exposure to abuse and neglect was found associated with a host of negative outcomes in later adolescence and adulthood, such as suicide, depression, alcohol use, drug use, and physical consequences, such as autoimmune disorders. Furthermore, some seriously maltreated children and adolescents were found at risk for committing criminal offenses. Effective interventions are needed in order to prevent these negative outcomes. This symposium addresses the relation of different trauma types and possible negative outcomes in at risk populations (e.g. juvenile offenders) and illustrates how effective interventions can be implemented into clinical practice.



## 2904 - Implementation and evaluation of trauma-sensitive care in Swiss youth welfare and juvenile justice institutions

Dr. Marc Schmid

### Objectives:

For children and adolescents living in residential care, repeated interpersonal trauma is not the exception, but the norm, and over 80% of this population report at least one traumatic experience. Such past experiences of social learning influence pedagogic and therapeutic alliances, since the re-enactment of maladaptive experiences with relevant others may lead to violence against staff and placement discontinuity. There is a need to sensitize professionals for traumatic experiences and to improve their self-efficacy in the interaction with severely traumatized clients.

#### Method:

The management and staff of five youth welfare institutions received intensive training in trauma-sensitive care (16 days). In a naturalistic control group design these 5 model institutions (N=55 co-workers, 34 children and adolescents, 36% female) were compared with nine control institutions (n=105 co-workers, 51 children and adolescents 42% female) regarding burnout risk, stress and work satisfaction of the staff, as well as psychopathology and neurobiological stress of the placed children and adolescents.

#### Results:

The results show reduced hair cortisol concentrations (mg/pg) in staff and adolescents, as well as stronger reductions of psychopathology and an improvement in work satisfaction in the intervention group compared to the control group. The effect was stronger in younger than in older and more experienced staff members.

### Conclusion:

Trauma-sensitive care works well in different types of youth welfare institutions and helps to improve self-efficacy and work satisfaction in staff. More institutions should implement these concepts and staff should receive training in trauma-sensitive care. In combination with child and adolescent psychiatric liaison services providing tf-CBT and/ or EMDR, such concepts may lead to higher placement continuity and a broader dissemination and application of evidence-based trauma therapy in these high-risk populations.



## 2906 - Maltreatment and Criminal Persistence in Sexually Abusive Adolescents: Type and Timing Matter

Steffen Barra

Objectives. Maltreatment has been considered as a crucial factor in the etiology and maintenance of adolescent delinquency. However, its influence on continuous crime in juveniles who have shown sexually offending behaviors (JSOs) is unclear. We analyzed relations between maltreatment experiences and criminal persistence in JSOs accounting for the timing, the number, and specific patterns of their occurrence. Methods. We analyzed judicial and medical case files of 278 male JSOs (M = 14.64 years, SD = 1.58 years) for experiences of emotional abuse, physical abuse, sexual victimization, emotional neglect, and physical neglect. The overall occurrence was coded as well as time-dependent experiences at early childhood (ages 0-5), late childhood (ages 6-11), and adolescence (ages 12 and older). We used person-centered Latent Class Analysis (LCA) and Latent Transition Analysis (LTA) to extract particular subtypes of JSOs depending on their maltreatment profiles. Relations between maltreatment and (non-)sexual criminal persistence were examined using binary logistic regressions. Results. We found three subtypes with a) low maltreatment, b) severe maltreatment, and c) mainly neglectful experiences. The overall severe maltreatment-subtype and all time-dependent severe maltreatment-subtypes (at early childhood, late childhood, and adolescence) were associated with non-sexual criminal persistence. The overall neglectful-experience subtype was associated with non-sexual criminal persistence but also with sexual criminal persistence. Additional analyses indicated that more recent experiences of physical neglect and cumulative maltreatment were of particular importance in predicting non-sexual and sexual criminal persistence. Conclusion. Experiences of maltreatment, especially cumulated maltreatment and experiences with temporal proximity, represent influencing factors in criminal persistence of JSOs. Our results underscore the need to assess maltreatment and its timing in clinical and research settings in order to gain a comprehensive picture of an adolescent's path to continuous delinquency. Findings further highlight the potential advantage of provide family-based interventions to diminish criminal persistence in JSOs.



## 2907 - Mental health among youth with a history of child abuse and neglect: Results from the German CANMANAGE consortium

Prof. Dr. Lutz Goldbeck University of Ulm, Clinic for Child and Adolescent Psychiatry/Psychotherapy

Background. Child abuse and neglect (CAN) is a risk factor for the development of mental disorders. Untreated, disorders can sustain into adulthood. This study compares rates of mental disorders and investigates mental healthcare utilization among survivors of CAN.

Methods. At three German regions, 322 children and adolescents aged between 4 and 17 were

Methods. At three German regions, 322 children and adolescents aged between 4 and 17 were assessed for their history of CAN, present mental health state, and mental health care utilization via semi-structured interviews.

Results. Approximately two thirds of the participants (64.3 %) had at least one mental disorder according to diagnostic criteria of ICD-10. Posttraumatic stress disorders (25.2 %), conduct disorders (21.3%) and attention and hyperactivity disorders (16.2 %) were the most prevalent disorders. Only one of five youth (19.9%) among those with a current disorder were using mental healthcare at the time of the assessment.

Discussion. Mental healthcare for survivors of CAN is insufficient. To improve access to appropriate services for this vulnerable population, close cooperation between mental healthcare providers and the child welfare system is essential. Efforts are needed to improve the dissemination and implementation of evidence-based interventions for high-risk youth.

Acknowledgement: Funded by the German Ministry of Education and Research (01KR1202A)



## 2910 - Trauma profiles of juvenile male offenders and their associations with mental health and criminal reoffending

Jenny Aellen

Objectives: Traumatic experiences in childhood are a major risk factor for juvenile delinquency. The present study aimed at examining patterns of individual trauma profiles of detained and non-detained juvenile offenders in Austria and Switzerland and analysing their associations with the presence of psychiatric disorders and criminal reoffending.

Methods: Separate latent class analyses (LCA) based on items of the Child Trauma Questionnaire (CTQ) assessing childhood emotional, physical, and sexual abuse were performed in a sample of 266 detained male adolescents (M=16.5, SD=1.29) and in a sample of 159 non-detained adolescent offenders (M=16.5, SD=1.76). Psychiatric disorders and mental health problems were assessed with the Mini-International Neuropsychiatric Interview for Children and Adolescents (MINI-KID) and the Youth Self Report (YSR). Reoffending data was collected from official registers. Linear and logistic regressions were used to assess associations between trauma subtypes, psychiatric disorders and reoffending. In addition, a mediated regression was used to examine the mediation effect of psychiatric disorders.

Results: In the sample of detained juvenile offenders, the LCA suggested one subtype with no or mild trauma and two subtypes with multiple traumatic experiences. Groups with multiple traumas in childhood showed higher prevalence of psychiatric disorders and reoffending compared to the no/mild trauma group. Further analyses based on the non-detained sample are outstanding and will be presented at the congress.

Conclusion: Traumatic experiences and trauma subtypes in juvenile offenders influence the development of psychiatric disorders and the risk of reoffending. It seems important to assess childhood trauma comprehensively in forensic and clinical practice in order to prevent psychiatric disorders in juvenile justice involved youth and to protect society from further criminal offenses.



#### S03-01: Parental influences on offspring mental health

Paul Ramchandani

Parental characteristics are known to predict offspring emotional and behavioral difficulties from an early age onwards. However, determinants of parental mental health and the specific ways in which parental well-being can play a role are not yet fully understood. This symposium will present data from several countries showing that parental characteristics need to be taken into account when addressing children's mental health needs. First, data from the EDEN cohort in France will show that maternal mental health varies with family circumstances and that both characteristics influence children's emotional and behavioral symptoms over the long-term. A study conducted using data from the same mother-child cohort will show the role of maternal characteristics in pregnancy in predicting children's long-term behavior. Next, two studies conducted in the UK and in the Netherlands will show the importance of paternal mental health symptoms of anxiety and antisocial behavior - with regard to offspring well-being, whether considered alone or in combination with maternal mental health. Finally, a study from Sweden will show the interplay between parent and offspring mental health among young people transitioning to young adulthood. Overall, the research presented in this symposium will show the importance of a lifecourse and family-wide perspective when investigating mental health difficulties in children and adolescents.



2863 - Family structure and maternal depression over time and child emotional and behavioral problems: cross-lagged analyses in the French EDEN cohort study.

Judith van der Waerden

Objectives: From pregnancy through infancy and childhood, the family environment as well as maternal mental health matter for the long- and short-term healthy development of the child. The relationship between both these factors may be bidirectional, with depression having an impact on family structure and vice versa. The present study aims to examine the longitudinal interrelationship between maternal depression and family structure and the unique contribution of maternal depression and family structure to levels of child emotional and behavioral difficulties in middle childhood.

Methods: Data from 1903 French women participating in the EDEN mother-child cohort were analyzed using a cross-lagged panel approach with five waves of data on maternal depression and family structure from pregnancy onwards, while controlling for possible common antecedents. Children's emotional and behavioral problems at age eight were assessed using the Strengths and Difficulties Questionnaire.

Results: We found significant associations between family structure and subsequent maternal depression, but only in the first three years after birth. On the other hand, we did not find evidence that maternal depression predicts subsequent family structure. Both maternal depression and family structure are associated with children's increased emotional and behavioral problems at eight years, with the effects for maternal depression being almost twice as strong. We further found significant gender differences for these associations, with the impact of maternal depression on child behavior problems being stronger for girls than for boys. The effect of family structure was not significantly different between both genders.

Conclusions: Overall, our findings support the social causation hypothesis of family structure on the probability of maternal depression, particularly in the first years after birth. We also found evidence for the unique contributions of maternal depression and family structure to levels of child behavior at age 8.



### 2864 - Prenatal and early postnatal nutrition and later children's hyperactivity-inattention symptoms: The EDEN mother-child study.

#### Cédric Galéra

#### Background

Prenatal and early postnatal nutrition are likely to influence later child mental health. To date human epidemiological research in this area is insufficiently documented.

#### Objective

To assess the effect of nutrition during pregnancy and the first years of the child's life (until year 2) on hyperactivity-inattention symptoms of children during 3 to 8 years.

#### Methods

Multivariable modeling was conducted using data of 1242 mother-child pairs from a population-based birth cohort in France followed from pregnancy to age 8 years of the children. Measures included estimates of maternal nutrition during pregnancy, children's early nutrition, children's trajectories of hyperactivity-inattention symptoms and individual and family characteristics. Results

Multivariable modeling showed significant relationships between low level of healthy prenatal nutrition and high trajectories of hyperactivity-inattention. They also showed a link between high levels of unhealthy prenatal and postnatal nutrition and high trajectories of hyperactivity-inattention. The associations took into acount relevant confounders such as maternal stress and depression, and socio-economic variables.

#### Conclusions

The results confirms the existence of significant associations between prenatal and early postnatal nutrition and children's hyperactivity-inattention symptoms. Early prevention should specifically target nutrition aspects of lifestyle.



### 2865 - Paternal Anxiety and Depression in the postnatal period and early child development

Prof. Paul Ramchandani

#### **OBJECTIVE:**

Depression in both women and men in the perinatal period has been found to be associated with an increased risk of adverse outcomes for children. It has been suggested that paternal anxiety may have a specific and different effect on children's development, but this has been little studied, particularly early in children's lives. The aim of this study was to examine the association between paternal postnatal anxiety and child behaviour in a longitudinal cohort study.

#### **METHODS:**

The sample included 192 families who were assessed in the family home when the child was aged 3 months old, and again at 2 years. Parental Depression and Anxiety were assessed using a structured clinical interview (SCID-II) at the 3 month assessment. Child behaviour was assessed with the Child Behaviour Checklist (completed separately by both mother and father). Regression analyses were conducted to test for associations between paternal depression and anxiety and subsequent child psychopathology.

#### **RESULTS:**

Paternal anxiety was associated with an increased risk of subsequent internalising (Beta 0.18; p=0.037) and externalising (Beta 0.19; p=0.020) behavioural problems in children, controlling for paternal age and education and maternal anxiety. Paternal depression was associated with internalising problems (Beta 0.23; p=0.010), but not externalising problems (Beta 0.10; p=0.248). The strongest effects for paternal anxiety were seen on girls externalising problems.

#### **CONCLUSIONS:**

Paternal anxiety in the postnatal period appears to exert an independent increased risk for the development of internalising and externalising problems in young children, aged 2 years. Paternal anxiety is seldom considered in models of the development of child psychopathology. This oversight could be remedied, and offer an opportunity for early preventive intervention.



2866 - Negative interaction between paternal antisocial behaviour and maternal postpartum depressive symptoms on early childhood aggressive behaviour: a consistent finding in two different international cohorts

Mijke Lambregtse-van den Berg

Early childhood aggressive behaviour is a predictor of future violence. Therefore, identifying risk factors for child aggressive behaviour is important in understanding underlying mechanisms. Maternal postpartum depression is a known risk factor. However, little research has focused on the influence of paternal behaviour on early childhood aggression and its interaction with maternal postpartum depression.

This study was performed in two cohorts: the Fathers Project, in the United Kingdom (n= 143) and the Generation R Study, in The Netherlands (n= 549). In both cohorts, paternal antisocial personality (ASP) traits and maternal postpartum depressive (PPD) symptoms were related to childhood aggressive behaviour at age two (Fathers Project) and age three (Generation R Study). We additionally tested whether paternal ASP increased the association between maternal PPD and early childhood aggression.

The association between paternal ASP and early childhood aggressive behaviour, corrected for maternal PPD, was similar in magnitude between the cohorts (Fathers Project: standardized  $\beta$ = 0.12, p= 0.146; Generation R:  $\beta$ = 0.14, p= 0.001). Strikingly, in both studies there was a significant negative interaction between paternal ASP and maternal PPD on childhood aggressive behaviour (Fathers Project:  $\beta$ = -0.20, p= 0.020; Generation R:  $\beta$ = -0.09, p= 0.043) meaning that with higher paternal ASP the association between maternal PPD and childhood aggressive behaviour was less. Although this negative interaction effect was unexpected, the consistency of the findings suggests that future studies and interventions that focus on early childhood aggressive behaviour should pay careful attention to both maternal and paternal psychopathology and their interaction.



### 2867 - Well-being of parents' caring for young adults with mental illness transitioning to adulthood

Eva Lindgren

Objectives: When young adults with mental illness become of age they have to be transferred to adult psychiatry if they need continued psychiatric care. This transfer is more than a change of caring units, as they undergo multiple transitions during this period in life. Transitioning to adulthood can be a critically period and as the young adults are considered adults they need to take responsibility for their matter of health and make decisions about care and treatment, even though they may not be mature to make such decisions. A prolonged transition to adulthood may further put demands on parents to continue providing support even though the young adult already reached the age of majority. The aim of my studies was to explore young adults' transitions within psychiatric care from the perspective of young adults and relatives. Method: To reach the aim individual interviews were conducted with young adults aged 18-26 years and parents to young adults with mental illness. The method for data selection and analysis was Grounded Theory.

Result: The analysis resulted in a grounded theory explaining that support and intrinsic motivation are prerequisites for young adults' transition and recovery. Intrinsic motivation was created by trustful caring relationships and a supportive care environment. Furthermore, the young adults were dependent on support from their parents to manage transition. Without those conditions the risk for dropping out of care increased. From the parents' perspective, the prolonged responsibility of parenting had impact of their well-being, as it implied a round-a-clock caring for their children. The parents needed support for their own sake to manage life. With an inclusive attitude from the professionals and a possibility to participate in care, the parents could find relief from their inescapable duties of parenting.

Conclusion: To facilitate young adults' transitions, transition planning should be carried out in cooperation with the caring units and the family. To reduce the risk of "falling into the caring gap", individual assessment of the young adult's intrinsic motivation to receive care and level of support from parents should be considered. Professionals need to offer parents support, otherwise, there is a risk of young adults dropping out of care as they need support from their parents to manage transition to adulthood and recovery.



### S03-02: Transition Issues in the Psychiatric Care of Deaf and Hard of Hearing Adolescents

Dr. Karen Goldberg University of South Florida

Objectives: Deaf adolescents suffer with many of the same psychiatric illnesses as their hearing counterparts. However, throughout the United States and Europe, access to mental health care is often limited by problems with language and cultural barriers. The objective of this symposium is to educate physicians about evidence based treatment interventions to meet the unique health care needs of their psychiatrically ill deaf patients in a manner that helps them transition successfully to young adulthood.

Methods: This presentation aims to present a discussion of the unique challenges in meeting the mental health needs of deaf youth. The symposium consists of five psychiatric specialists from three countries (US, Spain and the Netherlands) with expertise in treating Deaf adolescents and adults. The speakers will take the participants step by step through the psychiatric assessment and treatment of deaf youth with the aim of helping them to transition successfully into healthy young adults.

Results: At the conclusion of the presentation, participants will have a better understanding of the barriers to access to care and the challenges facing deaf patients. Participants will understand the importance of language and cultural considerations in treating deaf individuals. Participants will learn how to successfully help their deaf adolescent patients transition to adults.

Conclusions: Psychiatrists from the United States and Europe attending this presentation will be in a better position to provide optimal psychiatric services to deaf and hard of hearing youth as they transition from adolescence to young adulthood.



#### 3169 - Introduction to Working with Deaf Youth

Dr. Karen Goldberg University of South Florida

Objectives: The purpose of the first segment of this symposium is to educate the attendee on the unique challenges facing deaf youth and their families in seeking psychiatric evaluation and treatment. Often access to mental health care is limited by problems with language and cultural barriers. The objective of this presentation is to lay the foundation for understanding how best to work with deaf patients.

Methods: This presentation aims to present a discussion of barriers to access to care and challenges in mental health service delivery for deaf patients throughout the United States and Europe. There will be discussion about the importance of language and cultural considerations in treating deaf individuals. There will be discussion of the role of the Americans with Disabilities Act, which ensures equal access to care for deaf patients as well as the National CLAS Standards further ensuring culturally and linguistically appropriate services.

Results: Participants will better understand the challenges facing deaf patients and their families in accessing mental health services. Participants will have increased awareness of the mental health needs of young patients with deafness and hearing loss. Participants will learn how to successfully help their deaf adolescent patients transition to adults. Participants will learn about evidenced based treatment models, nationally and internationally, developed to meet the needs of these patients in a culturally and linguistically sensitive manner.

Conclusions: Psychiatrists from the United States and Europe attending this presentation will be in a better position to provide optimal psychiatric services to deaf and hard of hearing youth as they transition from adolescence to young adulthood.



#### 3175 - Psychiatric Assessment of the Deaf Child and Teen

Dr. Jana Dreyzehner Tennessee School for the Deaf

Objectives: The purpose of this segment of this symposium is to educate the attendee on conducting a comprehensive psychiatric and developmental assessment of the deaf child. In assessing deaf children and adolescents, it is important to differentiate features of language deprivation due to deafness from that due to autism spectrum disorders. Language acquisition or lack of language impacts mental health and emotional functioning throughout childhood and has significant impacts on the development of the young person throughout life.

Methods: This presentation aims to outline evidenced based strategies to appropriately assess and treat developmental and psychiatric issues in young deaf patients. There will be discussion of early intervention services, hearing assessment and language acquisition skills as component of meeting the mental health needs of deaf youth. Current technological interventions will be discussed including cochlear implants and their role in oral language acquisition as well as ethical issues around their use.

Results: Participants will better understand the process of comprehensive psychiatric and developmental assessment of deaf youth. There will be better understanding of differentiating developmental challenges due to deafness as well as co-morbid autism spectrum.

Conclusions: Assessing deaf children and adolescents require skills in understanding how deafness and language impacts development and mental health. Participants will be able to understand how best to conduct a comprehensive psychiatric and developmental assessment of deaf youth, as well as understand appropriate services and interventions to maximize outcomes to help deaf youth transition to young adulthood.



#### 3176 - Deaf Adolescents and Identity Development

Dr. Nora Olazabal Basurto Hospital

Objectives: Identity development is a central task that all teenagers must carry out during adolescence in order to make a successful and healthy transition to adulthood. The development of a stable sense of self is as critical for deaf adolescents as it is for hearing youth. Having the capacity to build complex representations of themselves and others are important skills that are present in healthy adults.

Methods: The study of the deaf identity should include psychological and social components; such as how society shapes the way deaf individuals view themselves, how their families view deafness (as disability versus culture) and the degree of integration in their peer groups. Deaf culture can help deaf adolescents achieve a sense of identity, as individuals and members of group.

Results: Deaf Culture is linked with two main concepts: the belief that being deaf is not a disability but a cultural struggle, and the use of sign language as its main cultural development tool. Deaf culture is a common concept throughout the United States and Europe. Learning about Deaf culture will enable psychiatrists to provide psychiatric care in culturally and linguistically affirmative manner.

Conclusion: Psychiatrists from the United States and Europe will learn how deaf identity and culture impact the successful transition of deaf youth into healthy adults.



#### 3178 - Interventions to promote healthy deaf identity

Dr. Veronica Pousa Basurto Hospital

Objectives: The DSM 5 proposes a new dimensional model to assess personality disorders in four different domains: identity, self-direction, empathy, and intimacy. This model has clinical implications in helping psychiatrists understand the difficulties deaf individuals experience when developing their identity and sense of self in a hearing world.

Methods: The Deaf Identity Development Scale (Glickman, 1993) outlines the different stages of deaf identity development. It also identifies important situations that can influence the process of reaching an integrated competence for self-definition. The scale establishes four stages of deaf identity development: 1) Culturally hearing, 2) Marginal, 3) Immersion in deaf culture, and 4) Bicultural.

Results: Deaf Identity is an integral component to making a healthy transition to adulthood. Case presentations are used to better understand the technique of the Deaf Identity Development Scale and how it fits the DSM 5 Model of personality. Bicultural deaf adults are thought to be able to integrate both deaf and hearing cultures' values, thusly enriching their way of life.

Conclusion: Healthy sense of self-concept and identity is critical for successful transition to adulthood. Psychiatrists from the United States and Europe will learn how to assess deaf identity and personality development.



#### 3180 - Mental Health of Adult Deaf People, Advocacy and Services in Europe

Dr. Ines Sleeboom-van Raaij European Society for Mental Health and Deafness (President)

Objectives: Deaf adults face ongoing challenges in access to appropriate mental health services. Throughout the United States and Europe, there are growing trends in advocacy and outreach in order to help optimize mental health in deaf adults. The objective of this presentation is to educate physicians about services available in Europe including the European Society for Mental Health and Deafness.

Methods: This presentation aims to present a discussion of the influence of growing up as a deaf child in a predominantly hearing world and how that impacts deaf adults. Discussion will be on how to best maximize mental health services to deaf adults to enhance independence. European Society for Mental Health and Deafness is a coalition of mental health providers throughout Europe committed to optimal service delivery.

Results: Many factors impact optimal mental health of deaf adults, but integral among them is the adequate access to appropriate services to meet their needs. Specialized services are available to help psychiatrists treat their deaf patients. The diagnosis and treatment of mental health issues in this group of people requires special skills in communication and knowledge and appreciation of the importance of language, medical psychosocial and cultural issues throughout adulthood.

Conclusions: Psychiatrists from the United States and Europe attending this presentation will have a better understanding of the needs of deaf adults with mental illness as well as how to access additional services and technology for optimal care of their patients.



#### **S03-03:** From one language to another

Professor Bernard Golse Hopital Necker

The ELAL Avicenne is the first french transcultural for the evaluation of mother tongue in migrant children

This symposium is meant to decribe the validation of the tool and in which way it can be useful for professionnals, chldren and parents

This symposium is on behalf of AEPEA



### 3498 - The Avicenne ELAL©: A transcultural evaluation tool for mother tongues in migrant's children

Dalila Rezzoug HOPITAL AVICENNE

There is a wide variety of bilingualism among the children of migrants. Numerous factors contribute to the establishment of this dual skill in migratory settings. The native or first languages are often minority languages, and transmission processes can vary from one family to another, and among siblings in a given family. As a result, assessing language acquisitions among the children of migrants is complex, and needs to take account of the specific features of bilingual development as well as the cultural background.

In France we do not have any tool enabling the assessment of linguistic abilities handed down in families where the native (or first) language is not French, and this lack of an appropriate tool can lead to diagnostic errors among bilingual children.

This communication describes the validation of the Avicenne ELAL, a transcultural evaluation tool for first languages intended for children aged between three and a half and six and a half. The validation population in France was made up of 145 children speaking Arabic (Maghreb), Tamil (Sri-Lanka) and Soninke (West Africa). A group of 99 children were recruited in countries where these languages of interest are used by the majority (Mauritania, Algeria, Sri-Lanka and Morocco). In this group the children spoke one of the three study languages. For the bilingual population recruited in France, the protocol comprised a bilingual evaluation and an interview with the parents on the subject of practices and representations concerning the transmission of language. In the other group the first language was assessed using the Avicenne ELAL.

The results showed that this instrument had satisfactory psychometric and clinical properties. The analysis of the protocols as applied in the different cultural and linguistic settings shows that is has good transcultural validity. The use of the tool for the assessment of bilingualism enables a bilingual profile to be derived. We distinguished four profiles: harmonious coexistence of the two languages, lack of harmonious coexistence in favour of the first language or in favour of the second language, and linguistic vulnerability. We discuss these different profiles and the preventive, therapeutic and pedagogical interventions that they suggest.



#### 3499 - The Avicenne ELAL©: assessment of the cultural riches

**Doctor AMALINI SIMON** 

The Avicenne ELAL was created in order to take into account the assessment in the mothertongue of children that unfortunately we don't do enough, omitting the skills of children in their first language. The ELAL is a language assessment programme. But indeed, through the language we have access to many other cultural elements. The language is part of culture, and it is impregnated by it. By transmitting their language, parents transmit their history, their culture and more than words they transmit their affects. Thus, it is important to take into account in our assessment the language course that is languages of the family. If we work with the family we can have access to their history.

When we created the Avicenne ELAL we try to ensure that it can be used in all languages. We had to find words, images and situations that can be easily recognized in the mothertongue of children whatever it is. Thus in cross-cultural validation of the tool to Morocco, Mauritania, Sri Lanka... we were surprised to see how culture was present in the language of children. We find in the words, the way children talk traces from the historical, social, cultural of the country. From the validation in France we also found sometimes traces of the migratory trip. Based on the analysis of cross-cultural validation of the ELAL and our work at Avicenne we will show how it is important to take into account the cultural context in the language assessment. So at the Avicenne hospital we have created a group called bilingual group where we work around the transition from one language to another from one world to other. Each child speaks different language than french and also therapists, so we value the languages, cultures, and this allows the child to feel better in his language so that it can be appeased to learn other language as french. The group is a field for experiencing co-existence of languages, all the languages are recognized as valuables.

When we evaluate the language of a child, it is important to take into account his skills in his first

language and to understand in which context he grows up, it is therefore important to work with the family.



### 3500 - Elald'Avicenne, a new language assessment tool for a new clinical and diagnostic work

Coralie Sanson

One of the speech therapist activities, among many others, is the children spoken language assessment. This kind of assessment is more and more often provided in bilingual and multicultural backgrounds. At the Avicenne hospital, we have created a new tool designed especially for this kind of assessments. This tool, l'Elal d'Avicenne ©, is a quantitative and qualitative test for the evaluation of linguistics skills in the subject's native language. The clinician's work will rely upon the child's oral expression, in his or her native language. Therefore, the assessment quality will depend on the oral expression analysis made by the team translator/clinician. The presence of a third professional in the oral expression assessment setting will drastically change this setting, and these modifications will be the source of a new way to practice this kind of clinical acts with children. The translator plays here an essential role in the assessment, for he or she is the linguistic expert who will be able to detect and describe the linguistic structure used by the child during his or her oral expression. The clinician seeks to highlight the skills as well as the alterations and difficulties, which the children may present during their oral expression assessment in their native language. In the transcultural clinical field, The Elal d'Avicenne is a good example of the teamwork translator/clinician efficiency, to illustrate the bond between two languages, between two cultural worlds. In this symposium, we suggest to present the assessment protocol for oral expression in native language with children between five and six years old. The age range we've chosen is the one we used to validate the Elal d'Avicenne. We consequently will describe an oral expression assessment session, including the teamwork with the translator, and we ultimately wish to lead you toward a more complex and subtle way of evaluating the children oral expression and understanding abilities, when these children are growing up in a multicultural and multilinguistic background.



### 3502 - What languages do you speak? How ELAL d'Avicenne, a new transcultural tool can help child psychiatrist with children of migrants?

Doctor Stephane Di Meo

Bilingualism is the language standard in many countries. Yet many childcare professionals feel this as an additional complexity for the assessment and care of children of migrant. ELAL d'Avicenne is a new validated language test to evaluate mother tongues. This transcultural tool was built after 15 years of reflection by clinicians working with children of migrants in a child and adolescent psychiatry department near Paris (France). ELAL d'Avicenne guides the practitioner in the diagnostic work-up when a child has a language disorder. With clinical examples, we will see how, it is easier to distinguish the typical bilingual language development of a language disorder using this test. There are different bilingualism and the mother tongues of the children of migrants often have a devalued status in relation to the language of the host country. Apart from identifying language impairments, this test also makes it possible to highlight the competences in mother tongue that are even unsuspected by parents, helping to modify the representations and thus to restart transgenerational transmission. It has a mediating role between parents and clinicians to explore language and migratory paths. It can help children to free themselves from these linguistic conflicts. Thus, they will be able to develop their bilinguality in a fulfilled way and to benefit from the advantages inherent to bilingualism.



S03-04: Transitions in perinatal and preterm infant mental health: the importance of early recognition and intervention

Professor Fiona McNicholas Our Lady's Children's Hospital, Crumlin

There have been significant advances in the antenatal and neonatal care of preterm infants with increased survival of the most vulnerable extremely low birth weight infants. Preterm birth remains however a leading cause of morbidity and children born extremely preterm are at increased risk of significant disability and neurodevelopmental disorders. Increasingly the recognition of significant psychiatric and more subtle yet impairing social-emotional difficulties has been the focus of longitudinal studies. So too has the impact of preterm birth on parental mental health. Despite significant advances in neonatal intensive care practices, mental health and psychosocial supports for preterm infants and their parents can be lacking both in terms of early interventions and long term follow-up. This symposium discusses the results of two studies which explore the long term outcomes in terms of mental health and attachment of preterm infants in Ireland, an evaluation of an early intervention using video interaction guidance to support parents of preterm infants and the perceptions of NICU staff regarding attachment and social-emotional needs of preterm infants.



### 3521 - Medical, cognitive and mental health outcomes of Very Low Birth Weight Infants at Age 10-14 years in Ireland

Professor Fiona McNicholas Our Lady's Children's Hospital, Crumlin

Low birth weight (LBW) is a leading cause of infant mortality and morbidity, and a specific risk for the development of neuro-developmental and academic problems. To examine the medical, cognitive and mental health outcomes of VLBW (<1,500g) children, born in one maternity hospital in Dublin between 1995 and 1997 with a matched control group.

Methods: The study employed a prospective/cohort design, with semi-structured, and standardised measures, along with the completion of a study specific questionnaire. Ratings were obtained from parents, teachers and youth.

Results: Of the 127 surviving VLBW cohort, 64 (50%) consented to assessment at a mean age of 11.6 years (SD 1.0) along with a matched weight and gender control sample of 51. VLBW children had an increased risk of chronic medical problems and neuro-sensory deficits but without any increased use in services. Similarly, they had lower (mean 89.7 compared to NBW 101.3, p<0.001) and more were identified by teachers to have special education needs (33% VLBW versus 7% NBW, p<0.005). With regard to academic attainments, birth weight had a significant (t(98) = -4.54, p< .001) and robust effect (eta squared = .17) on mathematical attainment scores. Those with lower SES fared least well off. More VLBW children received clinical or borderline scores on the SDQ when rated by parent ((1, N=114) = 7.3, p=.007) or youth ((1, N=114) = 4.83, p=.028), but not by teachers ((1, N=114) = 1.243, p=.463). There was no increase use of MH services. A main effect for birth weight on parent SDQ (F (1, 88) = 5.07, p<.05), remained after controlling for IQ and SES, but only on hyperactivity in males. Socio-economic status, rather than IQ or birth weight, predicted identification of problems by teachers (F (1, 82) = 6.99, p=.01).

Conclusions: There is a recognised increased risk of subsequent disability and psychopathology especially with decreasing gestational age, and when coupled with low SES. Teachers are missing MH difficulties and influenced more by SES than IQ or birth weight. Having facilitated the survival of vulnerable infants, services must be available for the necessary on-going medical, educational and mental health support and treatment that they require throughout adolescent years. Initial perinatal investment needs to be matched with ongoing surveillance and psychoeducation to ensure that disorders are recognised early and offered appropriate interventions.



### 3522 - Attachment and social-emotional development of children born preterm

Dr Astrid Jules Zack Dept.of Psychology, Queens University

Children born very preterm are at increased risk for learning difficulties and mental health problems, often presenting at early school age. These have been attributed to neurological insults and often persist into adolescence and adulthood. However increasing interest in the impact of early relationship experiences on the development of preterm infants, and how these may influence individual infant outcomes Methods: A retrospective matched case-control study of preterm (<30 weeks gestational age) and full-term born children at ages 5/6 was conducted in a level III NICU. Attachment narratives were assessed with the Manchester Child Attachment Story Task. Secondary outcomes assessed were cognitive ability, emotional problems and maternal mental health. Results: 61 preterm born and 37 full-term born children participated in the study. Insecure and disorganised representations were more frequent among children born preterm with a significant difference between groups (p=0.001, p=0.03 respectively). Adjusting for children's cognitive ability, these differences became non-significant yet there remained a 4fold increase in risk of insecure attachment in preterm born children. Attachment insecurity and disorganisation was associated with emotional difficulties. 25.7% preterm children had documented IVH. Nine (90%) children with milder neurological injury had insecure representations, compared with 3 (50%) children with evidence of severe IVH and 23 (57%) children without any evidence of IVH who were classified as insecure. Maternal mental health was associated with child internalising problems in the children born preterm only. Conclusions: This study supports the link between children's attachment representations and concurrent emotional problems. For preterm born children, emotional problems are associated with attachment but only in part mediated by previous neurological injury. In this vulnerable very low birth weight sample a minority of the preterm children or their families had received consistent intervention or psycho-social support, a finding previously highlighted as a neglected area in Irish mental health provision to families of preterm born children.



3523 - Attachment focused intervention can support preterm infant socialemotional development: results of the Preterm Infant Parent Programme for Attachment (PIPPA) Study

Dr Aoife Twohig Our Lady's Children's Hospital, Crumlin

Introduction: Enhancing sensitivity during early parent-infant interaction is protective and associated with improved emotional regulation and mental health outcomes . Video Interaction Guidance (VIG) is a strengths based intervention where moments from a video of parent-infant interaction are chosen by the guider and the parent is then facilitated by the guider in observing and reflecting on the moments of interaction. VIG enhances sensitive responsiveness. The aim is to evaluate the effects of an early attachment focused intervention for parents of very preterm infants born < 32 weeks GA, in the NICU on maternal sensitivity and social-emotional development.

Methods: A randomised controlled trial in a level III NICU with preterm infants born <32 weeks' gestation and parents. PIPPA is a 3 session therapeutic intervention with reflective discussion, observation of infant cues and one video feedback session. Primary outcome: maternal sensitivity measured by the CARE-Index at 9 months CA. Secondary outcomes: infant social-emotional problems on the Ages and Stages Questionnaire – SE. Intention to treat and per protocol analysis of first twin is presented.

Results: Eighty mothers consented to take part in the study and randomly allocated to intervention and control groups. Mothers in the intervention group had attained a higher level of education than mothers in the control group (p<0.008), subsequent analyses were adjusted. Primary Outcome: There was no statistically significant difference between the intervention and control groups in maternal sensitivity or infant behaviour during playful interaction at 9 months CA. Secondary outcomes: There was a significant difference between intervention and control groups in self-regulation problems at 12 months of age (p=0.05). Per protocol analysis revealed that at twelve months corrected age, infants whose mothers had received the VIG session, had significantly fewer communication problems (p<0.002).

Discussion and Conclusions This brief attachment focused intervention using VIG with parents of preterm infants showed improved social-emotional outcomes at 1 year while no significant effect was found on maternal sensitivity, adjusting for maternal education. Integrating and evaluating interventions such as this in the NICU can enhance social-emotional and mental health outcomes of preterm infants.



3524 - NICU staff perceptions about attachment and social-emotional development of preterm infants, experience of training and the emotional impact of their work.

Dr Aoife Twohig Our Lady's Children's Hospital, Crumlin

Supporting parents and infants in this process of developing their relationships is an integral part of neonatal intensive care. However there is limited knowledge of NICU staff perceptions about this aspect of care.

Aims:To explore NICU staff perceptions about attachment and social-emotional needs of preterm infants, prior training and the emotional impact of their work.

Methods: A cross-sectional survey of staff perceptions regarding the developing parent-infant relationship was conducted in a level III NICU after pilot testing, revision and ethical approval.Results: 57 (68%) of NICU staff responded to the survey. Parents' emotional experiences, of 'anxiety', 'shock', 'loss of control' and 'lack of competence as parents' were highly prevalent. Infant cues 'responding to parent's voice' and 'quieting-alerting' ranked most highly; 'crying' and 'physiological changes' ranked lowest. Infant medical risk, maternal emotional state and mental health are perceived to impact most on the relationship, compared to infant state, behaviour and SES. 53 (93%) respondents felt confident and 50 (87.8%) felt competent discussing parents' emotional experiences during the infants admission to the NICU. 54 (95%) responded that this is an integral part of their role; yet staff received little education in this area. Staff also perceived specific psychological support for parents was lacking during and after the infant's discharge. All staff surveyed perceived their work to be emotionally stressful; there were differences among NICU staff disciplines and with years' experience in the NICU, in terms of their perceptions about education in this area, the place of supervision for staff and in relation to opportunities to discuss the emotional impact of the work on staff. Conclusions

NICU staff perceive their role as integral to supporting the developing parent-infant relationship and preterm infant social-emotional development, however education in this area and provision of specific psychological support is lacking. Opportunities for staff to discuss and reflect on this aspect of their work should be developed and evaluated given the essential but emotionally challenging nature of their work with preterm babies and their parents.



### S03-05: Fostering the development of mentalization: assessments and interventions

Martin Debbané

Developmental psychology Research unit, Faculty of Psychology, University of Geneva, Switzerland

Mentalizing encompasses a suite of developmentally acquired psychological processes that critically assist through developmental transitions and help youths to envision themselves and others in terms of intentional mental states such as feelings, desires, wishes, goals, values, and attitudes.

In the past two decades, assessment of mentalizing processes and psychotherapy adaptations have been proposed for a number of different psychopathologies in adult forms of personality disorders. Only recently have evaluation and intervention procedures been adapted to children and adolescents.

The current symposium seeks to present the latest concepts and instruments in the evaluation of mentalizing, and further present the most recent developments in mentalization-based therapy for children. The symposium presents the key issues in assisting clinicians and researchers in reuniting the tools to foster the development of mentalization in clinical practice with youths.



### 3394 - Mentalization and dissociation in the context of trauma: Implications for child psychopathology

Karin Ensink

Dissociation is a common reaction subsequent to childhood sexual abuse (CSA) and has been identified as a risk factor for child psychopathology. There is also evidence that mentalization contributes to resilience in the context of abuse. However, at this stage little is known regarding the relationship between mentalization and dissociation, and their respective contributions to psychopathology. The aim of this study was to examine pathways from CSA to depressive symptoms, externalizing behaviour difficulties and sexualized behaviour through mentalization and dissociation. These pathways were examined in a sample of 168 mother-child dyads, including 74 dyads where children (aged 7–12) had histories of sexual abuse. Maternal mentalization was assessed using the Parent Development Interview-Revised and children's mentalization was assessed using the Child Reflective Functioning Scale. Children completed the Child Depression Inventory and parents completed the Child Dissociative Checklist, the Child Behavior Checklist and the Child Sexual Behavior Inventory. Direct and indirect paths from CSA to child psychopathology via children's mentalization and dissociation were examined using Mplus. Distinct paths from abuse to psychopathology were identified. Child mentalization partially mediated the relationship between CSA and depressive symptoms. The effects of CSA on externalizing symptoms and sexualized behaviour difficulties were sequentially mediated through mentalization and dissociation.



#### 3395 - Mentalization-Based Therapy for Children

Nick Midgley

Mentalization-based treatments have been shown to be effective with a range of clinical populations (Bateman & Fonagy, 2009), including adolescents who self-harm (Rossouw & Fonagy, 2012) and parents and at-risk infants (Slade et al., 2005). This paper presents a treatment model for children aged 5-12, Mentalization Based Therapy for Children (MBT-C; Midgley, Ensink, Lindquist, Malberg & Muller, in press). This time-limited treatment was developed to facilitate mentalizing in children and their parents and addresses child psychological difficulties commonly seen in clinical practice.

The paper sets out key features of the model, its foundation in empirical research on the development of mentalizing, attachment and the self emotional regulation, as well as the negative impact on this of early adversity. The role and limits of metalizing for self and affect regulation are elaborated. Parental work is offered in parallel, to help parents consider the psychological experience of the child rather than focus on behaviour. Key interventions with children and parents are described and illustrated with a case example. Some preliminary data on treatment effectiveness is discussed.



3400 - Towards a developmental model of the mentalization dimensions during adolescence : a selective review of behavioral and neuroscientific data

Deborah Badoud

Developmental psychology Research unit, Faculty of Psychology, University of Geneva, Switzerland

The aim of the present study was to summarize the main experimental data that illuminate typical and atypical evolution of mentalization facets during adolescence. Mentalization defines the multi-faceted mental process by which an individual implicitly and explicitly interprets the actions of herself and others as meaningful on the basis of intentional mental states, such as personal desires or beliefs. These capacities are intrinsically related to self-regulation and interpersonal functioning and might therefore be key to overcome adolescent developmental challenges. However, the developmental pattern of each mentalization dimension still needs to be better informed.

Given the lack of instruments that would enable to capture simultaneously and directly each facet of mentalization capacities, we reviewed the literature dedicated to a set of, so-called, "cousin constructs"; the latter have been shown to partially overlap with mentalization abilities and to represent reliable proxy measures. Precisely, we included behavioral and neuroscience studies that investigate 1) the concepts of theory of mind, empathy, emotion recognition aor self-related processes; 2) in an adolescent sample, compared to child and/or adult participants; 3) from the general or patient population.

The results of this selective review highlight differential developmental patterns according to the mentalization facet that is considered. Precisely, adolescents increase their capacity to read other's internal invisible states, while the interpretation of external features (e.g. facial emotion recognition) might be already acquired at this stage of life. Besides this specialization process, the mentalization capacities might be better integrated to the broad network of cognitive capacities, such as executive functioning. Finally, from a chronological vantage, the individual might first enlarge his capacity to mentalize other's mind, then his ability to understand one's own mental states.

To summarize, adolescence seems to be characterized by a double movement of specialization and integration that operates within specific mentalization dimensions.



#### 3402 - New developments in the assessment of mentalizing: Not there yet

Patrick Luyten Faculty of Psychology and Educational Sciences, University of Leuven

Objectives: Mentalizing or reflective functioning refers to the capacity to envision ourselves and others in terms of intentional mental states such as feelings, desires, wishes, goals, values, and attitudes. It is a fundamental capacity that underpins our ability to navigate what is essentially an interpersonal world. It is becoming increasingly clear that different forms of psychopathology are characterized by different impairments in mentalizing reflected in different mentalizing profiles. This talk reviews new developments in the assessment of mentalizing. Methods: A systematic review was conducted of new assessment approaches of mentalizing that

Methods: A systematic review was conducted of new assessment approaches of mentalizing that have been published over the past decade.

Results: More than 50 measures of mentalizing have been developed and validated over the past decade, ranging from self-report questionnaires to observational measures and experimental methods. A review of these measures demonstrates, on the one hand, that recent research has opened up many new possibilities for assessing mentalizing both in a research and clinical context. On the other hand, this literature also suffers from many limitations which hamper further research on delineating so-called mentalizing profiles purportedly associated with different types of psychopathology in both research and clinical practice.

Conclusions: The increasing popularity of the mentalizing concept is paralleled by increasing interest in the assessment of this construct for both research and clinical purposes. While the increasing interest in the assessment of this construct will benefit both research and clinical practice, major research efforts are needed to further validate these measures, particularly for clinical use.



S03-06: Operationalized Psychodynamic Diagnosis for Children and Adolescents (OPD-CA-2)

Prof. Dr. Klaus Schmeck UPK

Following the success of the Operationalized Psychodynamic Diagnosis for Adults (OPD-2), a multiaxial diagnostic and classification system based on psychodynamic principles has been adapted for children and adolescents by combining psychodynamic, developmental, and clinical psychiatric perspectives. In German speaking countries the OPD-KJ-2 manual has been widely used for assessing indications for therapy, treatment planning, and measuring change. For international use, OPD-KJ-2 has now been translated to English (OPD-CA-2) and Spanish (OPD-IJ-2).

In this symposium we will present empirical data on the use of this psychodynamic assessment instrument in research and clinical practice with a focus on the axes "structure" and "conflict". The studies demonstrated that the axes were reliable and clinically valid. Further, they illustrate how the new diagnostic tool of OPD-2\_CA can be used in treatment planning and evaluation .It allows for discriminating between in- and outpatient treatment, based on structural deficits, prevailing conflicts and treatment prerequisite of clinically disturbed children and adolescents. Information about structural deficits, based on the OPD-CA-2-QA, has proved to be most valuable in working with adolescents with personality disorders.



# 3416 - Changes in OPD-CA Axis Structure During Inpatient Psychodynamic Treatment of Adolescents Suffering from Comorbid Disorders of Conduct and Emotions

Prof Dr Annette Streeck-Fischer

Objective: In a randomized controlled clinical trial (RCT) we evaluated an inpatient psychodynamic treatment for adolescents suffering from mixed disorders of conduct and emotions. The sample consisted of severely impaired adolescents with remarkable deficits regarding psychic structure. The current study wanted to examine if the manualized treatment did not only reduce symptoms but also enhance the structural level of the patients. Methods: The axis structure of the Operationalized Psychodynamic Diagnostics in Childhood and Adolescence (OPD-CA-2) was used to assess the structural level of N=46 adolescent inpatients. To examine differences between the patients' structural level at the beginning and at the end of inpatient treatment we conducted a repeated measures ANOVA. Results: The overall score as well as the three subscores of the axis structure improved significantly during inpatient treatment. The corresponding effect sizes were large ( $\eta 2 = .29$  to .47). The inpatient psychodynamic treatment led to significant improvements regarding symptomatology as well as psychic structure.

Conclusion: The axis structure of the OPD-CA-2 seems to be a useful instrument to assess structural changes in adolescent patients. However, further studies with larger sample size and control group data should be conducted to confirm these results.



### 3418 - Going beyond diagnostic labels: The importance and clinical application of the Axis Conflict

Prof Dr Inge Seiffge-Krenke

Objective: Nosological classification via DSM 5 or ICD 10 of patients are important, but not sufficient for therapeutic work. In the OPD-CA-2, the axis "Conflicts" allows to assess 7 intrapsychic conflicts (such as self conflicts, identity conflicts, conflicts of closeness vs distance and loyality conflicts), which have been established, based on earlier empirical work with clinical groups, as prevailing conflict issues which hinder normative development. Coping with these overarching conflicts can be in an active and passive manner, relating to the main developmental fields of the child or adolescent such as school, family, peers, health. The studies presented shows the clinical validity of the conflict axis, its discriminative power for separating normative and clinical samples and the impact of therapeutic treatment in reducing the originally high conflict level to a normative one after treatment.

Methods: Reliability and validity of the seven overarching themes of the conflict axis has been determined in studies on N= 116 inpatients and outpatients of child and adolescent psychiatry. In a further study, differences in the mean values of the 7 conflict issues and the prevailing coping mode were assessed in N=80 clinical and healthy children and adolescents which have been matched by age, gender, and SES. Finally, in a study on N= 30 outpatients, effectiveness of psychotherapy in reducing the level of conflicts was assessed.

Results: Inter-rater-reliability in diverse clinical samples ranged from .67 to .82. Independent from diagnosis, a similar ranking of the importance of conflicts was found for both gender. Self conflicts were more prominent for inpatient children and adolescents, identity conflicts were more prevalent in children and adolescents who started outpatient therapy. After 50 hours of long-term treatment, a significant reduction in the mean level of conflicts was found, approching the level of the normative sample.

Conclusion: The conflict axis has been proven to be a reliable and valid diagnostic tool which goes beyond diagnostic labels and allow the design of treatment and the evaluation of the effectiveness of therapy. This is particularly important, as comorbidity is one of the most frequent diagnostic problems in designing treatments for children and adolescents.



### 3420 - Use of a self-rating questionnaire to assess OPD-CA-2 Structure in a child and adolescent psychiatric practice

Dr Ruth Weissensteiner

Objective: For the early detection of disturbed personality functioning in youths it is essential to provide assessment instruments that are easy to use and show good psychometric properties. Since 2016 OPD-CA-2-QA, a new self-rating questionnaire for use in adolescents, is available to assess the axis "Structure" of the Operationalized Psychodynamic Diagnosis for Children and Adolescents (OPD-CA-2) with the four sub-dimensions Identity, Self-Direction, Interpersonality and Attachment. The questionnaire has to be tested for its psychometric properties in different clinical and non-clinical settings.

Methods: The questionnaire OPD-CA-2-QA is part of the clinical routine of assessment in a child and adolescent psychiatric practice in Vienna and is used in combination with YSR and CBCL. Until May 2017 we will have collected a sample of 60 adolescents age 12-18y. with internalizing disorders, externalizing disorders or early starting personality disorders. The results of these patients are compared to a normative sample of 592 German adolescents that have been assessed in different school settings in 2016.

Results: In the school sample, reliabilty of OPD-CA-2-QA was very good with Cronbach's alpha of .91 (Identity), .93 (Self-Direction), .87 (Interpersonality) and .90 (Attachment). Preliminary results of the distinction between normative sample and patients showed good criterion related validity with effect sizes between 1.4 (Interpersonality) and 1.7 (Identity).

Conclusion: The questionnaire OPD-CA-2-QA seems to be a useful instrument to assess personality structure in young people.



# 2490 - Normative Development of the Child Behavior Checklist Dysregulation Profile from Childhood to Adolescence: Associations with Personality Pathology

Marike Deutz Utrecht University

Objectives: This study aimed to examine the normative developmental course of dysregulation from early childhood to adolescence and its relation to personality pathology. The Child Behavior Checklist - Dysregulation Profile (CBCL-DP) was used as a reliable and valid measure of emotional, behavioral and cognitive self-regulatory problems, i.e. dysregulation. CBCL-DP is known to predict personality pathology, but no research yet examined dysregulation from a dimensional perspective in relation to personality pathology and whether next to initial levels, the developmental course of dysregulation is predictive of personality pathology in late adolescence.

Methods: Cohort-sequential latent growth modeling from age 4 to age 17 in a population-based sample (N=668) was employed. The CBCL was filled out by mothers during 6 assessments over a 13-year period, covering ages 4-17. Dysregulation was modeled as an underlying latent variable of scores on the Anxious/Depressed, Attention Problems and Aggressive Behavior scales. Personality pathology was measured using the Dimensional Assessment of Personality Pathology – Short Form for Adolescents (DAPP-SF-A) in late adolescence.

Results: Dysregulation as measured with the CBCL – DP followed a nonlinear developmental course with an increase from age 4 to 11, a peak in early adolescence around age 11, and a decrease into late adolescence. The initial level of dysregulation in early childhood predicted a wide range of late adolescents' personality pathology dimensions concerned with the regulation of affect (e.g. affective instability), behavior (e.g. oppositionality), and cognition (e.g. cognitive distortion). In addition, slower initial increases combined with less pronounced declines of the DP, predicted submissiveness, self-harm, and identity problems.

Conclusion: Dysregulation peaked in early adolescence, underscoring the notion that early adolescence is a time of storm and stress, possibly resulting from a disjuncture between demands from the environment and suboptimal developed regulatory competence. Furthermore, the findings suggest that dysregulation as measured with the CBCL – DP is a broad developmental precursor of personality pathology in late adolescence. Personality pathology carries a considerable burden of disease, reflected in high societal costs and lower quality of life, and therefore it is deemed highly important to prevent youth's dysregulation problems from developing into enduring personality pathology.



S03-07: 22q11.2 deletion syndrome (22q11DS): overview of the behavioural phenotype and available clinical interventions

Prof. Doron Gothelf

22q11.2 deletion syndrome (22q11DS), also known as Velo-Cardio-Facial syndrome, is a common genetic disorder, occurring in at least 1:4000 live births. It is associated with a specific medical, cognitive, and clinical phenotype, although a high degree of heterogeneity is observed between patients. In particular, this condition is now recognized as one of the highest known risk factors for schizophrenia and is considered as a model for understanding the development of psychosis.

This symposium is aimed for clinicians or researchers who are not familiar with 22q11DS and who would like to improve their knowledge of this condition. The four speakers will perform a joint presentation covering recent findings regarding the following topics:

- frequent medical, cognitive, and clinical characteristics
- assessment of attenuated symptoms of psychosis in 22q11DS
- risk factors associated with transition to psychosis
- marital and vocational outcome
- pharmacological and psychosocial interventions



2269 - 22q11.2 deletion (velo-cardio-facial) syndrome: genetic and medical characteristics and prognostic factors for functioning in adulthood

Prof. Doron Gothelf

The Behavioral Neurogenetics Center, Edmond and Lily Safra Children's Hospital, Sheba Medical Center

The 22q11.2 deletion syndrome (22q11.2DS), also known as velo-cardio-facial and DiGeorge syndromes has been the focus of intensive research over the last 20 years. The syndrome is the most commonly known microdeletion syndrome, occurring in at least 1 to 4,000 live births. The 22q11.2DS has medical, cognitive and psychiatric manifestations. It is associated with 200 potential medical comorbidities including cleft and cardiovascular anomalies, hypocalcemia and immunological problems. The size of the deletion in chromosome 22q11.2 causing the syndrome is 3Mb in 90% of the cases and consists of about 50 genes. While one of the genes contributing to the cardiovascular anomalies (TBX1) has been identified, it is still not known which of the genes from the microdeletion region are involved in the neuropsychiatric phenotype of the syndrome. We will present findings from different research groups about genotypeneuropsychiatric phenotype associations in 22q11.2DS.

About 25% of individuals with 22q11.2DS marry and have children. We will review the factors associated with marriage in 22q11.2DS. Higher adaptive functioning (more than overall cognitive functioning) increases the likelihood of marriage whereas the presence of psychotic disorders reduces the likelihood of marriage in 22q11.2DS.



#### 2270 - Cognitive profile of patients with 22q11DS

PhD Maude Schneider University of Geneva

It is well known that patients with 22q11DS suffer from mild intellectual disability in approximately half of the cases, while all of them experience some degree of learning difficulties. However, it has been shown that not all cognitive functions are equally affected in patients diagnosed with this condition, and that a large variability also exists between individuals. In this talk, we will review recent findings in the field of cognition in 22q11DS and focus on the most relevant aspects of the cognitive phenotype.

First, we will review recent evidence regarding the evolution of intellectual functioning from childhood to adulthood in 22q11 and its association with the onset of psychosis. Secondly, we will focus on two key neuro-cognitive deficits in the context of the 22q11DS, namely visuo-spatial processing and executive function. Thirdly, we will discuss recent results on social cognitive deficits, including emotion recognition, theory of mind, and perspective taking. In the second part of the talk, we will focus on possible interventions to improve neuro-cognitive and social cognitive deficits in this population.



### 2271 - Assessment of psychotic symptoms and vocational outcome in patients with 22q11DS

Stephan Eliez University of Geneva

Patients diagnosed with 22q11DS are at increased risk of developing schizophrenia during adolescence and early adulthood. As it is the case in the general population, the presence of attenuated symptoms of psychosis are often present before the onset of a psychotic disorder and need to be carefully assessed. In this talk, we will focus on the phenomenology of psychotic symptoms in 22q11DS and illustrate our presentation with several videos of patients. First, we will review evidence regarding the prevalence, the phenomenology and the evolution over time of attenuated positive symptoms in 22q11DS. We will also briefly review the risk factors that were shown to trigger the emergence of these manifestations in 22q11DS. Secondly, we will also present recent findings on the prevalence and evolution of negative symptoms, as they are also an integral part of the clinical phenotype and were shown to strongly influence long-term outcome.

In the second part of the talk, we will present data on vocational outcome in adolescents and adults, as this represents one of the most important preoccupations from parents/caretakers of patients with 22q11DS.



# S03-07: 22q11.2 deletion syndrome (22q11DS): overview of the behavioural phenotype and available clinical interventions

2272 - 22q11DS and transition to psychosis: diagnosis and treatment

PhD Marco Armando Office Medico-Pedagogique

In the past 20 years, there has been an increasing interest in people presenting with potentially prodromal symptoms of psychosis, i.e. with a clinical high risk state. The 22q11.2 deletion syndrome (22q11DS) is characterized by high rates of psychotic symptoms and schizophrenia, making this condition a promising human model for studying risk factors for psychosis. Indeed, 23 to 45% of adolescents report transient psychotic experiences, up to 40% of affected adults are diagnosed with a psychotic disorder. Moreover, 22q11DS was found in 0.3 to 2.0% of patients with schizophrenia, with rates of up to 5.7% in patients with childhood-onset schizophrenia. Taken together, these findings indicate that 22q11DS is a highly relevant genetic risk factor for schizophrenia and the most promising human model for studying risk factors and states at risk for schizophrenia. In this talk, we will present the results of a longitudinal study aimed at investigating the rate of transition to psychosis and the predictive value of ultra high risk (UHR) in a sample of patients with 22q11DS. We will also provide information about possible treatment strategies aimed at reducing the rate of transition to psychosis in this specific, genetically driven, high risk for psychosis population.



### S03-08: Long-term clinical and non-clinical data inform ADHD treatment paradigms

Tobias Banaschewski

Presentation 1 Clinical outcomes from long-term trials of different medication classes Michael Huss

Presentation 2 Interpreting ADHD medication-induced changes in vital signs Vinay Bhole

Presentation 3 ADHD treatment beyond symptom control Nicoletta Adamo

Presentation 4
Delivering evidence-based, long-term ADHD care – The Dundee ADHD Clinical Care Pathway and beyond
David R Coghill



#### 2683 - Interpreting ADHD medication-induced changes in vital signs

Professor Michael Huss Johannes Gutenberg-University Mainz

#### Objective

Concerns have been expressed about the cardiovascular (CV) safety of attention-deficit/hyperactivity disorder (ADHD) medications. Here we review CV outcomes from clinical trials of ADHD medications of at least 1 year.

#### Methods

CV data were identified from open-label clinical trials of  $\geq 1$  year duration of medications used to treat ADHD in individuals of all ages. In addition, novel CV outcomes from 2-year open-label trials of the stimulant lisdexamfetamine dimesylate (LDX) and the adrenergic  $\alpha 2$  agonist guanfacine extended release (GXR) are reported.

#### Results

In long-term trials of methylphenidate and amphetamine stimulant medications in patients with ADHD of all ages, mean pulse rate, systolic blood pressure (SBP) and diastolic blood pressure (DBP) were moderately elevated.1 In a recently completed 2-year study of LDX in children and adolescents, after an initial increase, mean changes in pulse rate, SBP and DBP plateaued after 24−60 weeks. The proportions of participants meeting criteria pre-specified as potentially clinically important (PCI) ranged from 7.0 % for pulse rate ≥110 bpm (1.3% at >1 post-baseline visit) to 38.8% for DBP ≥80 mmHg in children (24.7% at >1 post-baseline visit). In long-term trials of the non-stimulant atomoxetine (ATX), mean pulse rate, SBP and DBP were also moderately elevated.2 Approximately 10% of participants in all ATX trials experienced sustained or progressive PCI changes in heart rate, SBP or DBP.2 In contrast to stimulants and ATX, a recently completed 2-year study of GXR in children and adolescents with ADHD found moderate initial decreases in mean pulse rate, SBP and DBP. For all parameters, the observed decreases occurred in the early phases of treatment and returned to baseline during (SBP, DBP) or after (pulse rate) treatment. During the course of the study, 13.2% and 6.6% of participants experienced PCI events of low or high pulse rate, respectively.

#### Conclusions

Trials of ADHD medications of at least 1 year have not revealed clinically meaningful changes from baseline in CV parameters at the group level. However, some participants did experience PCI changes, highlighting the need for CV monitoring, particularly in individuals with existing CV risk factors.

- 1. Hammerness PG et al. Expert Opin Drug Saf 2015;14:543-51
- 2. http://www.mhra.gov.uk/home/groups/s-par/documents/websiteresources/con152778.pdf

Supported by funding from Shire International GmbH



### 2682 - Clinical outcomes from long-term trials of different ADHD medication classes

Professor Michael Huss Johannes Gutenberg-University Mainz

#### **Objectives**

To evaluate published and novel safety and efficacy data from long-term trials of ADHD medications. Attention-deficit/hyperactivity disorder (ADHD) is a chronic childhood disorder that often persists into adulthood. Practice guidelines for the treatment of ADHD recommend that it be continued for as long as it remains clinically effective. Knowledge of the long-term safety and efficacy of ADHD medications is, therefore, essential.

#### Methods

Long-term (≥1 year) safety and efficacy data on stimulants (amfetamine and methylphenidate), atomoxetine (ATX), and adrenergic Q2 agonists used in the treatment of ADHD are reviewed.

#### Results

Long-term clinical trials of all classes of ADHD medications indicate that improvements in ADHD symptoms are evident during the first 4–12 weeks of treatment and are maintained with continued therapy. Treatment-emergent adverse events (TEAEs) associated with stimulants and ATX include insomnia, headache, decreased appetite, and weight loss; somnolence, headache and fatigue were commonly observed in trials of the a2-agonist guanfacine extended release (GXR). Among the concerns associated with long-term use of ADHD medications are their reported effects on growth and cardiovascular parameters.1 In a recently completed 2-year trial of lisdexamfetamine dimesylate (LDX) in children and adolescents with ADHD, mean weight, height and body-mass index (BMI) were reduced, although these changes occurred mainly in the first year of therapy and then attenuated. No clinically concerning trends on sexual maturation were observed. Data from a long-term GXR trial provided little evidence that GXR is associated with deviations in standardized weight or height. Similar findings were observed in a long-term observational study of GXR. Data describing changes in weight, height and BMI of potential clinical importance will be discussed in comparison with previous evidence across different ADHD medications. Vital signs outcomes from long-term trials of ADHD medications will be will be discussed in the next presentation.

#### Conclusions

Symptomatic improvement and a generally acceptable safety profile are maintained with long-term use of stimulant and non-stimulant medications. Regular monitoring of weight is an essential aspect of long-term ADHD treatment.

1. Cortese S et al. J Child Psychol Psychiatry 2013;54:227–246

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#### 2684 - ADHD treatment beyond symptom control

**Professor Michael Huss** 

Objectives: It is becoming increasingly clear that treatment outcomes for attention-deficit/hyperactivity disorder (ADHD) should extend beyond improvements in core symptoms.1 Here we evaluate outcomes related to functional impairment, health-related quality of life (HRQoL) and cognition from clinical trials of stimulant (methylphenidate and amfetamine) and non-stimulant (atomoxetine and adrenergic  $\alpha$ 2 agonists) medications.

Methods: Clinical trials of ADHD medications were reviewed for data describing non-symptomatic outcomes. The strengths and caveats of the instruments employed, together with the contribution of these outcomes to the overall effectiveness of ADHD medications are described.

Results: Improvements have been reported in several aspects of functional impairment and HRQoL following administration of the stimulant and non-stimulant medications. Reported effect sizes are generally larger for improvements in symptoms than functional impairment or HRQoL, and associations between changes in symptoms and functional impairment or HRQoL are reported to be moderate. Consistent evidence that ADHD medications improve cognition is currently lacking, although a meta-analysis of randomized-controlled trials found methylphenidate to be significantly more effective than placebo in improving cognitive function,2 and a recent head-to-head, placebo-controlled study confirmed that methylphenidate monotherapy and methylphenidate in combination with guanfacine was more effective than placebo or guanfacine monotherapy in improving working memory.3 Yet, changes in cognitive measures appear not to be correlated with symptom reduction.4

Conclusion: Clinical trials of ADHD medications have found improvements in functional impairment, HRQoL and symptoms. While ADHD medications may result in remission of core symptoms, deficits in non-symptomatic outcomes may not improve to the same extent. The partial associations between symptoms, functional impairment and HRQoL indicate that these are relatively independent domains of treatment response, and do not represent objective measures of symptomatic improvement.

- 1. Adamo N et al. Expert Rev Clin Pharmacol 2015;8:383–397
- 2. Coghill DR et al. Biol Psychiatry 2014;76:603-15
- 3. Bilder RM et al. J Am Acad Child Adolesc Psychiatry 2016;55:667–673
- 4. Coghill DR et al. Biol Psychiatry 2007;62:954–962 Supported by funding from Shire International GmbH



### 2685 - Delivering evidence-based long-term ADHD care — The Dundee ADHD Clinical Care Pathway and beyond

**Professor Michael Huss** 

#### Objectives

To describe the optimization of treatment for patients with attention-deficit/hyperactivity disorder (ADHD) using evidence-based care pathways such as the Dundee ADHD Clinical Care Pathway (DACCP).1

Methods

The DACCP is an integrated care pathway for children and adolescents with ADHD, comprising four key stages, and focusing on the use of standardized protocols and clinically relevant instruments.

#### Results

- 1 Referral and pre-assessment screening. When a referral letter is insufficient to decide whether a full clinical assessment is needed, a 'direct but distant' approach is used. This involves nurse-led telephone interviews with a parent/carer, using the ADHD Rating Scale IV (ADHD-RS-IV) or the Swanson, Nolan and Pelham (SNAP)-IV questionnaire. A mean item score of >2 on the ADHD-RS-IV/SNAP-IV is highly suggestive of ADHD and a full assessment will be advised; scores in the range >1 to ≤2 require clinical judgement.
- 2 Assessment, diagnosis and treatment planning. Specialist nurses use structured assessment documents to gather information in face-to-face interviews. Diagnosis and treatment options are then discussed with a senior clinician. Therapy options follow the recommendations of SIGN, NICE and European guidelines.
- 3 Initiating treatment. First-line medication is usually methylphenidate (MPH). Dose titration is essential to achieve maximum benefit with minimal adverse effects. Optimal symptom control is based on assessments, clinical judgement and patient/carer feedback. A mean item score of ≤1 on the ADHD-RS-IV/SNAP-IV indicates a very good/optimal treatment response. If the response to MPH is inadequate, patients will usually be switched to lisdexamfetamine dimesylate or atomoxetine.
- 4 Continuing care/monitoring treatment. Here, there is increased emphasis on improvements beyond ADHD symptom control (e.g. functional impairment) and comorbidities. We present data showing that improvements in ADHD symptoms achieved using the DACCP are of a similar scale to those reported in clinical trials, and are maintained in the long term with appropriate monitoring.

#### Conclusions

The DACCP demonstrates that a standardized, evidence-based approach can deliver effective ADHD care for patients in the real world. Such pathways should be continually updated and flexible, and may be suitable for translation into other healthcare settings.

1. Coghill D & Seth S. Child Adolesc Psychiatry Ment Health 2015;9:52

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S03-09: Therapeutic interventions for high risk population during perinatal and infanthood period: parental psychopathology, immigration, networking and models of intervention.

Missonnier Sylvain

In this symposium, we address the question of the impact of psychosocial difficulties, exile and culture on family mental health during the perinatal period. Three new therapeutic models of intervention are presented to cope with these issues. An ethnopsychoanalytical and family system setting enables screening for immigrant parents-to-be and assists them in mobilising their resources. A mother-toddler group will be presented to improve affect regulation and attachment as well as mother-child bonding in very low functioning families. Finally, we present an application of the Bick-Tavistock method of closely observing babies, developed for infants suffering from severe emotional, attachment and relational distress.



2916 - Family psychopathology impacts on infants and healthcare network : challenges and propositions.

Medical Doctor Ana Garcia

We will present a Geneva multidisciplinary perinatal health care model, starting in the antenatal period, for families at high psychosocial risk. We will analyse the major difficulty to recognise and focus on infant suffering - whose signs are moreover not specific - despite of close collaboration and high sensitivity of care network members. We will describe principal parenting competences, main symptoms of infant suffering and the impact on their global cognitive motor and social/emotional development. To improve child care, we propose a comprehension of unconscious mecanisms within healthcare network reflecting family psychopathology.

Key words: perinatal, parent psychopathology, healthcare netwwork, high risk family.



#### 2921 - Becoming a parent in exile: harnessing cultural influences

Medical Doctor Saskia von Overbeck Ottino

Immigrant mothers, especially refugees or asylum seekers, face many risk factors which may compromise their transition to motherhood and early interactions with their baby. Yet, this population underuses mental health services aiming at-risk pregnancies. To address this gap, we have created in Geneva a care model for screening these women. We invite the parents-to-be to our consultation before and after the birth of their baby. The initial results show these parents experience great distress as they try to cope with multiple loss, including that of their home cultural environment. Using ethnopsychoanalytical and family systems approaches, we help individuals mobilise their resources (cultural, psychological) to prevent or reduce disorders in peripartum; and we address countertransference reactions triggered in the intercultural encounter between therapist and immigrant families.



#### 2922 - A model of mother/toddler group

Caroline Moutia

We would like to present our mother/ toddler group, inspired by Anna Freud's Clinique with groups. How we use the group to help mothers and children to strengthen their relationships and interaction. Groups are "meetings of minds" and therefore a place to mentalize (Peter Fonagy). The parent's / babies attachment to the group gives us indicators of any problems in their relationships. In families with vulnerable backgrounds and psychiatric disorder, some suffer disorganized attachment and allegedly fail to develop mentalization and communication capacities within the context of an attachment relationship. In our group we implicitly and explicitly interpret the actions of oneself and others as meaningful. The parents-toddler group helps also development of toddlers in all areas of their personality through talk and play. Together we think about the child's feelings, behavior. During the group, parents and toddler play freely and talk about concerns such as eating, toileting, tantrums and sleep. We illustrate how both parent and babies benefit from imitation, verbal and non-verbal exchange based on the mirror neurons system.

The object of treatment is that our patients increase mentalization capacity, which improves affect regulation and attachment and consequently the mother-child relation. The aim is also to encourage the child's self-confidence, independence and development.

Key words: toddlers, group, mother-toddler, attachment, mentalization.



#### 2924 - Therapeutic uses of the Bick-Tavistock Method of emotionally observing babies

MD Inaki Marion Moron

We will show how the observation method developed by E. Bick (1964) is used by child psychiatrists in various therapeutic applications with babies and young children suffering from severe emotional and relational distress. We examine the direct impact of the observations, as well as the benefits derived from clinically discussing these observations in a weekly supervision group. Discussion of the observer's counter-transference provides precious insight into the emotional experience of these infants and young children. Discussing and thinking about the observations in the presence of the child's therapist (who is not the observer), educators and caregivers serves to strengthen ties within the network and creates a thinking container for young children who are repeatedly confronted with emotional discontinuity.

Key words: Bick, observation, psychodynamic intervention, counter-transference, discontinuity.



S03-10: « Addiction medicine - specificities in adolescents and young adultscurrent situation and perspectives »

MD PHD André Kuntz

RFSM - Reseau fribourgeois de sante mentale. Centre cantonal d'addictologie

In most european countries substances such as alcohol, nicotine and Cannabis are widely available. Consumption of alcohol for example is a part of many european cultures. Substance abuse is a major health concern on a global level. Early development of a substance use resp. abuse during adolescence respectively as young adult is known to be one of the key factors for a substance use disorder in later adult life.

Substance use disorder amongst adolescents is often a challenge for treatment centers as it's an interdisciplinary problematic between child and adolescent and adult psychiatry.

The aim of the symposium is to highlight the situation of adolescents and young adults with a substance use disorder and to compare specific treatment models for adolescents and young adults in several european countries: Switzerland, Portugal and Greece with contributions from thoses countries.

An opening session will resume the psychopathological speicifities during that life period. Three contributions from Switzerland. Portugal and Greece will focus on the treatment of those age groups in those 3 european countries.



3304 - Psychotherapy in special settings: Working with adolescents and young adults drug users at the Psychiatric Hospital of Attica/Greece

Petros Kefalas Psychiatric Hospital of Attica

The Department of rehabilitation for adolescents and young adults was created in 1992, when we wanted to differentiate the therapeutic care of outpatient towards adolescents and young people from adults addicts, placing on the centre of the therapeutic approach the specificity of adolescence. In the clinical practice, apart from the usual emphasis given on the use-symptom, we seek along with the youth the responsible agents of their addiction through exclusively psychological ways namely the frame of psychotherapy. The therapeutic steps of approaching those young people include the reception of the request, individual and group psychotherapy, parallel cooperation with their parents or other communities etc.

The way through which these young people express their psychic pain, their repetitive behaviours which immobilize their emotion, their desire to create their own space independent and free (relation free) while imprisoned in their own addiction, focuses on the 'here and now' and assumes a character of urgency accompanied by challenge, relapse, overdose and frequently violence and death too. Faced with requests of this nature, the therapist is invited to shift positions from the ones commonly assumed and to function differently as well as bearing in mind that the addict invites (and causes) him to function in the 'here and now', 'all or nothing'. This has led to a number of questions that are still valid today such as: Can psychotherapy help those people who are under influence? How can a demand for help be created in the addict? Etc. In our current work, we attempt a detailed examination of aspects and dynamics of the institutional care which can allow us to enlighten the demands and limits of this effort. Key words: adolescence, drug use, addiction, dependence, need, neoneed, toxic element, institutional care

Mr Petros Kefalas

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Centre d'accueil et de soins pour adolescents et jeunes adultes usagers des drogues de l'Hôpital Psychiatrique d'Attique,

Athènes Grèce.



### 3308 - "Na Corda Bamba" - a theurapeuthic intervention project for adolescents with adictive behaviors

Child and adolescent psychiatrist Neide Urbano Department of centro hospitalar Lisboa Central, Hospital Dona Estefânia,

Recent epidemiological studies on the patterns and trends of psychoactive substances consumption and risk behaviors among the Portuguese adolescent and young population, highlight the increase in psychoactive substances consumption and changes in consumption patterns among youth and adolescents, like binge drinking (massive consumption of alcoholic beverages in a short time); the appearance of new psychoactive substances, polysubstance abuse, as well as the increase of risk behaviors for substance use. These alarming results point to the need for a concerted strategy of preventive intervention in this problem.

Among various projects aimed at young people that have emerged in Portugal, "Na Corda Bamba" has a preventive focus and involves the participation of different public institutions of Lisbon, being the only one where a child and adolescent psychiatrist is involved.

The aim of this project is to prevent the progression into the development of addictive behaviors and dependence disorders, the associated damages in adolescents and youth from 12 to 24 years of age, aiming to promote their positive psychological development.

The program intervenes in the change of specific psychosocial risk factors at the individual, family, school and community level and promotes known protective factors.

It is based on the following principles: accessibility; provision of a place of information and on an immediate and informal, face-to-face and non-face-to-face service through an interdisciplinary and multipurpose team.

This paper intends to present the Portuguese context regarding adictive behaviors in adolescents and young people, to describe the project "Na Corda Bamba" and to present the results of a two year pilot study of the project.



#### 3305 - Psychopathology and drug abuse during adolescence

Senior psychiatrist Maria Karyoti

Réseau fribourgeois de santé mentale, Center for child and adolescent psychiatry and psychotherapy

The issue of co-morbidity, i.e. the coexistence of psychiatric disorder and use/dependence on toxic substances, acquires a special significance and importance during the adolescent period. It is important for diagnostic purposes as it can transform to a psychiatric disorder a multidimensional mental health problem and in this way it will eliminate every healthy confrontational element that characterizes the adolescence behavior.

We could also consider certain forms of psychopathology in adolescence, as toxic psychoses, depression and risk behaviors to which, the use of substances, also belongs, as a chance for an access to a therapy for these 'difficult' populations.

Moreover, the psychopathology detected depends closely on the time in which the adolescent is examined. The clinical status is different during the period of withdrawal syndrome and different during the period of abstinence.

There are frequently reported episodes of depression during the treatment which increases the risk of suicide or re-offending.

The understanding of these critical issues requires careful child psychiatry approach and evaluation on both psychiatric disorder and dependence on toxic substances, within a specific institutional framework.

Putting these concerns without being hasty on any kind of diagnoses, we allow lightening the particularities of adolescence as well as the particularities of the function of the child and adolescent psychiatry therapeutic group.

Dr Maria Karyoti Médecin Adjointe Secteur de psychiatrie et de psychothérapie pour enfants et adolescents, Réseau fribourgeois de santé mentale



3366 - Addiction and First Psychotic Episode : how to treat them together?

Dr Isabelle Gothuey

Réseau Fribourgeois de Santé Mentale, secteur de psychiatrie et de psychothérapie de l'adulte.

Co-occurring addictive disorders are frequent in hospitalized young adults or adolescents with a first psychotic episode (FEP) (Wisdom et al., 2011)(alcohol, cannabis, synthetic drugs, heroin and cocaine in decreasing order) (Wisdom & Manuel, 2011). Prioritizing the treatment of the psychotic episode addictive problems are often considered by caregivers as secondary problems or as a consequence of the psychosis. We can observe a lack of addiction diagnosis and of integrated specialized addiction care in general psychiatric units. Generally, substance misuse in young people is considered more as a part of the expression of their existential rebellion than as an illness. However, the follow up shows that an improvement in addictive behavior is the first step to change the global perception of treatment of psychosis (Moore et al., 2012).

Method: 3 out of 9 inpatient units of the psychiatric hospital (170 beds) of the canton of Fribourg in Switzerland (300.000 inhabitants) treat regularly young psychotic patients: 1. for young adults with a first psychotic episode of psychosis (21 beds), for adolescents (10 beds) and for adults with a substance-use disorder (21 beds).

There is a frequent relocation of psychotic adolescents to both units for FEP and substance abuse disorders due to antisocial behaviors, substance use and deals, which care givers don't know how to manage differently. But also in the unit for psychotic disorders addictive problems are more often underestimated, a specific addiction treatment or counseling program is not proposed. The unit for addiction psychiatry has a better focus on and comprehension of addictive behaviors and a higher tolerance for antisocial behavior, but is less efficient in the specific treatment of first psychotic disorders.

In order to improve the treatment for co-occurring disorders of patients with FEP, specialists for child and adolescent, general and addiction psychiatry reviewed the scientific basis and proposed pilot projects.

Results: Three treatment models will be discussed:

- 1. An Integrated specialized inpatient unit in co-occurring disorders and FEP.
- 2. Counseling with mobile specialized addictive care givers who make consultations in general psychiatric and in adolescent psychiatric units.
- 3. Specialized outpatient consultations for co-occurring disorders for hospital discharge (Horsfall, 2009).



### 3319 - Addiction medicine for adolescents and young adults in Switzerland-treatment models and perspectives

MD PHD, adult psychiatrist with specialisation in addiction medicine Andre Kuntz Réseau fribourgeois de santé mentale, Centre cantonal d'addictologie

Adolescence and young adult age is a specific period of life when young people we undergo a lot of changes, learn new things, become independent and have to deal as well with the exposition to psychotropic substances such as alcohol, nicotine, cannabis etc., but also to media and technologies such as the internet, smartphone and online games.

Treatment and diagnostic of young adults and adolescents with an addictive behavior is a challenging field and requires an interdisciplinary approach between child and adolescent psychiatry and adult psychiatry to face the specific needs of this young population. In 2016 a new specialization in addiction medicine was introduced in Switzerland as a sub specialization of adult psychiatry. The current presentation will briefly present the curriculum of this new specialization in addiction psychiatry and psychotherapy. With the new sub specialization the question arises how to gap the bridge between addiction psychiatry and psychotherapy and child and adolescent psychiatry in order to offer the best possible treatment for this young age group.

Furthermore the existing treatment modalities and models for this specific age group primarily in Switzerland will be presented and discussed, based on professional experiences in this field, a scientific review of the literature and an overview of treatment and support facilities in different parts of Switzerland for adolescents and young adults with an addictive behavior.

Treatment and diagnostic of young adults and adolescents with an addictive behavior is a challenging field and requires an interdisciplinary approach between child and adolescent psychiatry and adult psychiatry to face the specific needs of this young population.

In this presentation existing treatment modalities and models for this specific age group primarily in Switzerland will be presented and discussed, based on professional experiences in this field, a scientific review of the literature and an overview of treatment and support facilities in different parts of Switzerland for adolescents and young adults with an addictive behavior.

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### S03-11: Mental Health Issues of Refugee Children and Adolescents in South East Europe

Prof. Dr. Dimitris Anagnostopoulos

During the last few years South East Europe is facing an ongoing burden of millions refugees coming from Asia, mainly from Syria and Afghanistan. The countries of the area are used as the gate for the refugees' way to the Central and North Europe countries. The refugee children and adolescents are under a continuous impact of accumulative risk factors, related to pre, during and after their flight conditions, to present mental health problems.

The aim of this symposium is to present the various psychosocial and mental health issues as these are recognized and confronted in different involved countries such as Turkey, Greece, Serbia, Croatia and Cyprus.

The will be presented issues such as the impact of post traumatic stress disorder, the differences in psychopathology related to different status of immigrants, the longitudinal mental health consequences of the childhood trauma, the mental health policies which have been implemented to confront the refugee crisis and finally the role of cultural identity in clinical practice with refugee adolescents.



3015 - People on the move: The experience of an outpatient child & adolescent psychiatric service in Athens with families living outside their countries of origin

Evdokia Lagakou

Objectives: During the last months Greece is experiencing an unprecedented refugee crisis. However, the Greek health system has always been confronted with "moving families", living outside their country of origin. The aim of our study is to investigate the psychopathology of immigrant children and adolescents in Greece.

Methods: It is a retrospective study of the medical records of all children and adolescents with immigrant background, who have been referred to the Child and Adolescent Unit of the Community Mental Health Center of the University of Athens Psychiatric Clinic over a period of 10 years (2005-2014), replicating a previous study covering the 1997 – 1999 period (Anagnostopoulos, D.C. et al., 2004). Immigrant children and adolescents were matched by age, gender and intake date with children and adolescents of Greek origin. Obtained data concern sociodemographic characteristics (e.g. age, gender and country of origin) and diagnostic categories according to ICD-10.

Results: Initial findings indicate that there is a rise in cases from the diagnostic category "behavioral and emotional disorders with onset usually occurring in childhood and adolescence" (F.90-98 in ICD-10). Similarly, immigrant children and adolescents were frequently being diagnosed with a condition "presenting potential health hazards related to socioeconomic and psychosocial circumstances" (Z axis of ICD-10).

Conclusion: Behavioral and emotional problems of immigrant children and adolescents have increased during the last decade. The socioeconomic adversities that have resulted from the recent serious financial crisis that the country is facing, may have contributed to the abovementioned rise. The Greek health system has a long experience with moving populations. In time of crises there is an urgent need to apply existing knowledge, in order to design strategies that could best address the multiple and complex needs of people on the move.



### 3031 - Post Traumatic Stress Disorder Level of Child and Adolescent Refugees From Syria and Iraq

Saziye Senem Basgul

Aims: a) to identify the Post Traumatic Stress Disorder (PTSD) level and its progress in the Iraqi and Syrian refugees who took refuge in Turkey and lived in three different areas. Iraqirefugeeslivedin a camplocated in thecity of Diyarbakır and a camplocated in a district of Batman calledBeGiri. Syrianrefugees lived in thecitycenter of Batman. b)to investigate the relationship between TSSB and various socio-demographic variables regarding certain events; to identify the level of post-war psychological suffer, the effects caused by the war and necessary precautions that must be taken. 202 refugees from the three areas participated in the study: A 36-item scale was employed to find out if the refugees had PTSD andt helevel of violence ift hey had it. The findings obtained from 123 male and 79 female and indicated that thecurrent PTSD frequency of Iraqi and Syrian refugees was 57,9% over the last month and life-long frequency was 58,9%. It was found out the possibility of the PTSD diagnosis in the refugees increased as they grewup, lost a member of their family and a friend, were sexually abused, witnessed explosions and weres ubjected toviolence. The average of thecurrent violence PTSD points of Iraqi and Syrian refugees was 78,07% over the last month and the average of the life-long violence was 81,28%. Considering the violence points of the CAPS scale between 0 and 136, it can be saidthatboththeaverage of the current violence PTSD points and the average of the lifelongviolence PTSD pointstheaverage of the life-longviolence TSSB pointswashigh. A significant correlation at medium level towards a positive way (p<.05) was found between the current points of PTSD diagnose and the life-long PTSD points, and variables such as participants witnessingwarcasualties, explosions and death, being taken as a hostage, beingexposedtoviolenceandsexualabuse, beinginjuredorhaving an accident.



3071 - Longitudinal impact on the development of psychopathology in children refugees: A Case Study 42years after war

Kallistheni Pantelidou Vorka

The aim of this presentation is to illustrate the longitudinal effects of trauma and grief in the case of Cyprus through a clinical case. The case of the given patient could be associated with thousand similar cases and phenomena that prevail in today's world. That is, phenomena of war, conflict, differences of national identity, religion, and race. The specific patient is in psychotherapy aiming reconstructing her crumbled story through intense feelings, memories, and memory traces. Death, loss of a father, persecution, anxiety and stress, forced migration, isolation, are all phenomena that lead to disorders of Ego function such as depersonalization, difficulty in the de-idealization and normal grief, and in a more heavy cases disturbances of children normal psychological development and adolescents' difficulty in the development of a stable identity.



#### 2918 - Refugess crisis — experience from Serbia

Prof. Dr Milica Pejovic Milovancevic

Refugees and migrants who come to Europe often faced war, persecution and extreme hardships in their countries of origin. Many experienced displacement and hardship in transit countries and embarked on dangerous travels. Available data from authorities, UNHCR, and partners indicates that an estimated 6,400 people remain in Serbia, of which over 60% are women and children at the end of 2016. Main nationalities represented include 52% from Afghanistan, 17% from Iraq and 16% from Syria. Serbia is mostly a country of transit for refugees and shelter, nutrition, health care, appropriate clothing is something that we obtained for refugees. Medical help to refugee/migrant children is provided by the health services of Serbia, Doctors Without Borders, as well as several NGOs whose medical staff provides emergency care and triage and refers them to nearby medical centers if necessary. Regarding the mental health problem we recognized the to listen and respect "voices" of the children and families, taking into account their traditional, cultural and historical background in non-discriminatory and culturally sensitive way. With UNICEF and Save the children we are trying to apply 'Do No Harm' principle. This implies that humanitarian action must avoid exacerbating disparities and should avoid discrimination between affected populations on the basis of the causes of crisis and take into account the special needs of the most vulnerable groups of children and women – including internally displaced persons, unaccompanied minors and the disabled. In Serbia it has been set up child-friendly spaces and mother-and-baby corners. In these safe places, children can rest, play and receive psychosocial support by qualified professionals who can best understand and respond to their needs, while women can breastfeed their babies in privacy and if needed, prepare and provide age-appropriate food for their children.



#### 2923 - Mental health care of refugee children in Croatia

Vlatka Boricevic Marsanic

Croatia has been experiencing the migration wave during 2015 and 2016 with the vast majority of refugees were from Syria, Iraq and Afghanistan. The Croatian health and social care services adapted very well to the circumstances created by the recent refugee crisis due to experiences with population displacement in recent war. The Crisis Headquarters of the Ministry of Health, which was established during the war and has been permanently working ever since, coordinated all activities in providing health care to refugees in collaboration with participating humanitarian partners. Several collective centers and camps have been organized which provided living accommodation and emergency and primary health care through mobile health teams. Protocols for the medical examination of the refugees, protection against infectious diseases, and a list of necessary medicines and medical equipment were created. People with severe health conditons were referred to appropriate secondary services. Healthcare public services areaccessible without any charges to the refugee population. Migrants were not a homogenous group, and therefore, the provision of health care was necessarily influenced by the demands of people of many different cultures. Trained interpreters from the countries of origin of migrants were involved. The primary goal of psychosocial interventions delivered to displaced youth and their families focused on initial support and crisis resolution in the short term, but also on addressing risks for longer-term consequences due to the profound losses and ongoing daily stressors that many displaced persons and refugees have experienced. Focused psychosocial support was provided through individual, family and group interventions to those youth and families who had difficulty coping, and were delivered by trained non-specialized workers in health and community services with ongoing supervision. Someyoung refugees needed referral to clinical services due to moderate and severe mental problems (severe anxiety and/or depression, deliberate self-harm, suicide threats and attempts, aggressive behavior, psychotic reactions, pervasive refusal syndrome) as observed in EU other countries.



### 3018 - Working with immigrant/refugee youth: the role of cultural identity in clinical practice

Winny Ang

The culturalidentityconsists of one's racial, ethnic, or cultural reference groups and other relevant aspects of identity, such as degree of involvement with the culture of origin versus host culture, religion, socioeconomic background, place of origin, migrant background, and sexual orientation[1]. Particularlyin a context of migrationand globalization, identity must beconsideredas a fluid, dynamic and multidimensional concept. Taking in account cultural identity is even more crucial during adolescence, since identity formation is evidentlyone of the most substantial developmental tasks adolescents face. For immigrant adolescents, an additional challenge is created: they have to learn tonegotiate different cultural identities. Recognition of one's cultural identity is essential for her/his well-being [2]. In this presentation, the significance of cultural identity is reflected on, based on clinical experience and good practices.



### S03-12: Synapsy symposium: neuroimaging markers of psychosis in 22q11.2 deletion syndrome

MD, PhD Marie Schaer

The characterization of brain alterations associated to the presence of psychotic symptoms has the potential of revealing neural biomarkers of psychosis, which will help the diagnosis and treatment of psychotic disorders. Neuroimaging represents a unique tool for the identification of biomarkers in vivo and in human patients. 22q11.2 deletion syndrome is a neurogenetic disease predisposing to a high risk of schizophrenia and therefore considered a model of the disease. In this symposium the authors will present neuroimaging findings in patients with 22q11DS using different imaging modalities (structural MRI, diffusion tensor imaging, resting-state fMRI). In particular, the presentations will focus on alterations in brain morphology and connectivity associated to more severe psychotic symptoms, which may serve as biomarkers of increased risk of psychosis.



### 2986 - Altered structural network architecture is predictive of the presence of psychotic symptoms in patients with 22q11.2 deletion syndrome

MSc Maria Carmela Padula

#### **Objectives**

22q11.2 deletion syndrome (22q11DS) represents a homogeneous model of schizophrenia particularly suitable for the search of neural biomarkers of psychosis. Impairments in structural connectivity related to the presence of psychotic symptoms have been reported in patients with 22q11DS. However, studies investigating connectivity differences in patients with 22q11DS with different symptomatic profiles are still scarce and need further investigation. In this study we investigated differences in structural connectivity in patients with and without mild to attenuated positive symptoms of psychosis using univariate and multivariate approaches. Methods

Twenty-seven patients with 22q11DS with attenuated positive psychotic symptoms (psy+) were selected as having a score higher than 3 in at least one of the positive subscales of the Structured Interview for Prodromal Syndromes. As comparison group, 27 non-symptomatic patients (psy-) were selected and individually matched for age and gender. Different structural connectivity measures were compared between the two groups, including the number of connections between pairs of brain regions, graph theory measures and diffusion measures. Group comparisons were performed using Mann Whitney U-test and a multivariate classification. In particular, a naïve Bayes classifier was trained and tested using leave-one-subject-out cross validation (LOOCV). Results

The univariate comparison of connectivity measures between psy + and psy- patients did not give significant results. However, the multivariate analysis revealed that altered structural network architecture significantly discriminate patients with and without attenuated positive psychotic symptoms with a max accuracy of 70%. Among the regions contributing to the significant classification there were the superior fontal and the anterior cingulate cortices. Conclusion

Our results showed that differences in patients with 22q11DS with and without mild to severe positive psychotic symptoms are subtle and emerge only when using a multivariate approach. In particular, measures of impaired network architecture allowed to significantly discriminate the two group of patients, and pointed to dysconnecivity of frontal and limbic regions in patients with higher positive symptoms severity. Therefore, alterations in structural network architecture may represent a potential biomarker for an increased risk of psychosis in patients with 22q11DS.



### 2990 - Alterations of structural covariance networks in 22q11DS in relation to psychotic symptoms, a cross-sectional and longitudinal investigation

Dr. Cristina Vino

#### Objectives

22q11.2 Deletion Syndrome is a genetic disorder that is considered as a model to study the pathogenesis of psychosis. Structural covariance is a method of exploring the architecture of human brain networks. Alterations of brain network architecture have been previously linked to psychosis.

In the present study we explore alterations of structural covariance networks (SCNs) specifically linked to psychotic symptoms. We also implement a novel longitudinal approach to describe a deviant maturation of SCNs in 22q11DS.

#### Methods

We acquired structural T1 weighted images in the largest neuroimaging cohort of 22q11DS to date: 124 patients (M/F=65/56) each with 1.8 scans (220 scans) and in 121(M/F=59/65) healthy controls (HC) each with 2.1 scans (253 scans). For cross-sectional analysis patients were divided according to the presence of at least moderate psychotic symptoms. SCNs were constructed with a standard protocol using Freesurfer. We employed graph-theory to investigate alterations of network architecture. For longitudinal investigation we implemented a novel sliding-window approach that allowed precise description of developmental trajectories.

#### Results

Psychotic patients (PPs) selectively presented alterations of SCNs, which were more segregated and less segregated, both compared to HC and non-psychotic patients (NPPs). PPs additionally displayed aberrant connectivity in the anterior cingulate portion of the salience network. Our longitudinal analysis on the entire cohort revealed that the aberrant increase in segregation and reduction of integration coincided with the period of maximal vulnerability to psychosis, during mid to late adolescence. Interestingly this aberrant maturation was preceded by a lack of development during late-childhood, that is the critical period for the development of SCNs in controls.

#### Conclusion

Our results confirm that alterations of brain network architecture and aberrant connectivity of the salience network are important in the pathogenesis of psychosis.

A novel longitudinal approach allowed to demonstrate deviant development of SCNs in 22q11DS, with an aberrant maturation in during adolescence, preceded by a lack of maturation during late-childhood. It could be hypothesized that the reduced maturation during late-childhood could predispose to the subsequent aberrant maturation during adolescence. If this were confirmed, it would highlight late-childhood as a critical period for early neuro-protective intervention.



### 3007 - Multivariate BOLD signal variability alterations in psychosis in 22q11.2 deletion syndrome

Daniela Zöller

OBJECTIVES Although rarely considered in fMRI studies, blood oxygenation level dependent (BOLD) signal variance might present a potential marker for brain dysfunction. Chromosome 22q11.2 deletion syndrome (22q11DS) is a neurodevelopmental disorder coming with a high prevalence of schizophrenia of 30 % to 40 %. In this study, we investigated multivariate alterations in BOLD signal variance and its age-relationship related to psychotic symptoms. METHODS We included 19 patients with 22q11DS who presented mild to severe positive psychotic symptoms (PS+, mean age =  $17.16\pm3.92$ ), defined by a score of 3 or more in one of the positive sub- scales of the SIPS. We compared them to 19 patients without positive psychotic symptoms (PS-, mean age =  $17.21\pm4.05$ ), who were individually matched for age and motion. After conventional preprocessing of the resting-state fMRI scans, BOLD signal variance was determined by calculating the temporal standard deviation of voxel-wise time series. We then applied Partial Least Squares correlation (PLSC) to reveal al-terations in BOLD signal variance and in its relationship with age. PLSC maximizes the correlation between two data sets in a multivariate way and is, therefore, very well suited to analyze the relationship between highdimensional brain data and other subject-specific design variables, such as diagnosis and age. RESULTS PLSC analysis of PS+ and PS- patients resulted in two significant components. The first component showed brain areas with altered age-relationship of BOLD signal variance in PS+. It revealed a negative correlation between BOLD signal variance and age in the PS+ group in prefrontal regions. This relationship was not evident in the PS- group. Prefrontal areas are known to be structurally a etected in schizophrenia and 22q11DS. The second component detected brain areas with altered BOLD signal variance in the PS+ group. BOLD signal variance in the PS+ group was lower in the superior frontal cortex and higher in the orbitofrontal and anterior cingulare cortices (ACC). Dysconnectivity of the ACC has been reported in 22q11DS and linked to psychotic symptoms.

CONCLUSION This is the first study investigating BOLD signal variance in psychotic patients within a cohort of 22q11DS. Thanks to the multivariate characteristic of our approach we were able to reveal patterns of alterations and age-relationship specific to psychotic patients, which suggest BOLD variability as a potential marker for psychosis.



### 2998 - Investigation of Heterogeneity in Cortical Microstructure in Individuals with 22q11 Deletion Syndrome: a Diffusion MRI study

PhD Zora Kikinis

#### Objective

The gray matter of the brain has traditionally been investigated using structural Magnetic Resonance Imaging (sMRI). sMRI provides information about measures such as volume, cortical thickness and cortical areas, but not about the microstructural organization of the cortex. Diffusion MRI (dMRI) allows the detection of changes in the microstructure of tissues and could be used for the investigation of the effects of abnormal neurodevelopment in the cortical gray matter. In this study, we use dMRI to explore changes in microstructure in gray matter in individuals with 22q11Deletion Syndrome (22q11DS). We apply a new measure, the Heterogeneity in Fractional Anisotropy (HFAt), to explore the variability of microstructure within given areas of interest.

#### Methods

We acquired dMRI and sMRI scans from 56 subjects with 22q11DS and 30 healthy controls, mean age 21 years. sMRIs were used to extract and to parcellate gray matter into discrete anatomical regions (FreeSurfer). We then grouped those regions into three functional areas, namely the primary, paralimbic and associative. dMRI data were corrected for cerebrospinal fluid contamination using Free Water Correction first and then we calculated the HFAt in gray matter for each of the three functional brain areas. To investigate the relationship between microstructure and function we used the Stroop Interference test. This subtest is a measure of selective attention and response inhibition mediated by the paralimbic area.

#### Results

The HFAt was significantly increased in the associative area in the 22q11DS group, t(84)=-3.7, p<0.001, CI. 95 -0.01-0.03, d=0.85, as well as in the paralimbic area, t(84)=-5.5, p<0.001, CI. 95 -0.01-0.05, d=1.2, suggesting increased heterogeneity of gray matter microstructure in these regions. There were no changes in HFAt in the primary area. There was a negative correlation between the performance on the Stroop Interference test and HFAt in the paralimbic area in the 22q11DS group, r=-0.37, n=56, p=0.005. This suggests that greater variability in gray matter is associated with lower performance on the neuropsychological test.

#### Conclusion

This is the first report of microstructural changes in gray matter in individuals with 22q11DS using dMRI. dMRI is thus a useful tool, and HFAt is a useful measure, for assessing microstructural changes in gray matter of patients with 22q11DS. HFAt is also correlated with the cognitive measure mediated by paralimbic areas of the brain.



S03-13: Transient positive symptoms, in transition to psychosis, or first episode psychosis - how to treat a moving target and improve outcome of affected youths?

Prof. Christoph U. Correll

Schizophrenia remains one of the most severe mental disorders often emerging during the vulnerable developmental phase of adolescence (Correll et al. 2010). Efforts at preventing psychosis, and evidence-based early treatment are crucial. Research-defined at-risk syndromes based on mainly adult data are frequently met by adolescents, and (attenuated) psychotic symptoms may also emerge, stabilize, or progress to several mental and personality disorders (Gerstenberg et al. 2015). Thus, in this age-group, the diagnostic process as well as targeted treatment of (attenuated) psychotic symptoms is challenging. Age-appropriate treatment approaches drawing from youth specific interests, addressing complex symptomatology, associated burden and reduced functioning are needed. Finally, adolescents with psychosis are treated with antipsychotics, however, this age groups seems especially vulnerable for adverse effects (Vitiello et al. 2009). Medications with the most favourable benefit/harm ratio are needed, and head-to-head studies are sparse.

Prof. Correll and Dr. Franscini will co-chair the session. First, Dr. Gerstenberg will present longitudinal data of a sample of 12- 35 year-old participants of an early recognition study for psychosis. She will focus on outcome characteristics of symptomatology and functioning, also pointing to age-related differences. Dr. Franscini and Ms. Traber-Walker developed a manual and a smartphone application for targeted treatment of adolescents at-risk for psychosis. The app provides age-appropriate and real-time access to information on symptomatology and individually enriched skills for stressful daily-life situations. Ms. Traber-Walker will present the project schedule and first data on feasibility and usability. Next, Dr. Galling will present data of a meta-analysis providing an overview of the existing integrated or intensified treatment approaches for youth with psychosis and compare their effectiveness. These data are relevant for public health and directly guide clinical work. Finally, Drs. Pagsberg and Jensen will present original data of the Tolerability and Efficacy of Antipsychotics trial (TEA). In this multicentre, blinded RCT, patients aged 12-17 years with psychosis were treated with aripiprazole or quetiapine up to 12 weeks. Dr. Pagsberg will present first efficacy data and Dr. Jensen will focus on adverse outcomes, explicitly metabolic effects in this vulnerable group of patients.



2898 - Adolescents and adults at clinical risk for psychosis: Impact of risk profiles, age, and time on symptomatology and conversion rates during 36 months follow-up

MD Miriam Gerstenberg

Objectives: Adolescents and adults meeting research defined at-risk criteria such as attenuated positive symptoms syndrome (APSS) or basic symptom criteria (BS) including self-experienced cognitive disturbances (Cogdis), were followed prospectively in an early recognition program for psychosis. Previous findings show that the combined risk profile of both, APSS and Cogdis (APSS+/Cogdis+), may increase predictive power for conversion to psychosis. The present study examined the conversion risk to psychosis in relationship to specific risk profiles. Further, the impact of age and time on the course of symptomatology was assessed.

Methods: In 13-35 year-old participants, severity of illness, functioning, and a broad range of psychopathological domains were assessed at baseline and longitudinally (6-36 months). Conversion rates for different risk profiles were examined. APSS and BS including Cogdis were assessed based on the Structured Interview of Prodromal Syndromes (SIPS) and the Schizophrenia Proneness Instrument for Adults/Children and Youth, respectively. The APSS group was subdivided according to age at study inclusion into adolescents (<18) vs. adults (≥18).

Results: The conversion rate of the total sample (n=175) at 36 months was 11.4% (n=20). Considering the risk profiles at baseline, the highest proportion of converters was 20.3% in APSS+/Cogdis+ compared to 11.4% in APSS+/Cogdis- and 4.9% in BS. Of the baseline sample, 121 (69.1%) individuals were followed longitudinally. Drop-outs (n=54; 30.9%) did not differ from the re-assessed sample considering age, sex, or overall illness severity; IQ was lower (100±10 vs. 104±13; p<0.032). Adolescents more frequently met APSS than BS (n=37; 60.7% vs. n=9; 15.0%; p<0.0001). In the APSS group, adolescents showed higher SIPS disorganized, PANSS positive and negative symptoms at baseline compared to adults. Contrasting the more severe symptomatology, adolescents meeting APSS showed higher overall functioning and reported higher quality of life compared to adults. However, interaction analysis showed that symptoms similarly improved in adolescents and adults over time.

Conclusions: Individuals at-risk for psychosis meeting the combined risk criteria APSS+/Cogdis+ showed the highest conversion rate during 3-year follow-up. Adolescents with APSS showed more severe symptomatology compared to adults at baseline, but improvement of symptoms and functioning was moderated by time, rather than by age group.



2900 - Prospective follow-up study of a combined treatment approach for adolescents with attenuated psychotic symptoms: therapy modules enhanced by a smartphone application

MSc Nina Traber-Walker

#### **Objectives**

The most promising strategy in targeted prevention of psychotic disorders is to treat at-risk symptoms in the pre-psychotic period, the attenuated psychotic symptoms. Although attenuated psychotic symptoms are common in adolescence and associated with a marked reduction in functioning in this age group, there is a lack of evidence based treatment strategies and research within this population.

Within the last 3 years, we have developed a treatment manual targeting attenuated psychotic symptoms, improvement of quality of life and daily functioning in our specialized outpatient care unit for early intervention in psychosis. The therapy modules are based on evidence based treatment strategies in adults with at-risk symptoms, recommendations for adolescents with first episodes of psychosis, and follows the guidelines on early intervention in clinical high risk states of psychosis of the European Association for Psychiatry. The intervention includes a clinical treatment manual and a smartphone application for supporting the patients between sessions. The smartphone application "Robin" targets real-time symptom assessment, medication adherence, and provides coping strategies for dealing with symptoms of psychosis and daily life hurdles.

#### Methods

In February 2017, we will start a systematic clinical intervention study for testing the efficacy of this combined treatment approach. The goal is to compare efficacy of a 16-week intervention in 30 patients with at-risk symptoms (age range 14-18) with an active control group (treatment as usual). Within this prospective study, at-risk symptoms and data for comorbid symptoms, functioning, self efficacy, and quality of life will be collected at six time points (baseline, during the treatment period, immediately after intervention and 6, 12 and 24 months later).

At the congress in Geneva we will present our first results. This will include implementation of the treatment manual with smartphone application, baseline results and first findings of treatment period.

#### Conclusion

Even though young patients with at-risk symptoms may profit best of specialised treatment approaches, little is known about age-appropriate treatment strategies in this vulnerable age group. To our knowledge this is the first controlled trial to test the efficacy of a specific treatment program for young patients with attenuated psychotic symptoms.



### 2901 - Effectiveness of Early Intervention Services for Patients with Early Psychosis

MD, MA Britta Galling

Objectives: Comprehensive, multidisciplinary, team-based treatment approaches for first-episode psychosis have been shown to have beneficial effects on clinical and functional outcomes.

Methods: Systematic literature search until 06/15/2016 for randomized trials comparing coordinated specialized care (CSC) versus Usual or Modular Care (UC/MC) in ≥20 patients with a study-defined diagnosis of a first psychotic episode or early-phase schizophrenia-spectrum disorder. Random effects meta-analysis, sensitivity analysis and meta-regression analysis for co-primary outcomes (treatment discontinuation; ≥1 psychiatric hospitalization) and key secondary outcomes (total symptom improvement; functioning; vocational rehabilitation). CSC and UC/MC were compared at study endpoint and by specific time period, i.e., short-term (6 months), medium-term (9-12 months), and longer-term (18-24 months). Maintenance effect was analyzed using follow-up data after CSC ended.

Results: Meta-analyzing 10 studies (n=2,176; age=27.5 $\pm$ 4.6) years; male=62.3%; trial duration=16.2 $\pm$ 7.4 (range=9-24) months) CSC was superior to UC/MC regarding all-cause discontinuation (studies=10, n=2173, RR=0.70, 95% confidence interval (CI)=0.61-0.80, p<0.001),  $\geq$ 1 hospitalization (studies=10, n=2105, RR=0.74, 95%CI=0.61-0.90, p=0.003; NNH=10.1, 95%CI=6.4-23.9), total symptom severity (studies=8, n=1179, SMD=-0.32, 95%CI=-0.47, -0.17, p<0.001), positive symptoms (studies=10, n=1532, SMD=-0.22, 95%CI=-0.32, -0.13, p<0.001), negative symptoms (studies=10, n=1432, SMD=-0.28, 95%CI=-0.42, -0.14, p<0.001), general symptoms (studies=8, n=1118, SMD=-0.30, 95%CI=-0.47, -0.13, p=0.001), depressive symptoms (studies=5, n=874, SMD=-0.19, 95%CI=-0.35, -0.03, p=0.017), functioning (studies=7, n=1005, SMD=0.21, 95%CI=0.09-0.34, p=0.001), vocational rehabilitation (studies=6, n=1743, RR=1.13, 95%CI=1.03-1.24, p=0.012), and quality of life (studies=4, n=505, SMD=0.23, 95%CI=0.004-0.456, p=0.046). Superiority of CSC was evident at all time-points (short-term, medium-term, longer-term), but during follow-up after CSC discontinuation (studies=3).

Conclusions: There is clear evidence that CSC improves clinical and functional outcomes in young patients with psychosis. However, more follow-up studies are needed to evaluate the optimal treatment duration and the sustained benefit of CSC. Analysis on the cost-effectiveness (direct and indirect cost) are needed to allow for the implementation in public health care settings.



2902 - Quetiapine ER versus aripiprazole in children and adolescents with psychosis – the randomised, blinded clinical Tolerability and Efficacy of Antipsychotics (TEA) trial

MD, PhD Anne Katrine Pagsberg

Objectives: The evidence for choices between antipsychotics for youth with schizophrenia and other psychotic disorders is limited. We aimed to compare the benefits and harms of treatment with quetiapine extended release (ER) versus (vs) aripiprazole in youth aged 12-18 years with psychosis.

Methods: This blinded, independently funded, multi-centre trial randomised 113 youth with psychosis to 12 weeks (wks) treatment with target doses of quetiapine-ER=600 mg/day (n=55) vs aripiprazole=20 mg/day (n=58). Mean age=15.7 (SD=1.4) years; males=30%; schizophrenia/delusional disorders=93%; affective psychosis=7%; antipsychotic-naïve=50.4%. Primary outcome: Positive and Negative Syndrome Scale (PANSS)-positive score. Key adverse outcomes: body weight; homeostatic-model-of-insulin-resistance (HOMA-IR); akathisia; sedation. Mixed model analyses were applied to the intention-to-treat sample.

Results: We found no significant PANSS-positive score group difference after 12 wks (p=0.98), but a significant decrease over time (p<0.0001); adjusted mean change: quetiapine-ER=-5.05 (SD=5.46) vs aripiprazole=-6.21 (SD=5.42). Weight gain was more rapid with quetiapine-ER (p=0.0008). Adjusted mean weight group difference (wk-12)=3.33 (SD=7.23) kg, p<0.0001, effect-size=0.64. A significant HOMA-IR group difference favored aripiprazole; adjusted mean log-transformed HOMA-IR group difference (wk-12)=0.259 (SD=0.906), p=0.006, effect-size=0.35. Akathisia was more common with aripiprazole vs quetiapine-ER (p=0.0023), significant at wk-2: 63.5% versus 31.3% (p=0.002). Sedation was more common with aripiprazole (97.1%) vs quetiapine-ER (89.2%) (p=0.012). Exploratively, quetiapine-ER was superior on measures of global cognitive function, and aripiprazole on executive function. Aripiprazole had more neurologic, autonomic, and total adverse reactions, while quetiapine-ER showed more pronounced changes in metabolic variables.

Conclusion: This first trial comparing quetiapine vs aripiprazole for early-onset psychosis found no difference on PANSS-positive symptom change. Sedation and initial akathisia was more frequent with aripiprazole. Weight gain and insulin resistance were higher with quetiapine-ER. Additional analysis showed mixed results for cognitive outcomes, more neurologic/autonomic/total adverse reactions with aripiprazole, and increased metabolic variables with quetiapine-ER. Antipsychotic efficacy appeared limited and levels of adverse events were high for both drugs.



2905 - Metabolic adverse effects of quetiapine ER vs. aripiprazole in children and adolescents with psychosis the Tolerability and Efficacy of Antipsychotics (TEA) trial

MD, PhD Karsten Gjessing Jensen

#### **Objectives**

To investigate the cardiometabolic effects of quetiapine Extended Release (ER) vs. aripiprazole in youths with first-episode psychosis (FEP).

#### Methods

The tolerability and Efficacy of Antipsychotics (TEA) trial is an independently funded, multicenter, randomized, controlled trial (RCT), comparing beneficial and adverse effects of quetiapine ER vs. aripiprazole in 113 youths (aged 12-17 years) with FEP. Baseline metabolic data of patients were compared to those of 60 healthy youths, matched on age, sex and parents' level of education.

#### Results

Youths with FEP had significantly higher waist circumference (WC) and lipid abnormalities at baseline than matched healthy controls. Our results from the 12 week intervention period revealed statistically and clinically significant increases in weight, WC, body mass index (BMI), insulin resistance, plasma lipids and corrected QT interval during treatment with quetiapine ER, while aripiprazole was associated with smaller, yet still clinically relevant, increases in weight, BMI and WC.

#### Conclusions

In patients at risk for developing metabolic and/or cardiac adverse effects during antipsychotic treatment, aripiprazole should be considered as first choice.



### S03-14: What helps? New treatment strategies and prognostic factors in adolescent anorexia nervosa

### S03-14: What helps? New treatment strategies and prognostic factors in adolescent anorexia nervosa

Prof. Dr. Beate Herpertz-Dahlmann RWTH Aachen University Clinic

Anorexia nervosa (AN) is one of the most common chronic illnesses in adolescence with the highest mortality rates of all psychiatric disorders. In the present symposium four European experts in the field of eating disorders will present their experiences with new treatment methods as well as recent findings in outcome research.

Annemarie van Elburg, The Netherlands, will discuss how to build up an evidenced-based treatment program in AN when Family-Based Treatment is not possible. This will include outpatient treatment in private practice, in a hospital setting and criteria for admission to inpatient treatment.

Janet Treasure, UK, will present the process and outcomes from using interventions which give carers knowledge and skills to support change for patients with eating disorders across the age range.

Beate Herpertz-Dahlmann, Germany, will demonstrate that besides well-known prognostic variables such as BMI at beginning and end of treatment, treatment setting, e.g. day patient treatment, has an important influence on outcome even after 2.5 years

Elisabet Wentz and Maria Rastam, Sweden, will present the exciting results of a 30-year community based follow-up study of 47 adolescent individuals with AN in comparison to 51 matched healthy controls.

We think that our results are of relevance both for clinicians in hospital as well as in private practice.



### 2756 - How to build up an evidence based treatment program in Anorexia nervosa

Professor Annemarie van Elburg

While the evidence for treatment in young people with Anorexia Nervosa lies in Family Based Treatment, it seems rather hard for treatment teams to accomplish this type of treatment. We will describe how to set up and organize a mainly out-patient oriented treatment program for youngsters with Anorexia Nervosa, giving advice on what to do in a private practice, how to work with hospital (pediatric) settings, when to admit a patient and what to do when FBT seems not possible.



#### 2757 - Task sharing with the carers of people with eating disorders

**Professor Janet Treasure** 

Aim The aim of this paper is to describe the process and outcomes from using interventions which give carers knowledge and skills to support change for people with eating disorders across the age range. Background. The intervention is based on the cognitive interpersonal model of anorexia nervosa. This model holds that social emotional factors both predispose to eating disorders and maintain them through anomalies in interpersonal relationships that develop as a result of the ill state. Carers are involved and highly motivated to help but can be drawn into responding to the individual with high expressed emotion and accommodating to eating disorder behaviours. The experienced carers helping others (ECHO) intervention has been developed from co-production with carers and patients and includes self-management materials (books, videos) with various forms and levels of support. Method. After positive results in terms of carer change in several small, proof of principle studies, we undertook a pilot study with carers of people with severe enduring anorexia nervosa admitted for inpatient care. Carers randomised to have the intervention reduced their accommodating behaviours and time spent care giving. Also there were fewer readmissions in the 6 month following discharge and there were small but superior outcomes in most aspects of eating disorder psychopathology in the two years following discharge 1,2. In a similar study in which the intervention was given to the carers of adolescents referred for specialist outpatient care we found less engagement with the materials. Nevertheless there was a small improvement in carers' skills and key patient outcomes. This suggests that integrating task sharing interventions for carers can improve eating disorder outcomes.



### 2758 - Treatment setting matters - an evaluation of prognostic factors for outcome in adolescent anorexia nervosa after 2.5 years

Professor Beate Herpertz-Dahlmann

Introduction: There are conflicting results in research on prognostic parameters in treatment of anorexia nervosa (AN). This study investigates clinical characteristics potentially associated with outcome such as age at onset, duration of illness, subtype, parents` expressed emotions, BMI at admission and discharge, and duration of treatment. To our knowledge this is the first study to additionally explore the influence of treatment setting (inpatient (IP) or day patient (DP) setting).

Methods: Multicenter, randomized, open-label trial with 11-18 year old participants from six centers in Germany with first admission to hospital for AN. After 3 weeks of inpatient care, 172 patients were randomly assigned to either IP or DP with an identical treatment program in both settings. The primary outcome was the increase in BMI between admission and 2.5- year-follow-up. Secondary outcome was the time to relapse (readmission to hospital).

Results: Significant prognostic variables for BMI at 2.5 year follow-up were age at onset, BMI at admission and discharge and treatment setting, with an overall modest prognostic relevance ( $R^2$ =0.36). Duration of treatment and treatment setting were significant predictors of time to relapse ( $R^2$ =0.23).

Conclusion: This is the first study to show that besides well-known prognostic variables such as BMI at beginning and end of treatment, treatment setting has an important influence on outcome even after 2.5 years.



2759 - Teenage-onset anorexia nervosa 30 years later: general outcome, psychiatric health and quality of life

Professor Elisabet Wentz

Thirty years after teenage-onset anorexia nervosa (AN), at a mean age of 44 years, 47 individuals were followed up prospectively for the fourth time together with 51 matched comparison cases. The drop-out rate was 4 %, but there was no mortality. Twelve years had elapsed since the last examination and during that period one in three in the AN group had had an eating disorder (ED) and 17 % fulfilled an ED after 30 years. The AN group scored significantly lower on the outcome measures Morgan Russell averaged scale score and the GAF compared to the comparison group.



#### S03-15: SCHOOL DROPOUT: CAUSES AND MANAGEMENT

Prof. Dr. med. Norman Sartorius Association for the Improvement of Mental Health Programmes (AMH), Genf

Dropout from school may have serious negative consequences for the health and development of children of school-age. Interventions which clarify reasons for absenteeism from school and provide advice and help are therefore of great importance.

The symposium will summarize the findings of research on school absenteeism, discuss mechanisms which may lead to school dropout and provide specific suggestions about the management of problems related to school dropout.



### 4065 - School absenteeism an overview of the literature and indications for future research

Prof. Dr. Giovanni de Girolamo IRCCS Centro S.Giovanni di Dio Fatebenefratelli

Background: School Absenteeism (SA) is a complex worldwide public health concern, with a significant impact on both individuals and society. SA should be understood as a continuum of school engagement ranging between full engagement to academic dropout (Tanner-Smith & Wilson, 2013; Battin-Pearson et al, 2000). The aim of this presentation is to highlight the main results of the studies conducted in this area and point to the most promising areas of future research.

Method: We have conducted a systematic review using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. Systematic searches located studies reporting estimates of SA prevalence and risk factors.

Results: Reliable and consistent prevalence data about short term and persistent SA cannot be compared or meta-analysed readily because of differences in how data are conceptualized. However, there are some national data which highlight the magnitude of the problem. In Norway, 14.3% of students in upper-secondary school were persistent absentees (missing >10% of school hours) (Askeland et al, 2015). In England, persistent absentees (≥10% of missed sessions) were 8.4% during primary school and 13.8% in secondary school, and similar estimates have been found in Sweden and in Germany. SA is influenced by an array of adversities and modulating factors relating to social environment, family and friends, schools and communities (Rumberger, 2011), as well as challenging individual experiences (Kearney, 2008). Parental involvement is key to children's attendance.

Discussion: SA is an important problem due to its association with short and long term physical and mental health problems, as well as a range of unfavorable economic and social outcomes in adulthood.



#### 4066 - Psychopathological mechanisms underlying school dropout

Dr. Benedetto Vitiello Child & Adolescent Neuropsychiatry

Objectives: Multiple factors can contribute to school dropout, including socioeconomic adversity and psychopathology. While these domains of risk are not mutually exclusive and can be codependent, the aim of this presentation is to review and discuss psychopathological contributors to school dropout as a step toward identifying effective preventive interventions.

Methods: A review of the most recent data on risk factors and mechanisms of school dropout.

Results: There are two major pathways to school dropout: one through disruptive behavior disorders and the other through anxiety and mood disorders. The former manifests with symptoms of hyperactivity, impulsivity, oppositional and defiant behavior, conduct disorder, and early alcohol and substance abuse. The latter is linked to extreme social anxiety with school avoidance and, at times, depression. Both these trajectories have roots in early manifestations of behavior and emotional disturbance, and could be sensitive to early preventive intervention. A third, less prevalent but clinically important, trajectory is linked to early onset psychosis with associated cognitive and social dysfunction.

Conclusions: Diverse can be the psychopathological mechanisms behind school dropout. Early identification of risk factors and intervention offer preventive opportunities.



### 4067 - The treatment of school avoidance in children and adolescents with psychiatric illness

Professor Dr. Johannes Hebebrand University of Duisburg-Essen

Background: 5–10% of school children in Germany are absent from school without an excuse more than five times per year. We investigate the effectiveness of manual-based, multimodal cognitive behavioral therapy focusing on school-avoidant behavior and on the underlying mental disorders.

Methods: 112 school avoiders were recruited from an outpatient child and adolescent psychiatric clinic and adaptively randomized into two treatment groups. The first group received manual-based multimodal treatment (MT), the second group treatment as usual (TAU) in the child and adolescent mental health care system. The primary outcome of the study was the percentage of classes attended in the five days prior to first measurement (before the intervention), as well as 6 and 12 months afterward. In each of these periods, school attendance was characterized as regular, partial, or none. Secondary outcomes were the severity of anxiety and depressive symptoms, self-efficacy, and quality of family life.

Results: In both treatment arms, the percentage of regular school attenders rose to about 60% in 6 months, regardless of the intervention (MT 60.6%, TAU 58.3%; odds ratio [OR] for changes over baseline 6.94, 95% confidence interval [CI] 3.98–12.12, p<0.001; OR for MT versus TAU 1.05, 95% CI 0.58–1.90, p=0.875). The improvement persisted 12 months after inclusion. Conclusion: In accordance with earlier studies, we found that manual-based multimodal treatment did not improve school avoidance to any greater extent than treatment as usual. Future studies should focus on the conditions for successful reintegration in school and on the differential indicators for outpatient versus inpatient treatment.



#### 4412 - Intervention of mobile team for school refusal

PD Dr. Laurent Holzer Service Universitaire de Psychiatrie de l'Enfant et de l'Adolescent (SUPEA)

School refusal is a common concern for all pupils and may have deleterious consequences for long terme mental health. In Switzerland, almost 5% of pupils do not attend school on a regular basis, half oft them for psychiatric reasons. Delayed identifications of cases by schools, banalisation and tolerance of school absenteism by parents or professionals contribute to delay appropriate care for school refusal. As prognosis worsens with the duration of school absenteism, and as duration time necessary for obtaining normal school attendance (i.e. > 90% of time) is roughly equal as the duration of school absenteism itself, we consider that school refusal is an emergency and needs early identification and intervention. Child and Adolescents Mobile Teams are relevant for that purpose and may facilitate the whole process by 1) facilitating identification of cases with close collaboration with schools, pediatricians and GP, 2) assessing school refusal behavior according to Kearney and Albano categories orienting treatment options, 3) prompt initiation of treatment including school accompaniment, 4) parental guidance and support 5) interdisciplinary coordination with school, social services, psychiatric services and parents. A step by step strategy has been developed in the Lausanne Catchment Area, starting by outpatient consultations and followed by rapid intervention of the mobile team, and completed by day care or inpatient hospitalization measures if needed, social services or legal interventions which may have potential leverage effects.



### **S03-16: ESCAP Workgroup on Gender Issues**

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Cecil Prins-Aardema

The ESCAP workgroup works with the IACAPAP workgroup on Gender. This workgroup focuses on different aspects of gender we encounter in our clinical practice in Europe.



#### **S03-16: ESCAP Workgroup on Gender Issues**

#### 3341 - ESCAP workgroup on Gender Issues

Cecil Prins-Aardema

The ESCAP workgroup works with the IACAPAP workgroup on Gender. This workgroup focuses on different aspects of gender we encounter in our clinical practice in Europe.

According to the World Health Organisation (WHO):

"Gender refers to the socially constructed characteristics of women and men - such as norms, roles and relationships of and between groups of women and man. It varies from society to society and can be changed."

In this workgroup we will discuss:

1. Gender issues for Mental Health professionals: Family planning for trainees/ Gender ratio among CAMH professionals.

We will discuss how to coordinate family responsibilities and professional training, noting differences and similarities around the world. The key question: how hard is it to have a family before you reach your PhD/MD or complete training? Regarding gender-based differences in practice, does having a female or male clinician affect the outcomes of care? After brainstorming, we will identify relevant hypotheses and how we can form a European consortium to test them.

2. LGBTQIA: Public debate and acceptance, legal rights, clinical presentations.

We will consider the rapidly changing public and professional discussion of sexual and gender differences. We will review data emerging from systematic studies of youths who have dysphoria or are transitioning. We will identify future activities of the Workgroup, including disseminating new data and practice guidelines among member societies and advocating for disadvantaged populations.

3. Gender issues in (post)conflict areas: Sexual health for refugees, gender-based violence.

We will review the prevalence of gender-based violence and of sexually related disease among refugee populations, based on clinical work in Europe. We will consider the disparity in supports available across Europe. The Workgroup will discuss goals for advocacy, health promotion, and clinical services.

After the presentations each gender issue will be discussed by all attendees. Attendees are invited to share their clinical impressions around these issues. We will reflect on the influence of culture, society and the public debate in the presentation of the gender issues.

The last 15 minutes of this workgroup will be used to summarize the agenda for the ESCAP workgroup for the coming years.



#### S03-19: Symposium "Child and murder"

S03-19: Symposium "Child and murder"

Dr. Alfons Crijnen de Waag Forensic Services

Witnessing the murder of your parent — unthinkable, but it overcomes some children. Which response is to be expected? How will the child respond on treatment? These and other questions are dealt with in this symposium.



#### S03-19: Symposium "Child and murder"

#### 3514 - Child and Murder

Dr. Alfons Crijnen de Waag Forensic Services

Topic: What if a child is witness of the murder of his parents? Is a child able to speak about it? What if the child doesn't tell you anything – did it really see nothing? What if the child shares his experience with you – is this really helpful or will this be counterproductive? What if the child dares to confront itself with the recollection in therapy?

At the moment itself or in the months following the murder, therapists are confronted with these and other questions. Feelings of intense anxiety and anger are in the way of sorrow and grief; recollections are so overwhelming that they can't be shared; the life of the child is disorganised and there is often disturbed mourning.

In the professional treatment of children who witnessed the murder of their parent the following issues are recognized: disclosure and recognition, the management of stress and intense emotions, the development of psychopathology, the impact on the family, therapeutic interventions and treatment, and finally mourning.

In the workshop video clips of interviews of two 4- and 10-year-old children by a police officer directly after the murder and by a child and adolescent psychiatrist seeing the children for diagnosis and treatment at three months and three years after the murder will be shown. Theory and practice will be brought together and guidelines for treatment provided.

#### Format:

This symposium will take the form of a workshop in which

- 10 video clips of interviews between two children and a police officer and child psychiatrist treating these children over a period of 4 years are shown;
- questions and discussion will be raised about which response is to be expected, which techniques can be used;
- instructions are given regarding interviewing techniques, treatment opportunities regarding anxiety, anger, and mourning.

This symposium lasts 90 minutes and will be given in English.

#### Learning objectives:

- To understand the emotional response with anxiety, anger and grief of children after intense trauma
- To understand the medical interviewing techniques facilitating disclosure and emotional recognition and the therapeutic procedures and their impact on the child
- To understand the key importance of mourning and how this is disturbed by the traumatic response.



#### **Reading Georges Perec**

MD, PhD Maurice Corcos

Head of the Department of Psychiatry for Adolescents and Young Adults, Institut Mutualiste Montsouris

Reading Georges Perec so often, and aloud, as if drause by his written voice, absorbing his rage and need for love, I ended up paying no more attentive to the meaning of the intrigues proposed to attach myself to the writing itself, its forme. Style rather than fable ... feel rather judging ... looking after him rather than me. In the play of rhythmic scansions and syncopations, in the articulations of sonorities and sounds of speech, in the white silences placed between brackets and the cold rage in quotes, I thought then to hear a music of silence, a sad chant vocalising the phantom presence of his mother - and sometimes, even more rarely, by lending his ear better, the song of two beings.

Roland Barthes wrote: "The objective of reading aloud is not in the clarity of messages, the theater of emotions; What it seeks ... it is the instinctual incidents, it is the language covered with skin, a text in which one can hear the grain of the throat, the patina of consonants, the voluptuousness of vowels, a whole stereophony of The deep flesh".

More than others, The Disappearance is a book that is important to read aloud. This novel is what is called a lipogram, meaning that a letter is missing. Perec realized the feat of writing a novel of 280 pages, without ever appearing the letter e, the most frequently used in the French language.

But we can also understand this constraint in a more tragic way. The letter e perhaps represents the mother of Perec or his parents or the Jews exterminated by Nazism. The company then takes on a new meaning: to try to construct a text that has a meaning after their disappearance, to them.

But we also find in this text violence, crimes, rape .... murders take place one another at a steady pace ... the dead instantly leave the world without delivering the slightest message in some sort of agony? This violence without emotion is to be compared to the calm cruelty, we sometimes encounter in the tales for children. But most of all, one hears the strange music of this crazy language.

It is a music resembling a forgotten foreign language, perhaps his mother's who no doubt spoke Yiddish better than French and whose Perec says that he has no memory: Perec's musical writing Always oscillates between a babble and a moan. Sometimes, miracle ... She is a nursery rhyme...

Perec's mother's name was Cyrla and she was called Cecile, and Perec always remembered that Sainte Cécile was the patroness of music.



"Let's just say that I am writing it out of penitence": Gide remembers

Naomi Segal

On 24 July 1950, seven months before he died, André Gide made the acquaintance

Of a word that denotes a state I have been suffering from for the last few months — a very fine word: anorexia. [...] It means the absence of appetite ('not to be confused with distaste', Littré insists). The term is used by hardly anyone except doctors — never mind: it is useful to me. To say I suffer from anorexia would be exaggerating: the worst of it is, I hardly suffer any more from it, but my physical and intellectual lack of appetite is such that I no longer know how I stay alive except by force of habit. Don't imagine that what I have just said is written out of despair — rather, it expresses satisfaction.1.

Let us begin by noting two paradoxes here. First, the 'satisfaction' Gide gets out of this lack of desire: this is as much of a reversal of meaning as the opening pages of his memoir Si le Grain ne meurt [If it die] (1926). Second, the fact that in that memoir he recounts this memory: "I ate little, I slept badly [...]".I really had no taste for anything; I went to the table like a condemned man to the scaffold; I would swallow a few mouthfuls only by dint of great efforts; my mother would plead, scold or threaten, and almost every mealtime ended in tears]. This is a precise representation of what we now call anorexia – Gide was an anorexic before he had even heard the term. How then are we to read the recollections of his body in Si le Grain ne meurt?

On the first page of the memoir, we find the following scene – shocking or endearing, as you prefer:

I can [...] see a fairly big table, the dining-room table no doubt, with its cloth reaching nearly to the ground; I would crawl underneath it with the concierge's son, an infant of my age who sometimes came to play with me.

'What are you two up to down there?' my nursemaid would call out.

'Nothing. We're playing'.

And we would make a lot of noise with the few toys that we had taken with us for the sake of appearances. Actually we were enjoying ourselves in a different way: one beside the other, though not one with the other, we were enjoying what I later learned were called 'bad habits'.

He goes on: "I realize of course the harm I am doing myself by relating this and other things that follow; I foresee how they may turn my reader against me. But the whole point in telling my story is to be truthful. Let's just say that I am writing it out of penitence".

This autobiography is a heliotropic text: it traces a progression from a childhood full of "darkness, ugliness and deceit" into glorious sunshine – though exactly where this teleology tends is not really clear, for light seems to dawn twice: once, in the sunlit moment of revelation of the first pederastic encounter, on a North African beach, where "now at last I found my

normality": "in the glorious splendour of the evening, how my joy was clothed in its rays!", and later in the ambiguous but equally splendid moment when, "dazzled by the azure light", the young André becomes engaged to his cousin Emmanuèle. In this paper I shall examine this dual tendency and multiplicity of paradoxes, looking in particular at the ways Gide recalls his body in childhood and adolescence and the ways in which we can read him.



### A journey with George Bataille in adolescents' sexuality: or the mother's flesh

PhD Mohamed Amine Benjelloun

Daily and naive clinical cases of sexual awakening — or a renewed wakefulness to sexuality-but also to eroticism, lead us to revisit with adolescents what would be a red thread, monumental and eclectic, of George Bataille's work, the dialectic of the forbidden and transgression. Without the transgression resulting from a deeply buried original drive force that is neither a moral or immoral instinct, life becomes inexistent; without prohibitions, the world collapses. Eroticism, which is shared pleasure, exchange and reciprocity, should be considered within a framework of rules, prohibitions even, which would model an instinctual life; not without a certain amount of anguish omnipresent throughout the author's work, a certain "malaise, secret of the greatest pleasures".

"My mother", a posthumous novel (published in 1966, four years after George Bataille's death), is the story of a mother's relationship with her son, Pierre, 17, the day after his father's death, violent, alcoholic, hated. Debauchery, perdition, orgy, perversion of the mother (and Pierre?), unavowable incestuous desire, sexual relations experienced in a quasi-psychotic mode so much "it is true that on two occasions at least we have allowed the delirium to bind us more deeply And more indefensibly than carnal union could have done." For Bataille, this is the example of eroticization pushed to its extreme, the non "passage a l'acte" in a tormented and maddening chastity.

And of course, there is laughter, another keystone of the work of Georges Bataille since its beginnings around 1922; a revelation, an irony, a shaking, "a knowledge of the depths of the worlds," a suspended time in which the word can not express emotion, an outside world which not far from denying death, recalls and affirms it, and at the same time absolves (here incestuous desire).

The almost unspeakable childhood of Georges Bataille with a blind father and neuro-syphilitic dementia, abandoned in his paralytic chair by the family during the capture of Rouen by the Germans in 1914, found dead in 1915; a probably melancholic mother with at least two known suicide attempts; an adolescence marked by the encounter with and then the renunciation with religion; those are as many prisms through which one can read and understand "My mother."



#### THE DUTY TO IMAGINE. On « The Son of SAUL » by LÁSZLO NEMES

Dr Alejandro Rojas-Urrego Fondation de Nant

Some psychic traumas, ever present in the clinical field of adolescence, confront us with feelings of impotence. We often think of these in terms of archaic experiences qualified with terms such as "unimaginable", "unthinkable" and even "non representable".

Without denying the radical essence of these experiences, we will reflect on what could be considered our "duty" as analysts and psychotherapists is in the clinical study of these difficult cases: the duty to imagine what is unimaginable to the patient, of attempting to think what to him results unthinkable, to dare represent what to him results non representable in these precocious experiences that the failing process of adolescence often sheds light on. Facing these "off time" states of psychical sideration, agonistic experiences lacking representation, experiences one cannot grasp and which cannot be bound together, we must fight the evaporation of traces and images, as well as the formless, the invisibility and the risk of disappearance.

Of it depends the possibility of succeeding at making such experiences human, insofar as the subject precisely defines them through a sentiment of psychic annihilation and the painful feeling of losing his own humanity.

If one has the goal of shaping what has no shape, of understanding what feels as unimaginable, one must thus first allow oneself to imagine and recuse the argument of the unmentionable, the infigurable and the unimaginable.

To face the "formless" (D.W. Winnicott); to face the "clinic of the extreme" (R. Roussillon); to affront the "terror of existing" (M. Corcos); "imagining the unimaginable trauma" as the role of the analyst (P. Fédida); "imagine despite everything" (G. Didi-Huberman).

Such a clinic confronts us not only with the need to imagine, but also with the duty to imagine, and by imagining, with the possibility of constructions.

Through an interpretation of the movie "Son of Saul" from Lazlo Nemes, we attempt to introduce elements that allow us to reconstruct and construct an experience of humanity, through past experiences of psychical annihilation and dehumanization.



#### LOL V. Stein or the fantasy one conquered

Prof. Dr. Veronique Delvenne HUDERF

Marguerite Duras hated psychology, she only delivered scum, dialogue or soliloquy (La Pléiade).

Written very quickly without knowing how she do it, in parallel to other books, Lol. V. Stein is considered as one of her masterpiece, the most enigmatic, the most phantasmagoric. Coming from the depths of her being, in nearly automatic writing, at a moment she is confronted to her demons and her midlife crisis. Confronted with her son's difficult adolescence and her own problem of dependence, she delivers one of her most romantic works, a true ode to impossible or misunderstood love.

In face of her imaginary world so narrated, the psy, and even Lacan in person, must delete, always preceded by the artist. Jean's enigma in regard to Lol, Lol watching this woman dancing with the man she loves is consider as a disorder of the duality, of the subjectivity, from the Self to the other, in order to try to find our self with the risk to become mad to try see the love of our love.



#### S04-01: Socioeconomic disparities in youth mental health and substance use

Dr Maria Melchior

Youths growing up in disadvantaged families are at risk of experiencing behavioral and psychological problems and may respond less well to therapeutic interventions than those who are from more favorable backgrounds. Additionally, the experience of mental health or substance-related difficulties in adolescence, can impact educational attainement and adult socioeoconomic standing. To illustrate the complex relation between socioeconomic position and mental health and substance use, this symposium will rely on four presentations. First, data from France will show the elevated levels of behavioral and psychological difficulties in youths growing up homeless. Second, a study based in the Netherlands, will show that the efficacy of Youth Initiated Mentoring varies depending on background socioeconomic circumstances. Finally, data from the longitudinal TEMPO study based in France will show that cannabis use in adolescence is a cause of educational failure and that the experience of food insecurity is tightly related to mental health and substance use problems in young adults. Overall, this symposium will show that the relationship between socioeconomic factors and mental health in youth is bidirectional, and research in this area should be taken into account in the design of interventions aimed at supporting high-risk and community youths.



# 2857 - Emotional and behavioral difficulties in children growing up homeless in the Paris region.

Mathilde Roze

Background: The number of persons who are homeless has increased in recent years in many European countries. Children growing up in homeless families are disproportionately more likely to experience health and psychological problems. Our objective was to describe social, environmental, individual and family characteristics associated with emotional and behavioral difficulties among homeless children living in the Paris region.

Methods: Face-to-face interviews with a representative sample of homeless families were conducted by bilingual psychologists and interviewers between January and May 2013 (n=343 children ages 4-13 years). Mothers reported children's emotional and behavioral difficulties (Strength and Difficulties Questionnaire - SDQ), family socio-demographic characteristics, residential mobility, and parents' and children's physical and mental health. Children were interviewed regarding their perception of their living arrangements, friendships and school experiences. We studied children's SDQ total score in a linear regression framework. Results: Homeless children had higher SDQ total scores than children in the general population of France (mean total score =11.3 vs 8.9, p<0,001). In multivariate analyses, children's difficulties were associated with parents' region of birth (beta=1.74 for Sub-Saharan Africa, beta=0.60 for Eastern Europe, beta=3.22 for other countries, p=0.020), residential mobility (beta=0.22, p=0.012), children's health (beta=3.49, p<0.001) and overweight (beta=2.14, p=0.007), the child's sleeping habits (beta=2.82, p=0.002), the mother's suicide risk (beta=4.13, p<0.001), the child's dislike of the family's accommodation (beta=3.59, p<0.001) and the child's experience of bullying (beta=3.21, p=0.002).

Conclusions: Children growing up in homeless families experience high levels of emotional and behavioral difficulties, in part in relation to their mothers' mental health difficulties and their family's difficult living conditions. These psychological difficulties can put them at risk for poor mental health and educational outcomes long-term. Improvements in access to appropriate screening and medical care, as well as awareness of the role of children's social and school integration with regard to their emotional and behavioral difficulties could improve their long-term educational and health outcomes.



# 2858 - Youth Initiated Mentors: do they offer an alternative for out-of-home placement in youth care?

Levi van Dam

Objectives: Professional care for juveniles with complex needs, who may be at risk for out-of-home placement, often lacks continuity. Research suggests that at least one person should provide continuity for these juveniles and help them to express their needs. Given the instability that youth with complex needs experience in their own family – due to disturbed relationships – the search for 'arenas of comfort' is urgent, particularly during adolescence. An arena of comfort is a soothing and accepting context or a supportive relationship that gives the juvenile the chance to relax and rejuvenate, so that potentially stressful experiences and changes in another arena can be endured or mastered. The YIM approach focuses on strengthening the juvenile's (12-23) network through collaboration with an informal mentor, a Youth Initiated Mentor (YIM). This informal mentor is a person (e.g., relative, neighbour, or friend) adolescents nominate from their own network, and who functions as a confidant and spokesman for the adolescent and a cooperation partner for parents and professionals. This YIM approach is a systemic treatment approach in which access, mobilisation and consultation of informal mentors is a central aspect. The approach fits with the international tendency in child and family social work to make use of the strengths of families their own networks and to stimulate client participation.

Methods: The current study examined through case-file analysis of 200 adolescents (YIM group n = 96, residential comparison group n = 104) whether the YIM approach would be a promising alternative for out-of-home placement of youth with complex needs.

Results: A total of 83% of the juveniles in the YIM group were able to nominate a mentor after on average 33 days. Most youth (44%) selected a family member as informal mentor. Professionals reported that the youth initiated mentors primarily offered social emotional support. Ninety percent of the adolescents in the YIM group received ambulatory treatment as an alternative for indicated out-of-home-placement, while their problems were largely comparable with those of juveniles in Dutch semi-secure residential care.

Conclusion: Results suggest that the involvement of important non-parental adults may help to prevent out-of-home placement of adolescents with complex needs.



# 2859 - Early cannabis initiation causes low educational attainment: data from the French TEMPO study.

Maria Melchior

Background: Adolescent cannabis use has been reported to predict later educational attainment, however results of past studies may be confounded by inappropriate control for factors that make some youths more likely to use cannabis precociously than others. We aimed to test the possibility of a causal relationship between early cannabis initiation and later academic achievement using the Inverse Probability Weights (IPWs) statistical approach which mimics random allocation of exposure.

Methods: Analyses are based on data collected among TEMPO cohort study participants (France, 2009, n=1,103, 22-35 years). Participants were previously assessed in childhood (1991) and adolescence (1999); additionally their parents take part in a longitudinal epidemiological cohort study (GAZEL). Early cannabis initiation was defined as use at age 16 or earlier. Educational attainment was defined as the completion of a high school degree ('Baccalauréat'). Early (<=16 years) and late (>16 years) cannabis use initiators were compared to non-users using logistic regression models controlled for IPWs of exposure calculated based on participants' sociodemographic, juvenile, and parental characteristics.

Results: In age and sex-adjusted analyses, early cannabis initiators were more likely than non-users to have low educational attainment (OR: 1.77, 95% CI 1.22-2.55). In IPWs-controlled analyses, this association somewhat decreased (OR: 1.64, 95% CI 1.13-2.40). Late cannabis initiators did not have lower educational attainment than non-users. Early cannabis use and educational attainment appeared more strongly associated in young women than in young men. Conclusions: Early cannabis can cause low educational attainment. Youths who initiate cannabis use early require attention from addiction and education specialists to reduce their odds of poor long-term outcomes.



2860 - Association between food insecurity and mental health among a community sample of young adults in France.

Laura Pryor

Objectives: Food insecurity is associated with anxiety and depression, however the association with other psychiatric disorders is not well known, particularly among young adults. This work examines the links between food insecurity and four common mental health problems among a community sample of young adults in France.

Methods: Data are from the TEMPO longitudinal cohort study. In 1991, participants' parents provided information on health and family socioeconomic characteristics. In 2011, participants' (18-35 years) reported food insecurity, mental health symptoms, and socioeconomic conditions (n=1214). Mental health problems ascertained included major depressive episode, suicidal ideation, attention deficit and hyperactivity disorder, and substance abuse and/or dependence (nicotine, alcohol and cannabis). In 2014, 675 participants again reported their substance use problems. Cross-sectional associations between food insecurity and mental health problems were tested using modified Poisson regressions, weighted by inverse probability weights (IPW) of exposure. This makes food-insecure and not food-insecure participants comparable on all characteristics including socioeconomic factors and past mental health problems. Longitudinal associations (2011 to 2014) between food insecurity and substance use problems are currently being examined by way of cross-lag panel models in the Mplus program. We expect to identify significant bidirectional links (i.e: that food insecurity will predict subsequent mental health problems, and that mental health problems will predict subsequent food insecurity during young adulthood).

Results: 8.5% of young adults were food insecure. In IPW-controlled analyses, food insecurity was significantly associated with increased levels of depression (RR= 2.01, 95% CI 1.01-4.02), suicidal ideation (RR= 3.23, 95% CI 1.55-6.75) and substance use problems (RR=1.68, 95% CI 1.15-2.46). A significant cross-lagged link has thus far been identified between nicotine dependence in 2011 and food insecurity in 2014.

Conclusions: Food insecurity co-occurs with depression, suicidal ideation and substance use problems in young adulthood. Reductions in food insecurity during this critical life period could help prevent mental health problems. Policies aiming to alleviate food insecurity should also address individuals' psychiatric problems, to prevent a lifelong vicious circle of poor mental health and low socioeconomic attainment.



# S04-02: Between Borderline Behavior and Borderline Personality Disorder: Diagnostic and Treatment Studies of Severely Disturbed Adolescents

S04-02: Between Borderline Behavior and Borderline Personality Disorder: Diagnostic and Treatment Studies of Severely Disturbed Adolescents

Prof. Dr. Annette Streeck-Fischer International Psychoanalytic University Berlin

Adolescence as a time of bio-psychosocial transition confronts psychiatrists and psychotherapists with difficulties in diagnostics, crisis interventions and treatment especially with severely disturbed young persons. The diagnosis of Borderline Personality Disorder in adolescence has been avoided for years in order not to stigmatize adolescents. It was assumed that in adolescence it is difficult to differ between pathology and normality or borderline behavior and borderline disorder. Using a dimensional approach might now-a-day give a helpful orientation for the diagnosis of a Borderline Personality Disorder. The same is the case with identity diffusion as indicator. Further research is needed for the development of concepts of crisis intervention and psychotherapy of adolescents with Borderline Personality Disorder. Only few evaluated therapeutic studies of borderline treatment exist until today other than in treatment of adults. Experiences with Interventions in natural environments promoted by mobile units will be discussed. Furthermore special treatment concepts are necessary for severely disturbed adolescents with regard to their instable psychic state and instable life conditions. A psychodynamic therapeutic approach called PIM will be presented; the effectiveness of the method was shown in an inpatient RCT Study. Instead of taking the role of an expert the therapist acts as a resonant person expressing his experience in an answering mode in a symmetric relationship with the patient.



#### S04-02: Between Borderline Behavior and Borderline Personality Disorder: Diagnostic and Treatment Studies of Severely Disturbed Adolescents

2723 - Diagnostic stability of borderline personality disorder symptomatology from adolescence to young adulthood: results from a three-year naturalistic longitudinal study.

Prof. Dr. Mario Speranza Head of the Department of Child and Adolescent Psychiatry. Versailles General Hospital

Background: The diagnosis of borderline personality disorder (BPD) in adolescence has been a topic of debate in recent years with controversial reports concerning its validity and its stability over time. Objective: The aim of this study was to investigate the diagnostic stability of BPD from adolescence into young adulthood. Methods: A sub-sample of 30 female BPD adolescents (mean age = 16.3; SD = 1.4) issued from the European Research Network on BPD (EURNET BPD) were reassessed after a three-years follow-up using the BPD section of the Structured Interview for DSM-IV Personality Disorders (SIDP-IV), the Adolescent Depression Rating Scale (ADRS) and the Global Assessment Functioning scale (GAF). Results: The mean score of the sample on the BPD section of the SIDP-IV was 10 (DS +/-4.6) with a range between 2 and 16. According to the diagnostic cut-off of 15, only 20% of the initial sample fulfilled the diagnostic criteria for BPD in adulthood. However, half of the subjects presented high levels of BPD symptoms. Moreover, 61% of the subjects showed above cut-off scores for depression (ADRS) and 30% presented a low level of global functioning. Conclusions: If the categorical stability of BPD disorders between adolescence and young adulthood seems weak, a greater stability can be observed using a dimensional approach. Acknowledgments: This research was funded by grants from the Pfizer Foundation for Child and Adolescents Health & by the Lilly Foundation. The work was performed as part of the European Research Network on Borderline Personality Disorders (EURNET BPD).



# S04-02: Between Borderline Behavior and Borderline Personality Disorder: Diagnostic and Treatment Studies of Severely Disturbed Adolescents

### 2725 - From Identity Confusion to Personality disorders among Turkish Adolescents'

Prof. Dr. Fusun Cuhadaroglu Hacettepe Univ. Faculty of Medicine

#### Aim:

The aim of this study isto investigate the identity development in Turkish adolescents, to determine the prevalence and factors related to identity confusion and to analyse the relation between identity confusion and personality disorders.

Method:

AIDA-Turkey (Assessment of

Identity Development in Adolescence –AIDA- adapted for Turkish adolescents), Identity Status Assessment Form, The Schedule for Affective Disorders and Schizophrenia for School Age Children Present and Life Time Version (K-SADS-PL) and Structured Clinical Interview for DSM-III-R Personality Disorders

(SCID-II)

were given to a clinical sample of

adolescents to determine the characteristics of the identity development, identity confusion and possible personality disorders.

Clinical

data are compared to the data of a sample of high school students who were again evaluated by AIDA-Turkey.

Results:

Age range is 12-18 years. The data is

analysed by using SPSS. The results will be discussed in the light of other AIDA literature and the factors which are found related to the development of personality disorders will be discussed. Keywords: AIDA, adolescence, identity, identity crisis, identity confusion, identity diffusion, personality disorders, identity scale I hope very much that it is possible like this because i was unable to make some changings.

Thank you and best wishes

Annette Streeck-Fischer



#### S04-02: Between Borderline Behavior and Borderline Personality Disorder: Diagnostic and Treatment Studies of Severely Disturbed Adolescents

### 2726 - New mental health policy for children and adolescent in Belgium: Crisis intervention

Prof. Dr. Veronique Delvenne Hôpital Universitaire des Enfants Reine Fabiola

Psychiatric hospitalization of adolescents has always been last resort when no more ambulatory solution can be proposed and when no other therapeutic space is available anymore. However, for public health system, full time hospitalization are expensive and they try, actually, to reduce health expenditure.

In addition, these specific child and adolescent units can also have an iatrogenic effect such as increasing acting out, suicidal conduct or self-aggressive behaviors. In addition, in-patient units have insufficient supply of care and non-integrated operation of ambulatory and hospital care, taking into account the family and environment.

So, Belgium has adopted a new politics for child and adolescent mental health that promotes mobile units in crisis and assertive situations.

Crisis interventions are first evaluate in the natural environment of the youth (family, school, institution). If necessary, a short time of hospitalization of 5 days in crisis bed is proposed and a collaborative work is proposed between all stakeholders.

We will present the first evaluations of that project.



#### S04-02: Between Borderline Behavior and Borderline Personality Disorder: Diagnostic and Treatment Studies of Severely Disturbed Adolescents

### 2728 - Psychodynamic-interactional-method for adolescents with personality pathology

Prof. Dr. Annette Streeck-Fischer International Psyhoanalytic University

Background: Comorbid disorders of conduct and emotions can be regarded as childhood antecedents for manifestations of personality disorders in adulthood. A manualized psychodynamic therapy (called PIM) for adolescents with these comorbid disorders has been developed.

Methods: The psychoanalytic-interactional method (PIM) is a modified psychodynamic approach designed specifically for patients with developmental personality disorders. Patients especially in in-patient treatment often show trauma-related symptoms, pathological internalized objectrelations and disturbances of ego functions (e.g., reality testing, impulse regulation, affect perception and differentiation, tension tolerance)

The treatment concept comprises three stages: first, emphasis is placed on establishing a stable and secure relationship between the therapist and adolescent and precise framework conditions. If necessary, special arrangements and de-escalation procedures are defined to prevent destructive acting out (e.g., suicidal and self-harming behaviors and violence against others). In cases of serious impulse control difficulties, psychopharmacological treatment is used temporarily to prevent premature discharge. The second stage is concerned with working on the main relationship problems and the adolescent's structural deficits as described earlier. The third stage is characterized by increasing testing of the patient's ability to cope with everyday life and by finding a decision concerning life after in-patient treatment. Reaching this stage can be regarded as a precondition for the finalization of treatment.

Results: The sample consisted of severely impaired adolescents with high rates of further comorbid disorders and academic failure. Patients in the treatment group had a significantly higher rate of remission (p<0.001; OR=26.41; 95% CI: 6.42-108.55). The scores of patients treated with PiM were post-treatment no longer significantly different from normative data on the GSI and within the normal range on the SDQ. The effects in the treatment group were stable at follow-up. Furthermore, most patients were re-integrated into educational processes. Positive results are also referred to the structural development and capacity of mentalization.. Treatment steps are demonstrated.

Conclusions: The PDT led to remarkable improvement and furthered necessary preconditions for long-term stabilization. An outpatient trial is being started.



#### S04-03: Diagnosing and staging in adolescent borderline personality disorder

Prof. Michael Kaess Universi of Heidelberg

Despite longstanding general agreement that personality disorders have their roots in childhood and adolescence, diagnosing borderline personality disorder (BPD) prior to age 18 years has been controversial. To date, there is increasing evidence in support of both diagnosing and treating BPD in adolescence. Thus, national treatment guidelines, Section 3 of the new DSM-5, and the proposed ICD-11 personality disorder classification have all recently confirmed the legitimacy of the BPD diagnosis in adolescents.

In order to prevent chronicity and poor psychosocial outcomes of severe mental disorders, early intervention and maybe even indicated prevention seem to have clear advantages. Nonetheless, early detection, diagnosis, classification and staging of early BPD represent major challenges, particularly in the light of emerging dimensional models of personality disorder, new diagnosis of "nonsuicidal self-injury" and "suicidal behavior disorder", and a common hesitation among practitioners to stigmatize their patients with a categorical diagnosis of BPD. The symposium will present latest research findings on the diagnosis and staging of early BPD. New diagnostic concepts (e.g. from section 3 of the DSM-5) and methodological approaches (e.g. neuroimaging or ecological momentary assessment) will give new insights into the topic, and will inform clinical practice in order to facilitate early detection and intervention of BPD. The symposium is part of the Global Alliance for Prevention and Early Intervention for BPD.



#### 3210 - Early detection of disturbed personality functioning in adolescents

Prof. Dr. Klaus Schmeck

Objective: Early detection of disturbed personality functioning in adolescents requires reliable and valid assessment instruments that are developed or adapted for this age group. In this presentation an overview is given on interviews and questionnaires that can be used to assess disturbed personality functioning in general and Borderline Personality Disorder in special.

#### Methods:

After a review of currently available assessment instruments the psychometric properties and the clinical usefulness of four newly developed self-rating questionnaires will be presented: AIDA (Assessment of Identity Development in Adolescence; Goth et al., 2013), LoPF-QA (Level of Personality Functioning; Goth et al., 2016), OPD-CA-2-QA (Operationalized Psychodynamic Diagnosis Axis Structure; Goth et al., 2016) and BPFSC-11 (Borderline Personality Features Scale for Children; Sharp et al., 2014). All instruments have been tested in both clinical and non-clinical samples in Switzerland and Germany.

#### Results:

All four instruments show excellent reliability scores ranging from .87-.94 (AIDA, LoPF-QA, OPD-CA-2-QA) to .84 (BPFSC-11). At the same time all instruments are able to differentiate between adolescents with Borderline PD and adolescents from the normal population with effect sizes ranging from 1.4 (BPFSC-11) to 2.2 (AIDA).

#### Conclusion:

Disturbed personality functioning as well as early starting Borderline PD can be detected in young people with the use of different instruments that have been developed in the last years.



3212 - Health Related Quality of Life and Psychopathological Distress in Risk Taking and Self-Harming Adolescents with Full-Syndrome, Subthreshold and Without Borderline Personality Disorder: Rethinking The Clinical Cut-Off?

PD Dr. Michael Kaess

Objectives: Diagnostic classification systems have not yet adopted youth adequate criteria of borderline personality disorder (BPD). For example, diagnostic DSM-5 thresholds might not adequately capture BPD symptomatology in youth. BPD is associated with severe impairments in health related quality of life (HRQoL) and increased psychopathological distress compared to other clinical conditions. The study aimed to address the selectivity of the existing diagnostic cut-off in youth BPD with respect to subjective HRQoL psychopathological distress.

Methods: Drawing on data from a consecutive sample of N=264 adolescents (12-17 years) presenting with risk-taking and self-harming behavior at a specialized outpatient clinic, we investigated differences in HRQoL (KIDSCREEN-52) and psychopathological distress (SCL-90-R) comparing adolescents with no BPD (less than 3 criteria fulfilled), to those with subthreshold (3-4 BPD criteria) and full-syndrome BPD (5 or more BPD criteria). Structured clinical interviews were used to assess BPD and comorbid psychopathology, as well as risk-taking, self-injurious behavior and suicidal ideation.

Results: Compared to adolescents with no BPD, adolescents with subthreshold and full-syndrome BPD showed greater Axis I and Axis II comorbidity compared to adolescents with no BPD, and reported greater risk-taking, self-injury and suicidality. Groups significantly differed on all HRQoL dimensions, with significantly reduced HRQoL in adolescents with subthreshold and full-syndrome BPD compared to risk-taking and self-harming adolescents without BPD. Adolescents with sub-threshold BPD and those with full-syndrome BPD did not differ on any HRQoL dimension, with the exception of Self-Perception. Similar, groups with sub-threshold and full-syndrome BPD showed no significant differences on any dimension of self-reported psychopathological distress.

Conclusions: Findings highlight that beyond the diagnostic entity of BPD, subthreshold BPD in adolescents is already associated with similarly severe impairments in HRQoL and psychopathological distress. Together with our finding that adolescent with sub-threshold and full-syndrome BPD seek medical treatment later than those with no BPD, these findings raise awareness on the importance of early detection and question the diagnostic validity of existing cut-offs. Our findings support a lower diagnostic cut-off for adolescent BPD, to identify those at-risk at an early stage.



# 3213 - Borderline Personality Disorder Symptoms and Affective and Interpersonal Instability in Adolescent Non-Suicidal Self-Injury

Dr. Julian Koenig

Objectives: Non-suicidal self-injury (NSSI) is associated with affective and interpersonal instability, both core features of Borderline Personality Disorder (BPD). Ecological momentary assessment (EMA) with repeated assessments of momentary states is the method of choice when investigating dynamic processes. Previously no study addressed momentary affective and interpersonal instability in adolescents engaging in NSSI using EMA.

Methods: Female adolescents (13-18 years) engaging in NSSI (n=26) and age- and sex-matched healthy controls (n=20) carried e-diaries on two consecutive weekends on a total of four days. The majority of participants in the NSSI group also fulfilled diagnostic criteria for BPD (73%). Participants were prompted every hour (up to 14 hours a day) to rate their momentary affective state and feelings of attachment towards significant others (mother and best friend). Squared successive differences across assessments were determined that have previously shown adequacy in quantifying instability.

Results: Adolescents with NSSI reported less positive affect (t(44)=6.94, p<.001), lower levels of attachment to the mother (t(44)=5.53, p<.001) and best friend (t(44)=4.36, p<.001). Both affective (t(44)=-5.55, p<.001) and interpersonal instability (mother: t(44)=-4.10, p<.001; best friend: t(44)=-4.57, p<.001) were significantly greater in adolescents engaging in NSSI. In the NSSI group, the number of BPD criteria met was positively correlated with affective instability (t=.40, t=.40, t=.40) and instability of attachment to the best friend (t=.42, t=.40), but not instability of attachment towards the mother (t=.06, t=.788).

Conclusion: In line with previous work in adults, NSSI and BPD are associated with affective and interpersonal instability assessed by EMA in adolescence. Preliminary findings highlight the importance of affective instability in adolescents engaging in self-injury with comorbid BPD. Clinical implications and avenues for further research are discussed.



# 3214 - Clinical and neuroimaging evidence towards a staging approach for emerging borderline personality disorder

Larisa Morosan

#### Objectives:

Longitudinal studies following children and adolescents during developmental transitions provide new perspectives on both the psychological and biological factors that may indicate risk for emerging psychopathology. This presentation seeks to evaluate the most recent data concerning emerging borderline personality disorder (BPD), reviewing how recent studies may inform a biopsychosocial staging approach to BPD onset.

#### Method:

A review of studies providing clinical assessments designed to examine symptom progression in emerging BPD is provided. While still insufficient in number, the studies to date seem to indicate stages in development of BPD that may serve as clinical guides for early detection. In parallel, cross-sectional and longitudinal studies neuroimaging studies on BPD are reviewed. The data suggests that early indicators of brain connectivity may be further examined to understand their relationship to emerging BPD.

#### Discussion:

The diagnosis of emerging BPD is still being debated amongst clinicians and researchers. Longitudinal studies on clinical and biological markers may further inform the developmental psychopathology of BPD, and provide important information for early identification and intervention strategies. The current data suggest initial points of convergence for identifying the stages of emerging BPD. Increasing evidence outlines the biological underpinnings of BPD, and the early cerebral development markers associated with unfolding symptoms.



# S04-04: The milestone project to assess transition from child/adolescent services to adult services: an overview

S04-04: The milestone project to assess transition from child/adolescent services to adult services: an overview

Professor Benedetto Vitiello Chair of Child and Adolescent Psychiatry, University of Turin

Transition to adulthood is the period of onset of most of the serious mental disorders that disable or kill in adult life. However, only a small proportion of young people in this age group, less than one in six, access services or receive

appropriate care. The current service configuration of distinct Child and Adolescent Mental Health Services (CAMHS) and Adult Mental Health Services (AMHS) is increasingly viewed as an impediment to holistic and comprehensive care for young people, especially those who make a transition from one model to another. There is international concern about young people who get 'lost' during their move from CAMHS to AMHS (hereby called transition). Disruption of care during transition may adversely affect the health, wellbeing and potential of this vulnerable group. This symposium will present initial data from the European-funded MILESTONE project, aimed at assessing the characteristics and outcomes of transition in 8 European countries: this project will provide helpful data to set up effective transition policies and practices in European countries.



#### 3372 - MAPPING CHILD AND ADOLESCENT MENTAL HEALTH SERVICES IN EUROPE: A 28-COUNTRY SURVEY

Professor Giovanni de Girolamo St. John of God Clinical Research Centre

Purpose: Transition-related discontinuity of care between Child and Adolescent Mental Health (CAMHS) and Adult Mental Health (AMHS) Services is a major socioeconomic and societal challenge for the EU. In the framework of the MILESTONE project this survey aims to map current services and transitional policies across Europe, highlighting current gaps and the need for innovation in care provision.

Methods: An on-line mapping survey has been conducted across all 28 European Countries through the administration of two ad-hoc instruments: The Standardized Assessment Tool for Mental Health Transition (SATMEHT) and the European CAMHS Mapping Questionnaire (ECM-Q). The survey systematically collected data about CAMHS organization and characteristics, with a specific focus on actual national transition policies and practice. For each EU Country an identified key respondent was responsible for survey completion.

Results: The survey was conducted between October 2014 and March 2015. Response rate was 100%. There is a marked variability in the number of CAMHS and in the number of acute specialized beds per 100,000 young population in the 28 European countries. A percentage generally ranging from 1 up to 3% of the young population (<18 years of age) has been in contact with CAMHS in the last year. Despite up to 49% of CAMHS service users need to continue with specialist AMHS care, written policies for managing the interface between these two services are available only in 4/28 countries and transition support services are reported as missing by half of the respondents. Lack of connection between CAMHS and AMHS appears as the major (82%) difficulty experienced by young service users.

Conclusions: A marked variability emerges in characteristics of services and in data activity among the 28 European countries. Many countries miss important information at national level about CAMHS and their functioning, warning for an improvement in data collection and service planning and delivery.



#### 3376 - THE MILESTONE PROJECT: IMPROVING TRANSITION FROM CHILD TO ADULT MENTAL HEALTH SERVICES IN EUROPE

Dr. Helena Tuominen University of Warwick

Objectives: Adolescence is a high-risk period for psychological morbidity, and transition to adulthood is the period of onset of most of the serious mental disorders that disable or kill in adult life. The current service configuration of distinct Child and Adolescent Mental Health (CAMHS) and Adult Mental Health Services (AMHS) is considered the weakest link where the care pathway should be most robust. Transition-related discontinuity of care is a major health, socioeconomic and societal challenge for the EU. The overall objective of the MILESTONE project (2014-19) is to improve transition from CAMHS to AMHS in diverse healthcare settings in Europe. The more specific aims are to gather detailed information about CAMHS characteristics and interface with AMHS at national and regional levels across Europe; develop and validate transition-specific outcomes measures; conduct a longitudinal cohort study of transition process and outcomes across eight EU countries; test a model of managed transition in a cluster randomised controlled trial (cRCT) in improving health, social outcomes and transition to adult roles; explore the ethical challenges of providing appropriate care to young people as they move to adulthood; and to develop training modules for clinicians and policy guidelines. Methods: The core project is represented by a longitudinal cohort study with a nested cRCT in eight EU countries (Belgium, Croatia, France, Germany, Ireland, Italy, Netherlands, UK) involving over 1000 CAMHS service users, their parents/carers, and clinicians, with assessments at baseline, 9, 15 and 24 months. The project has active and intensive participation of young people, carers, advocacy groups and key stakeholders and involves two SMEs. Results: The project will provide robust evidence for the most cost-effective way to meet the asyet-unmet need of young people who fall through the CAMHS-AMHS divide; facilitate the development of integrated models of care and function; improve health care outcomes and system efficiencies; and ensure take-up of best practice. First results will be published in 2017. Conclusion: Findings from the project will transform mental health care in the EU for young people. Our results will assist policy makers in making informed and evidence-based decisions for improving health systems, enhancing patient outcomes, quality of life, service satisfaction, and improving health status at individual and population levels.



#### 3377 - TRANSITION IN EUROPE: CHARACTERISTICS OF CURRENT CAMHS USERS ACROSS 8 DIFFERENT COUNTRIES

Dr. Gwen C. Dieleman Erasmus MC – Sophia, Department of Child & Adolescent Psychiatry/Psychology

Objectives: The current service configuration of distinct Child and Adolescent Mental Health Services (CAMHS) and Adult Mental Health Services (AMHS) is increasingly viewed as an impediment to holistic and comprehensive care for young people, especially those who make a transition from one model to another (1, 2). There are currently no longitudinal data on the long term course and outcomes of young people who cross the transition boundary. The MILESTONE study will address this issue with its unique longitudinal observation study design that repeatedly assesses the mental health and functioning of CAMHS service users from late adolescence into early adulthood. MILESTONE addresses the following research questions: 1. What is the population of current CAMHS users across 8 different countries at the border of transition? 2. What are the variations based on their current mental health profile and functioning deemed to warrant transition into AMHS in the different countries?

Methods: Because of the variation in services, care, and ages at transition across European countries, we included CAMHS service users at the specific age of transition in 8 countries in this prospective, multisite cohort study (n=50-150/country/year; total n ~ 1000). At baseline assessment data on need for care (HoNOSCA), emotional and behavioral problems (Achenbach instruments), quality of life (WHOQOL-BREF), severity of the mental illness (CGI-S), DSM-IV and ICD-10 diagnoses and socio-demographics were collected.

Results: From October 2015 till December 2016 a total of 1000 adolescents aged 16-18 years were recruited to give insight in quality of life, mental health, need for care and sociodemographics of adolescents at the specific age of transition from CAMHS to AMHS across Europe.

Conclusions: These data give insight in the population of CAMHS users in 8 different countries across Europe at the border of a possible transition or end of care.



#### 3384 - TRANSITION INTO HEALTH AND SOCIAL SERVICES WITH SCATTERED RESPONSIBILITIES - A SYSTEMS PERSPECTIVE

Professor Ulrike Schulze University of Ulm, Child and Adolescent Psychiatry and Psychotherapy

Objective: Point out differences in health care and social support systems in Europe with special regard to Germany

Study: In 40 patients that are actually tracked into transition age in the MILESTONE study, in addition those who could not be included due to severity of disturbance, we find several pathways of care beyond medical treatment (medication and psychotherapy). Yet it is up to the child psychiatrist to coordinate all the other supporting systems, as the coordination of services in adult age follows different rules and structures. There are special problems and pitfalls induced by the German system of social services, creating a diversity of solutions not easy to be submitted to statistical evaluation.

Transition is well cared for in private practices of Child and Adolescent Psychiatry specialists who are entitled to treat patients till the age of 21 and deal with the other agencies on the way, thus enabling a rather smooth transition. Therapy In hospital based outpatient services, with rare exceptions, has to stop at the age of 18. Patients may not choose between the two, as only the most severely disturbed may be treated in an outpatient clinic. Social support by youth welfare may continue until early adulthood, depending on the educational needs and the quality of impairment of the patient. In the case of mental retardation, social welfare is responsible right away. Rehabilitation efforts for the young patients too impaired to be included in the study were very early also covered by social welfare. Individual patterns as shown in our 40 + 2 patients are demonstrated. A historical view on financing the care for mentally disordered persons in Germany is added to put our findings in perspective: the prognosis of full recovery, till today, is taken for the decision if health insurance and youth welfare or social welfare are responsible for service provision, what kind of institution may be chosen and how transition to adult services can be structured. The

Discussion: The German system is still suffering from historical burdens of scattered responsibilities. Child and adolescent psychiatrists thus need sophisticated knowledge in social law in order to coordinate care for the most severely disturbed patients and their transition to adult serviced. New legislation is on its way.



# 3391 - THE ETHICAL ASPECTS OF TRANSITIONAL CARE BETWEEN CHILD- AND ADULT-ORIENTATED HEALTH SERVICES — KEY FINDINGS FROM A SYSTEMATIC LITERATURE REVIEW

Dr. Moli Paul University of Warwick

THE ETHICAL ASPECTS OF TRANSITIONAL CARE BETWEEN CHILD- AND ADULT-ORIENTATED HEALTH SERVICES – KEY FINDINGS FROM A SYSTEMATIC LITERATURE REVIEW



#### S04-05: Quality Assurance in Child and Adolescent Mental Health Services in Switzerland

Dr. André Della Casa KJPP, PUK Zürich

In times when economic considerations increasingly dominate medical care, the issue of quality assurance continues to gain more importance.

In the psychiatric and psychotherapeutic care for children and adolescents it is especially necessary to demonstrate the effectivity of treatments, as the impact of a psychiatric or therapeutic intervention not only unfolds through its application but also through the way in which the treatment is delivered. Therefore, the satisfaction of young patients and their caregivers must be determined as an important indicator of high quality psychiatric care, taking into account aspects of developmental psychology as well as systemic, ethical and legal questions.

In Switzerland, the National Association for Quality Development (ANQ) coordinates binding quality assessments in child and adolescent mental health service, including psychiatric institutions. The results of these assessments allow for a transparent comparison between hospitals and clinics nationwide. The Swiss Association for Child and Adolescent Psychiatry has tasked a working group with the development of quality assurance questionnaires, with a view to the special requirements of child- and youth psychiatric clinics. These instruments are projected to be implemented as part of a Continuous Improvement Process (CIP) in all facilities, allowing them to steadily develop their quality assessment processes. This is the thematic area we are aiming to explore with this Symposium.

The first presentation will be dedicated to the development and assessment of psychometric properties of a questionnaire for the determination of patient and caregiver satisfaction in inpatient facilities. The second presentation will show the first clinical insights gained from our pilot study conducted in six inpatient facilities. The benchmark results will depict the benefits of these surveys to the internal quality management.

The third presentation will present a pilot study assessing satisfaction from multiple perspectives related to assertive community treatment. And finally, the fourth presentation will introduce the instrument of Treatment Adherence Measures (TAM) developed by multisystemic treatment (MST) Services as an excellent example for the efficient documentation of manual adherence and treatment quality.



3278 - Development and assessment of the psychometric properties of the Swiss Youths Psychiatric Inpatient Satisfaction Questionnaire (SYPISQ)

Dr. André Della Casa KJPP, PUK Zürich

Background: Satisfaction is a key quality indicator of care within child and adolescent mental health services (CAMHS). Nevertheless, only few satisfactory questionnaires have been developed to assess youths' and parents' satisfaction with inpatient (IP) treatment. Most of them seem not suitable for a large scale use of quality development.

Objectives: To assess the psychometric properties of a new instrument measuring satisfaction related to IP stay within CAMHS - the Swiss Youths Psychiatric Inpatient Satisfaction Questionnaire (SYPISQ).

Methods: We assessed the youth and parent form of the SYPISQ after the IP stay of 167 youths in 6 Swiss clinics. The Client Satisfaction Questionnaire-8 (CSQ-8) was administered to assess convergent validity.

Results: Cronbach's alpha (internal consistency) was satisfactory as well as the correlations with the CSQ-8 (convergent validity). The correlations between the youth and parent forms were satisfactory (cross-form consistency).

Conclusion: The SYPISQ showed satisfactory psychometric properties and might help and guide the efforts to improve the quality of inpatient treatment of youths suffering from psychiatric disorders.



### 3282 - Use of the Swiss Youths Psychiatric Inpatient Satisfaction Questionnaire (SYPISQ) for interclinical-comparison

Verena Riedo

Objectives: The aim of this presentation is to examine the clinical influence factors on the satisfaction rate with the SYQISQ. This makes it possible, in the case of clinical comparisons, to determine the factors for the segmentation of the patient collective for representative comparability.

Method: After discharge from 167 patients, the SYPISQ was rated by the patients and the parents form. In addition, the clinicians fulfilled a socio-demographic questionnaire, rated multiaxial clinical information and the global clinical outcome (CGI).

Results: No link between satisfaction scores were observed regarding gender and type of admission (voluntary or not). Axis 1 diagnoses revealed that patients with psychosis (F2) were more satisfied about treatment, parents of patients with neurotic disorders (F4) were more satisfied with information they receive. For the axis 2, parents of patients with specific developmental disorders were more satisfied with the preparation of discharge. Regarding Axis 3, the youths with lower intellectual quotients were more satisfied with the outcome. No relationships were observed with the Axis 4 (physical symptoms), 5 (psychosocial situation) and 6 (social functioning). Patients' satisfaction with information and involvement of clinicians as well as parents' satisfaction with outcome are significantly and positively correlated with reaching objectives (rated by clinician). Cooperation of the child (rated by the clinician) was not correlated with patients' and parents' satisfaction, but parent's cooperation (rated by the clinician) was correlated with patients satisfaction with information, admission and involvement of clinicians as well as parents' satisfactions with information. No correlations were observed between satisfaction and CGI (symptoms improvement). No previous inpatient intake was correlated with higher parents' satisfaction with admission, whereas no previous ambulatory assessment was correlated with higher patients' satisfaction with outcome.

Conclusion: In clinical comparisons it is necessary to subject the patient in groups to diagnoses in order to obtain a valid comparison (benchmark). Symptom improvements, however, do not appear to be a criterion of discrimination.



### 3285 - Patients' satisfaction with community treatment: A pilot cross-sectional survey adopting multiple perspectives

PhD Sébastien Urben

Objectives: Community treatment (CT) teams in Switzerland provide care to patients who are unable to use regular child and adolescent mental health services (i.e. inpatient and outpatients facilities). No study has considered patients' self-rated satisfaction alongside with staff members' perspectives on patient satisfaction.

Method: Using a cross-sectional survey design, we collected patients' satisfaction using the Client Satisfaction Questionnaire (CSQ-8), rated by multiple informants (patients, fostercarers in foster homes and professional caregivers from CT teams). Professional caregivers assessed clinical outcomes using the Health of the Nation Outcome Scale for Children and Adolescents (HoNOSCA).

Results: The results indicated that all informants were satisfied with the community treatment teams. The satisfaction scores were not correlated across informants; however, the alleviation of emotional symptoms was correlated with patients' satisfaction.

Conclusion: This study indicated that the use of a combined approach including the views of service users and professionals gives important complementary information. Finally, in our sample, lower emotional symptoms were linked to enhanced patient satisfaction.

Implications for practice: This study demonstrated the importance of considering multiple perspectives to obtain the most accurate picture of patients' satisfaction. Second, focusing on the reduction of emotional symptoms might lead to a higher degree of patients' satisfaction.



### 3287 - Potential mechanisms underlying the association between treatment fidelity and treatment outcomes in Multisystemic Therapy

Tania Pérez

Objective: Multisystemic Therapy (MST) is an evidence-based treatment for juvenile offenders and youths with severe conduct problems with a rigorous quality assurance system. Assessing therapist adherence to MST principles is an integral part of this system. Previous studies have shown that conducting MST with high fidelity improves youth outcomes. The aim of this study was to examine the degree to which these results could be replicated for the first German-speaking MST teams.

Method: Therapist adherence to the MST protocol was assessed by questionnaires completed monthly by the youth's caregivers. Structural equation modeling was used to test if high fidelity scores predicted favorable outcomes post-treatment and at 18-month follow-up.

Results: Previous results were replicated to some extent.

Discussion: These results highlight the importance of assessing and maintaining treatment fidelity when transporting complex treatments like MST to other cultures.



S04-06: Helping children grow up after attacks and collective trauma: a challenge for child and adolescent psychiatry

Professor Michel Wawrzyniak SFPEADA

This symposium will explore various situations of collective traumas and the various answers brought by the teams of child and adolescent psychiatry.



#### 3104 - Israeli children under stress

Professor Sam TYANO Tel Aviv University School of Medicine

Israeli children are very often exposed to traumatic events .What is the link between exposure and clinical signs of psychopathology? When does a stressful event act as a resilient factor rather than being a risk factor?

What should be our therapeutic approach in the future? We suggest making the transition from focusing on the individual to focus on the community level, especially in the situations of mass PTSD. These require a novel clinical approach.



### 3103 - Child psychiatric care in the emergency situation following the terrorist attack on July 14th 2016 in Nice, France

Professor Florence Askenazy University Hospital of Nice Fondation Lenval

#### Summary

Background Setup of a child and adolescent dedicated pediatric crisis unit after Nice terrorist attack on July 14th. We have to take care of a large and young population after the event and adapted our response to the psychiatric needs in order to reduce the risks of post-traumatic disorder development for the victims.

Methods In order to handle all the patients, we created an emergency medical-psychological unit (CUMP) and we decided to adapt our triage based on the patients ages resulting in three different section. Under 6 years old, between 6 and 12 years old, and over 12 to 18 years old. We then adapted the number of physician for the interview from 3 to 1 based on the age of the patient and also the presence or absence of the parents during it. The crisis unit was composed of 225 persons including 55 psychologists, 51 psychiatrists, 12 head nurses, 42 nurses, 30 social assistants, and 35 secretaries.

Findings Between July 14th and 28th, 711 people visited our pediatric CUMP, among them 382 were under 18 years old. In this context of a terrorist attack on children and families, the establishment of a pediatric CUMP was a unique experience in Europe. We observed that this type of specialized early intervention made it possible to manage the specificity of the affected public. It is therefore a major asset in the prevention of the risk of development of a PTSD or other psychiatric disorders following an acute stress.



3106 - Role of child and adolescent psychiatry in helping a community deal with an industrial disaster and terrorist attacks.

Professor Jean-Philippe Raynaud University Hospital of Toulouse

Located in South of France, Toulouse is the fourth most populated urban area in France, with more than 1,300,000 inhabitants. Twice in the past 15 years Toulouse has been struck by a collective trauma involving children, adolescents and their families.

On September 21, 2001, Toulouse suffered the worst industrial catastrophe that France has known since 1945, with 30 dead, 2,500 wounded and the destruction of many buildings and housing, mainly in working-class districts.

In March 2012, Toulouse and its region suffered a series of terrorist attacks, killing seven people: three soldiers and four civilians, including three children killed in a Jewish school. Methods

With a few years of retreat, the authors will present how child and adolescent psychiatry teams and their partners have dealt with these collective traumas and the lessons they have learned from them. They will present a synthesis of the studies that have been carried out since these events.

#### Results

Our work made it possible to confirm or demonstrate a certain number of data which may be useful in the current context of risk of attacks or disasters: anticipation and coordination of the various partners; taking care of the family in a context of trauma; importance of the family cohesion and of the impact of children trauma on parents; assessing peritraumatic dissociation to target interventions and estimate prognosis; importance of environment and of the duration of its alteration; how to deal with trauma also experienced by caregivers; interest in implementing interventions to prevent complicated grief and pathological grief: role of research in care teams support and resilience...

#### Conclusion

It would be useful that all teams of child and adolescent psychiatry who have been confronted with collective traumatic events share their experiences in developing guidelines.



3107 - Posttraumatic distress, self-perceived healthcare needs and utilization of psychiatric services among survivors of the Utøya youth camp attack

PhD Lise Eilin Stene Norwegian Centre for Violence and Traumatic Stress Studies (NKVTS)

Objectives: A terrorist attack is a major public health challenge, and unmet mental healthcare needs have been documented in the aftermath of terrorism. It is essential to gain insight into health service utilization after terrorism to strengthen the public health preparedness. Young survivors are particularly vulnerable as posttraumatic distress may impair their psychosocial development. Our objective was to examine the relationship between the posttraumatic distress, self-perceived healthcare needs and psychiatric service utilization among survivors of the Utøya 2011 youth camp attack in Norway.

Methods: Three waves of face-to-face interviews were performed 4-5, 14-15 and 31-32 months after the attack and linked with register-based data on the survivors' psychiatric service utilization from 3,5 years before to 3,5 years after the attack. Altogether 261 (53%) survivors participated in the third survey wave and were included in the current study.

Results: Altogether 67% used psychiatric services the first year, 48% the second year and 36% the third year after the attack, compared to 9% the preceding year. Still, approximately one in four survivors with clinical levels of PTSD did not receive specialized psychiatric services. Overall 127 (49%) survivors reported very high/high help needs for psychological reactions, and one in five survivors disclosed unmet mental healthcare needs. The presentation will provide further results on the relationship between posttraumatic distress, self-perceived healthcare needs, and utilization of psychiatric services.

Conclusion: Most survivors received specialized psychiatric services in the aftermath of the attack; still an important minority of survivors with clinical levels of PTSD did not receive specialized psychiatric services. Further improvement in outreach models is required, and will be discussed during the presentation.



S04-07: Adolescent forensic research in Europe: An EFCAP Symposium.

PhD Cyril Boonmann UPK Basel

EFCAP is the European Association for Forensic Child & Adolescent Psychiatry, Psychology & other involved professions, with members in Europe as well as other countries.

#### The aims of EFCAP are:

- \*to improve facilities and to facilitate joint international scientific research to promote interdisciplinary training and interdisciplinary education.
- \*to exchange data obtained from research and to exchange practical experiences and innovative research and treatment methods.
- \*to gather information on and to contribute to national and European policy, in so far as this policy affects young people.
- \*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.



### 3042 - Mental health problems in male young offenders in custodial versus community based programs: Implications for juvenile justice interventions

Ricardo Barroso

Objective: The main goal of the present study was to assess mental health problems in Portuguese male young offenders placed in either custodial or community-based programs and discuss treatment implications within the juvenile justice interventions.

Method: A sample of 217 male young offenders aged between 14 and 20 years were examined. From the total sample, 122 (56.3%) participants were placed in juvenile detention facilities, and 95 (43.7%) were receiving community-based programs. Participants were interviewed with the Mini-International Neuropsychiatric Interview for Children and Adolescents, a structured interview that assesses DSM-IV Axis I Mental Disorders. The Antisocial Personality Disorder section of the Structured Clinical Interview for DSM-IV Axis II Personality Disorders was also used.

Results: Results showed a high prevalence of mental health disorders, with a global prevalence of 91.2% in the total sample. In both groups, global prevalence rates were equally high (93.4% in youth in custodial versus 88.4% in youth in community-based programs).

Conclusions: Our findings inform about specific needs concerning mental health intervention that should be taken into account when deciding and planning rehabilitation programs for male young offenders, either from custodial or community based programs.



### 3045 - Childhood traumatic experiences and mental health problems in sexually offending and non-sexually offending juveniles

Cyril Boonmann

Objective: To examine the relationship between a history of childhood abuse and mental health problems in juveniles who sexually offended (JSOs) over and above general offending behavior. Methods: A sample of 44 JSOs incarcerated in two juvenile detention centers in the Netherlands between May 2008 and March 2014 were examined for childhood abuse history (Childhood Trauma Questionnaire-Short Form) and mental health problems (Massachusetts Youth Screening Instrument-Version 2). Furthermore, the connection between childhood abuse and mental health problems in JSOs was compared to a sample of 44 propensity score matched juveniles who offended non-sexually (non-JSOs).

Results: In JSOs, sexual abuse was related to anger problems, suicidal ideation, and thought disturbance. These associations were significantly stronger in JSOs than in non-JSOs. Conclusions: Our results suggest that the relationship between childhood abuse and both internalizing and externalizing mental health problems is of more salience for understanding sexual offending than non-sexual offending, and should, therefore, be an important focus in the assessment and treatment of JSOs.



### 3046 - Temperament traits of detained male adolescents and their associations to psychopathology and criminal behaviour

Madleina Manetsch

Objective: A growing literature reveals an association between temperament and psychopathology (Rettew et al., 2008). Multiple studies associate aggressive behaviour and criminality (Kenny & Press, 2006, Salekin et al., 2004). It's been known that juvenile detainees suffer from mental illness, often even with a comorbidity (Vermeiren et al, 2006, Plattner et al., 2011). However, characteristics of desistence and persistence in offenders are generally unknown (Laub & Sampson, 2001).

Methods: Temperament and Character, as described with the Juvenile Temperament and Character Inventory (JTCI) show four temperament and three character aspects. In this study we looked at the temperament scales of a sample (n = 137) of detained youths and juvenile community controls. We searched for temperament scales and profiles and their possible connection to criminal behavior and detention. We looked for an association between temperament and psychiatric disorder. And we examined temperament and its possible connection with criminal and violent re-offending.

Results: We found specific temperament profiles associated with incarceration, mental illness and re-offending.

Conclusion: Certain temperament profiles could indicate criminal behavior, mental illness and re-offending.



### 3048 - Do post-trauma symptoms mediate the relation between neurobiological stress parameters and conduct problems in girls?

Kimberly Babel

Objective: Attenuated activity of stress-regulating systems has consistently been reported in boys with conduct problems. Results in studies of girls are inconsistent, which may result from the high prevalence of comorbid post-trauma symptoms. Therefore, the aim of the present study is to investigate post-trauma symptoms as a potential mediator in the relation between stress-regulation systems functioning and conduct problems in female adolescents.

Method: Female adolescents (n= 78, mean age 15.4; SD 1.1) admitted to a closed treatment institution were assessed for disruptive behaviour disorder (DBD, DISC-IV) post-trauma symptoms (Trauma Symptom Checklist for Children, TSCC) and externalizing behaviour problems (Youth Self Report, YSR). The Cortisol Awakenings Response (CAR) measured Hypothalamic-Pituitary-Adrenal (HPA) axis activity, whereas Autonomous Nervous System (ANS) activity was assessed by Heart Rate (HR), Pre-Ejection Period (PEP) and Respiratory Sinus Arrhythmia (RSA).

Results: Females with DBD (n=37) reported significantly higher rates of post-trauma symptoms and externalizing behaviour problems than girls without DBD (n=39). Path analysis found no relation between CAR and externalizing behaviour problems. Positive direct effects on externalizing behaviour problems were present for HR (standardized  $\beta$ =0.306, p=0.020) and PEP (standardized  $\beta$ =-0.323, p=0.031), though not for RSA. Furthermore, no relation – whether direct or indirect – could be determined from trauma symptoms.

Conclusion: Neurobiological characteristics of female externalizing behaviour differ from males, since girls showed heightened instead of attenuated ANS activity. While the prevalence of post-trauma symptoms was high in girls with DBD, it did not mediate the relation between stress parameters and externalizing behaviour.



S04-08: Models of care for young children of pre-school age

Nadia Micali

In this symposium, we will present several interventions that aims at detecting and treating young patients of pre-school age. We will describe a detecting and preventing intervention in kindergarten, the role of speech therapists with young patients with complex developmental delays, the multidisciplinary management of hyperactivity in pre-schoolers, the therapeutic action of a body-mediated group for children, and a psychotherapy centred on parenthood to treat young patients, their parents and the parent-child relationship.



#### 2929 - An early therapeutic intervention in nurseries and kindergarten

Odile Lecerf

This paper aims at presenting some of the activities carried out by the "early therapeutic intervention group" (ETIG) which belongs to the Guidance infantile, an outpatient infant and child psychiatry clinic in Geneva. One of its general mission is to provide support and assistance to educators of all nurseries and kindergarten in the Geneva Canton. These interventions are carried out at the request of the educational staff.

Several studies demonstrate the importance of the early therapeutic support, not only for personal efficiency but also for profitability. In that way, early support reduces the risk of children to present chronic psychological troubles. Thus, child and family benefit from this support.

In this context, the mission of our team is consistent with the three levels of prevention proposed by the WHO.

Primary prevention: providing assistance to educational staff for the early screening of psychological or developmental troubles and refering them to the clinician team, supporting educational staff to think about their professional practice, contributing to professional training, providing a place of life consistent with the child's psycho-educational needs Secondary prevention: preventing the emergence of early inadequate relationships, strengthening the educational skills of the educational team in relation with the needs of the child or the group of children in the nursery, suggesting new ways to welcome a child in the group, to take care of him and to provide any required specials needs.

Tertiary prevention: supporting educational team in the follow-up of children with troubles, identifying educational strategies for children with psychological troubles or special needs.

The main characteristic of the early therapeutic intervention group is to support the well being of the child through an early screening, to identify the most adequate therapeutic strategies and to support educational staff. The ETIG aims at promoting consistency between specialized and common places.

Early therapeutic intervention helps early screening of psychological or developmental troubles, providing the most adequate backgrounds for children with difficulties, supporting educational staff before the situation becomes recurrent and avoiding psychopathology.

Key words: pre-schoolers, early intervention, prevention, screening, kindergarten.



### 2930 - Using speech therapy to help treat young patients with complex developmental delays

Stephanie Gros

In our outpatient unit, we receive patients from age 2 until 5 with speech delay and communication disorders. Our speech therapists are specialized in diagnosis as well as in treatments of patients who haven't yet developed language. These professionals are frequently the first to come in contact with those patients as language delay is an immediate concern for parents. Those delays are often due to more complex developmental issues and a combined approach is then advised.

We will present this specific insightful work in collaboration with our multidisciplinary team of child psychiatrists, psychologists and psychomotor therapists.

Key words: pre-schoolers, speech therapy, language, communication, complex developmental delay.



#### 2933 - Hyperactivity in pre-schoolers

PHD Geneviève Vaudan Vutskits

Hyperactivity is a frequent complaint among parents who seek help from child psychologists or psychiatrists. In pre-schoolers, it is a challenge as it is the presenting symptom of a variety of conditions ranging from banal variations of normal development to chronic serious conditions with developmental issues. Differential diagnosis is wide and it is not always possible to get a definitive and reliable diagnosis below 5 years of age. However, it is of utmost importance to take it seriously into account, and to propose early therapeutic interventions. Indeed, there is a potential for those clinical situations that manifest in hyperactive behaviour to worsen, and lead to negative outcomes with major adverse effects on both cognitive and affective development. In this presentation, I will discuss the symptoms level, differential underlying diagnoses as well as an approach that comprises a combination of evaluation and early therapeutic interventions. The interest of addressing both child and parental issues even before having a definitive diagnosis will be discussed, as well as the parental skills that need to be promoted in order to let parents better cope with their child.

Key words: child development, early therapeutic interventions, hyperactivity, pre-schoolers.



#### 2935 - A body-mediated group for pre-schoolers

MD Inaki Marion Moron

The aim of this paper is to describe the therapeutic work done in a body-mediated group for young children suffering from psychological troubles that manifest mostly through the body, as with psychomotor agitation, behavioral disorganization or inhibition. Most of these patients fight against depressive or more archaic anguishes that can neither be contained nor elaborated. They are in trouble with their self-identity, and their social integration is frequently compromised. At this age, group psychotherapy help to prevent school integration problems.

Three psychotherapists of psychoanalytical orientation lead the once-a-week session group which progresses by body mediations (dance and relaxation), combined with drawing and discussion. The underlying psychoanalytic theory helps them to understand and work through the fantasies and the emotional material that children bring to the group. The body mediation enables patients to better mentalize their emotional and relational functioning. They are then more capable of introspection and some of these patients are then reoriented for an individual psychotherapy. Parental guidance or psychotherapy is also provided in parallel to the group.

KEY WORDS pre-schoolers, group, body mediation, relaxation, psychotherapy.



### 2936 - Psychotherapy centred on parenthood (PCP) to treat young patients, their parents and the parent-child relationship

MD Nathalie Nanzer Madame

Many early childhood psychopathologies are related to mother-child or parent-child relational disorders. These originate in representational distortions that the parent has of the child. The parents' early childhood history conditions, in a conscious and above all unconscious manner, the way in which they perceive themselves as parents and how they perceive their child. When parental representations are pathological, this disrupts parent-child relationships, leading the child to express his or her emotional distress through a variety of symptoms such as functional, emotional, behavioral or developmental disturbances of varying severity. PCP provides access to unconscious parental phantasies and allows them to be worked through psychotherapeutically.

This enables parents to come to understand and take back the phantasies they projectively identify with in their children, freeing them of the weight and distortion of these representations and alleviating their symptoms. The children can then be seen by their parents for who they are and their own personal characteristics can be recognised.

Insofar as the parents' prior experiences and styles of parenthood impact on their child at all ages, this form of psychotherapy is appropriate for all children and adolescents. However, it is especially indicated in cases where early parent-child relations are disrupted or distorted. Parent-child relational psychopathology in infancy is particularly responsive to this form of psychotherapy since the parent's psyche is more accessible and pliable during this period. Moreover, infants are dependant on parental functions and projective identification (of a positive and negative kind) for their development, making them acutely sensitive to therapeutic changes in parental phantasies.

Key words: pre-schoolers, parent-child psychotherapy, psychodynamic, representations.



#### S04-09: From research to practice with children in transcultural situation

Professor Marie Rose Moro AEPEA Maison de Solenn, University of Paris 5, MSF

The symposium is about child mental health in transcultural situation, when patients and carers do not share same language, origin and culture. We will present you in particular our latest researches about drawing and bilingualism of migrant's children with the presentation of new clinical tools. We also present you our practice in humanitarian situation with children affected by trauma conflict.



### 3072 - "Between here and there, I draw you my own world". T-MADE, a new transcultural method to analyse children's graphical productions

PhD psychologist Alice Titia Rizzi AEPEA, Maison de Solenn, University of Paris 5, MSF

Background and aim: Drawing is the preferred means of expression for children, in particular when they are asked to express themselves in front of a group of adults, and moreover when it comes to children having multicultural backgrounds such as migrant children. However how can we promote, understand and analyze those productions?

We've performed a research for the last 6 years, focused on the material created by children, the drawings imagined and produced during transcultural consultations, and family and group psychotherapy consultations.

From these sessions, the drawings along with the narrative productions of the children have been analyzed in relation to the interactions within the group. The process of co-construction emerges from the interactions between sign and word, between here and there, as well as between the children's world and the adult's one. The results of the analysis highlight the dialogical aspect of drawing. The graphical production supports the process of psychic and cultural elaboration of the child, therefore considered as the essential aspect of mediation between the tongues, the languages, the cultures and the interactions.

The method consists in a qualitative analysis of drawings produced by children during the transcultural sessions. The analysis are longitudinal, cross-sectional and reflexive (transfer/countertransference), regarding 3 cross-axis: individual, familial and groupal. Drawings, along with the narrative productions of the children, have been analyzed in relation to the interactions within the psychotherapeutic group.

Results and Conclusion: The results of the analysis highlight the dialogical aspect of drawing. The graphical production supports the process of psychic and cultural elaboration of the child, therefore considered as the essential aspect of mediation between the tongues, the languages, the cultures and the interactions. Drawing thus holds a significant place: it is the sign of children's creativity, but also of the narrative and transcultural production experienced and shared. According to analyses results, we theorize a transcultural approach for migrant' children drawings as well as an innovative two-axis analysis method: the contents and the valences of a drawing.

Clinical example, utilization and implication of the T-MADE method, are discussed.



3075 - The use of drawing in the therapy with children affected by conflict trauma: how to recover the past for making the future possible.

Dr. Elisabetta Dozio AEPEA, Action contre la Faim, University of Paris 5

Objectives: In humanitarian contexts children are seriously affected by several traumatic events that impact their possibility to give a sense to what appended to them and their families and all the changes occurred in their life.

They feel alone and disoriented, sometimes they don't remember anything before the war and they can't imagine a future.

In Central Africa Republic a psychological support program is organised for most vulnerable children with the aim to reinforce their inner and social resources and support them to build a possible future.

Methods: The psychosocial program is based on a therapeutic protocol organised on five group sessions, on weekly base. Children are aged between 6 and 14 years. In each session after a moment where children can verbalise their emotions and feelings, they are asked to draw with a specific and different instruction for each session. The sessions and the drawing are focused on the processes going from "the life before the war" to "the future: when I grow up", passing through "the present life".

After the individual production, the children are invited to share with the group in order to mobilize the collective representation of the past, present and future and helping them to recognize themselves in the other ones.

Results: More than 500 children participated to the program in 2016. Their productions, the drawing about "the life before, during and after the war" as well as "the projection into the future", gave to the children the possibility to express themselves in a different way, more accessible than words.

The drawings were a support allowing them to share their inner emotional state and creating link among children. They felt to be part of a group where they were safe enough to freely express their emotions and share dreams for the future.

More than 90% of the children showed an improvement on psychological wellbeing and a reduction of post-traumatic stress symptoms.

Conclusion: The use of drawing in psychological therapeutic setting for traumatised children can support them to express emotions and thoughts about the war and the terrible changes occurred in their life. These productions shared into the group, allowed children to emerge from their isolation and to create links between them. They were able to revalue and rediscover a representation of a common past, which allowed them to imagine a possible future.



#### 3077 - Children' drawing and narratives in humanitarian fields

Professor, psychiatrist Marie Rose Moro AEPEA, Maison de Solenn, University of Paris 5, MSF

Awareness of war trauma effects on adults has increased, but impact on babies and children have not been enough studied, recognised and treated. Since 1989, we have focused our psychiatric expertise with "Médecins Sans Frontières" (M.S.F. i.e. Doctors without Borders is an international medical organization which act in countries in war) in regions of war and catastrophes around the world (Armenia, Middle-East, Guatemala, Indonesia, China, Sudan...)

We have built multidisciplinary intervention strategies, taking into account the cultural and social context and every specificity of the observed pathologies in these situations of severe crisis, which concerns directly as well as indirectly the destruction of family and group.

Through concrete situations we analyse the children' productions and drawings with qualitative and transcultural methods and evaluate modalities of psychological suffering of children, the clinic of trauma and above all the modalities of care. We will discuss why strategies of intervention have to be defined with local teams and have to be the subject of training sessions on the spot. This local settings allow taking into account the individual, familial, social and cultural competences and resilience in each situation and each field.

Psychiatric interventions for children facing situations of extreme crisis (war, catastrophes...) require the establishment of strategies for evaluation and care, with a pragmatic and multidisciplinary framework, valuing cultural and social contexts.



### 3079 - Language playground. Bilingualism and mother tongues in child psychiatry care of children of migrants

Dr. Stephane Di Meo AEPEA, CMPP Camille Claudel, Saint Denis (France)

Background and aim: What place should be given to the mother tongues of children of migrants consulting in child psychiatry? Minority languages are often held in low regard by childhood institutions, even though increasing evidence shows benefits at all levels of early bilingual education. Mother tongues and bilingualism are often perceived as barriers to understand patients and their families and to establish a good therapeutic relationship. Many clinicians fear, rightly, to make a missdiagnosis. However, mother tongues may also be an amazing therapeutic lever if one recognizes their role in care and if one values them.

The method: In particular situations such as the evaluation and care of language disorders, selective mutism and more generally, in the practice of the child psychiatrist, we will show through clinical examples, how transcultural psychiatry can help us create original settings: transcultural consultation, language test taking mother tongue into account, mediated therapeutic group. In the field of research, our multidisciplinary team has developed an original tool for evaluating the mother tongue: ELAL d'Avicenne. We will describe this test as well as the research that enabled its validation. It is a new original tool to help clinicians in diagnostic work-up of language disorders. It also makes it possible to highlight the competences in mother tongue even unsuspected by parents. It has a mediating role between parents and clinicians to explore language, migratory paths and transgenerational transmission.

Results and Conclusion: The child's mother tongue and bilingual skills then become new playgrounds, expanding the boundaries of the transitional space between clinician, child and parents.



S04-10: Transgenerational effects of childhood adversity on mother-child-interaction, children's well-being and neurobiological correlates

Prof. Dr. Romuald Brunner University Hospital Heidelberg

The symposium will present selected findings from the multi-center study UBICA (Understanding and breaking the intergenerational cycle of abuse). First, Dittrich et al. will talk about transgenerational effects of maternal childhood adversity (CA) and/or a history of depression on the quality of interaction with their five to twelve years old children and on children's well-being. Based on data of the same sample, Möhler et al. will present findings on transgenerational effects of maternal CA and/or depression on the inhibitory functioning of children. Subsequently, Reichl et al. will discuss the moderating role of polymorphisms from the oxytocin receptor gene on relations between maternal CA and parenting behavior. Consequently, Dahmen et al. will compare a group of adolescent and adult mothers and their three to six months old infants regarding psychosocial risk factors, the quality of mother-child interaction and maternal and children's well-being. Finally, Fuchs et al. will present findings about longitudinal effects of maternal CA on the adrenocortical attunement in mothers and their three years old toddlers.



### 3429 - Intergenerational effects of maternal history of childhood abuse and depression on mother-child interaction and child well-being

Katja Dittrich Charité - Universitätsmedizin Berlin

prevention programs.

Objectives: A typical and common reaction to childhood abuse experiences is a major depressive disorder in adulthood. Both, a history of early life maltreatment as well as a major depression increase the risk for children of affected mothers to develop a psychiatric disorder and to show decreased psychosocial functioning. The aim of the UBICA (Understanding and Breaking the Intergenerational Cycle of Abuse) project was to disentangle the effects of maternal history of abuse and depression on the next generation and to identify pathways of this intergenerational transmission. We present behavioral data on effects of maternal history of abuse and depression on maternal sensitivity and child well-being.

Method: 194 mothers with/without depression in remission (Mini-International Neuropsychiatric Interview) and with/without history of childhood abuse (Childhood Experiences of Care and Abuse Questionnaire) and their children aged five to twelve participated in Berlin and Heidelberg. We conducted regression analyses to investigate effects of these two maternal risk factors on maternal sensitivity (Emotional Availability Scales), child psychopathology (Child Behavior Checklist and Teacher Report Form) and child health-related quality of life (KIDSCREEN-27). To identify pathways of transmission of maternal history of abuse and depression on child well-being we performed mediation analyses considering maternal sensitivity and parental stress as potential mediators.

Results: We found an indirect effect of maternal history of depression on maternal ratings of child problem behavior with maternal sensitivity as mediating variable. When teachers reported on children's problem behavior, maternal history of abuse was directly linked to child adjustment, and the effect was not mediated by maternal sensitivity. A significant effect also emerged for maternal history of depression on children's quality of life in both, maternal and child ratings, which was mediated by maternal sensitivity and parenting stress.

Conclusion: We conclude that maternal history of abuse and depression both affect child well-being in distinct domains of child functioning. Maternal sensitivity and parenting stress are important mechanisms in the transmission of maternal depression and should be targeted in



### 3433 - Transgenerational effects on child inhibition: The role of maternal history of abuse, depression and impulsivity

Prof. Dr. Eva Möhler University Hospital Heidelberg

Introduction: Children's level of inhibitory functioning has been shown to be positively associated with child adjustment over the course of development.

Method: Examining a sample of 194 mothers and their five to twelve year old children, we analyzed whether children of mothers with a history of childhood abuse (n = 30), mothers with remitted depression (n = 38), mothers with a history of abuse and remitted depression (n = 51) and children of comparison group mothers (n = 75) differed in their inhibitory performance. In addition, we examined the role of maternal impulsivity. Children's level of inhibitory functioning was assessed using three subtests of the developmental neuropsychological assessment battery NEPSY. Assignment to one of the four groups was based on recognized and valid clinical interviews. Maternal impulsivity was measured using a self report questionnaire. Results: Data analyses did not reveal any group differences in children's inhibitory performance. However, we found a moderating effect of maternal impulsivity: Children whose mothers reported a history of childhood abuse and high levels of impulsivity were found to show lower levels of inhibition than children whose mothers reported a history of abuse and low levels of impulsivity.

Discussion: Implications for research and clinical practice will be discussed.



### 3437 - Childhood adversity and parenting behavior: The role of oxytocin receptor gene polymorphisms

Dr. Corinna Reichl University Hospital Heidelberg

Objectives: In line with the cycle of abuse hypothesis, previous research revealed experiences of childhood adversity (CA) to be related to difficulties in parenting behavior. However, it can be expected that mothers' genes may influence their parenting behavior and the extent to which CA may have an impact on mother-child interaction and parenting skills. Especially polymorphisms of the oxytocin receptor gene (OXTR) have been discussed as prominent gene variants that may moderate relations between CA and parenting behavior.

Methods: We relied on a sample of 195 mothers and their on average 8 years old children. Maternal experiences of CA (antipathy, neglect, physical, psychological, and sexual abuse) were assessed using a standardized interview (CECA). A questionnaire for the assessment of child abuse potential (CAPI) and observations of mother child interaction (emotional availability scales) were used as indicators of parenting behavior. Moreover, we analyzed polymorphisms of the maternal OXTR (rs1042778, rs2254298) gene.

Results: Variants of the maternal OXTR gene did not directly affect their parenting behavior. However, the single nucleotide polymorphism rs2254298 significantly moderated relations between mothers experiences of CA and parenting behavior (child abuse potential, maternal sensitivity).

Conclusions: Our findings underline the importance of considering interindividual differences when investigating consequences of CA. Knowledge about the influence of the OXTR gene on relations between CA and parenting behavior may constitute an important premise for developing intervention programs that are adapted to an individual's needs.



### 3445 - Mother-child-interaction and children's cognitive-emotional and attachment development among adolescent mothers and their children

Brigitte Dahmen University Hospital RWTH Aachen

Objectives: Adolescent motherhood is a significant risk factor for lower parenting quality and poor infant mental health. Adolescent mothers are often exposed to multiple risk factors, such as low SES, history of own maltreatment, and increased psychopathology resulting in lower parenting quality, increasing the risk for intergenerational cycles of maltreatment. Child maltreatment causes stress which disrupts early brain maturation and has devastating long-term effects on the child's later cognitive, psychosocial and affective development.

This study aimed to disentangle the complex associations between maternal characteristics, mother-child interaction and the child's cognitive-emotional and attachment development between adolescent and adult mothers to better understand the mechanisms underlying the high risk for child neglect and maltreatment in adolescent mothers. In addition, we investigated the effects of an early intervention program which focused on improving the quality of mother-child interaction.

Methods: Following a randomized controlled trial design, 50 high risk adolescent mothers (<21 years old) and their 3-6 month-old children were included. The comparison group consisted of 30 adult mothers (>25 years). Mother-child dyads were assessed with an assessment battery of psychosocial, behavioral, neural and genetic measures at 3 time points: Pre-intervention, at the end of the intervention and at 6 months post-intervention. Repeated-measures analyses and structural equation models were performed to investigate group differences.

Results: Adolescents mothers compared to to adult mothers, suffered from higher psychosocial stress and psychiatric morbidity were found to be at a significantly higher risk for dysfunctional interaction strategies towards their infants' needs. Children of adolescent mothers were less responsive to their mothers and showed significantly more behavior problems and developmental deficits. In addition, they were more likely to develop disorganized attachment patterns compared to children of adult mothers, a risk factor for the development of psychopathology later in life.

Conclusion: These findings stress the need for early interventions focusing on the mother-child relationship. Implications for the identification of high-risk mothers for targeted prevention strategies will be discussed.



### S04-10: Transgenerational effects of childhood adversity on motherchild-interaction, children's well-being and neurobiological correlates

## 3446 - The effect of a maternal history of childhood abuse on adrenocortical attunement in mothers and their toddlers

Dr. Anna Fuchs University Hospital Heidelberg

Objectives: Experiences of childhood maltreatment have been very clearly linked to numerous adverse consequences for the individual. It has also been hypothesized to impact on next generation offspring mainly through negative parenting behavior. A recent shift in parenting and attachment research has provoked a stronger focus on a more integrative model of parent-child-relationships. Conforming to the multilevel complexity of human affiliation processes, the biobehavioral approach of mother-child attunement considers not only behavioral, but also physiological dimensions of dyadic interaction. Therefore, the aim of the study was to investigate circadian mother-child adrenocortical attunement in mothers with a history of childhood abuse (HoA) and a matched comparison group while integrating behavioral mother-child interaction and controlling for maternal psychopathology.

Methods: Shortly after birth of their child, a community sample of women was screened using the Childhood Trauma Questionnaire. Mothers reporting moderate or severe sexual and/or physical abuse were included in the HoA group (n=37; HoAG) and compared with a non-maltreated comparison group (n=45; CG). Three years later, cortisol awakening response (CAR) and diurnal slope (DSL) were assessed for both mothers and children. Mother-child interaction was observed and coded using the Emotional Availability Scales.

Results: For the CAR, we found adrenocortical attunement only in the HoAG (2-way interaction:  $\beta$ =-1,13; p=0.004), particularly if children scored low on responsiveness (3-way interaction:  $\beta$ =1,07; p=0.044). DSL alterations occured in highly sensitive mothers only, with the association between maternal and child cortisol being positive in the CG but negative in the HoAG (3-way interaction:  $\beta$ =7,95; p=0.012).

Conclusion: Firstly, our results suggest alterations in physiological attunement in mothers with a history of childhood abuse and their toddlers compared to a non-maltreated comparison group. Secondly, it is of high importance to consider assessment context examining mother-child-attunement, as examining CAR and DSL seems to bring about divergent results. Lastly, it may not in any case be an inevitably positive association between behavioral and physiological attunement, as it seems to be possible for mother-child-dyads to show less optimal interactional quality and, at the same time, be highly attuned to each other physiologically.



### **S04-11:** Where there is no child-psychiatrist:

Dr. Henrikje Klasen De Jutters

Child and adolescent mental health (CAMH) problems are common, affecting about 10-20% of children globally; they are serious, having been linked to educational failure, substance misuse, (sexual) risk taking behaviour, child abuse as well as long term exclusion and dysfunction in adult life; and they are treatable with sufficient evidence available to justify the set-up of services worldwide. However, particularly in low and middle income countries (LAMIC) CAMH-needs often remain unrecognized and stigma and the allocation of resources and implementation of wider programmes remains a challenge. After giving an overview of global educational initiatives by the International Association of Child and Adolescent Psychiatry and Allied Professions (IACAPAP), this symposium explores partnerships and activities from GAZA, Oceania and Ethiopia aimed at expanding CAMH into regions where there are no or few child psychiatrists.



## 2942 - Educational Initiatives by the International Association of Child and Adolescent Psychiatry and Allied Professionals

Dr Julie Chilton

Aware of the need to train more professionals, particularly in LAMIC, IACAPAP has been involved in a variety of educational initiatives starting with the publishing of the open-access eTextbook in 2012. The textbook so far has had almost 250 000 page views and is widely used in training worldwide. However, the need for training far exceeds what a textbook can provide and in conjunction. To this effect, early in 2016 IACAPAP will start running a massive open online course (MOOC) "Essentials of child and adolescent psychiatry across the world" as an introduction to CAMH for professionals and the educated public. As a further step an adaptable skills-based face-to-face training program for second-line professionals, the international child and adolescent mental health (iCAMH) training, provides the much needed clinical competencies for diagnosis and management of common uncomplicated child psychiatric disorders, including those related to trauma and HIV/AIDS.



## 2943 - Freud in Gaza - chances and challenges of psychosocial work in Palestine, in a joint perspective

MD, MPH Patrick P. Haemmerle

### Objectives:

Palestine (West Bank and Gaza Strip), since more than 70 years, is a region in constant political conflict. Although practically separated by the Israeli blockade since more than 10 years, the health and psychosocial problems in both parts of this proto-political entity are quite the same. The political situation, a lack of medical and psychosocial professionals and basic infrastructure makes the region a privileged indication for NGO interventions in these domains.

This presentation will describe a training project for psychosocial professionals in group supervision combined with implementation and consolidation of soccer (construction of training fields, trainer training etc.), both conceptualized for improving mental health of youngsters in this region.

#### Methods:

Initiated by the OPSI (Office for Psychosocial Issues) and financed by the German Direction for Development, a group of German and Swiss Psychologists, Psychiatrists and CA Psychiatrists, over 6 years trained during at least two periods of 2 weeks the students in the West Bank and in the Gaza Strip. Three times, and despite plenty of difficulties (political obstruction, the 2014 Gaza war), the Palestinian colleagues came for two weeks to Europe, Germany and Switzerland, to continue the training and for visiting institutions in the field of mental health. The two presenters will describe the process of this project in a kind of dialectic perspective, from the point of view of a trained Palestinian colleague and the point of view of an expat trainer's experience.

### Findings:

The six year project allowed the training of more than 20 psychosocial professional in group supervision and to continue the training with ten highly qualified colleagues to train them as trainers. With the end of the project, practice and training in group supervision has become a precious instrument in the hand of the local colleagues.

#### Conclusions:

Group supervision of psychosocial professionals should become a basic component of improving CAMH in region with high political tensions.



### 2947 - Think Global, Act Regional: Expanding CAMH in Oceania

Dr Nick Kowalenko

### Objectives:

Oceania presents unique challenges for CAMH and LAMIC because of the relative geographical isolation, large population spread, extraordinary cultural diversity and poor infrastructure. This presentation will describe the work of the Faculty of Child and Adolescent Psychiatry in Australia and New Zealand to partner with Pacific and also Indian Ocean neighbours to support CAMH to progress global mental health regionally.

### Methods:

Partnerships were established with Pasifika medical associations, NGOs, Universities, professional bodies and many others to undertake education and training in post-colonial host nations, such as Vanuatu, Fiji, Papua New Guinea (PNG) and Sri Lanka, together with training in Australia and New Zealand.

Strategies for establishing, managing and maintaining partnerships will be outlined. This is a challenge and can provide many opportunities. It provides the framework for education, project planning including negotiating funding, responding to local needs and securing sustainability. As part of a suite of educational activities, iCAMH has had a key role and has been adapted for local circumstances. Qualitative pilot data from iCAMH training in PNG and Fiji will be presented.

### Findings:

Limited resources and brief projects demand creative responses. The analysis of qualitative pilot data can inform improvement in iCAMH training in our region, and provide important feedback for global consideration.

### Conclusions:

iCAMH training is a key component of developing CAMH capacity in LAMIC. Local adaptation of a global approach may help extend reach, including modifications to cultural norms. This paper also considers iCAMH as an educational tool in a suite of approaches to build regional capacity and inform global development.



### 2948 - The iCAMH Training: Experiences from Ethiopia

Dr Henrikje Klasen

De Jutters; Center for Youth Psychiatry; The Hague and Leiden University MC

### Background: The iCAMH Training:

Following from the IACAPAP textbook and MOOC the iCAMH training belongs to the measures designed by IACAPAP to strengthen the capacity in child and adolescent mental health (CAMH) care around the world. It is a 24-30 hour face-to-face training focusing on clinical competencies, leadership and service implementation. It is primarily aimed at general psychiatrists and paediatricians and their trainees (secondary services) and links in with WHO's mhGAP, aimed at primary services. IACAPAP provides an adaptable training package including, power-points, videos, problem based learning exercises, clinical scenarios as well as assessment and evaluation tools. They also run a volunteer service to link experienced child psychiatry trainers to host organisations in low and middle income countries, who have a shortage of CAMH teaching staff.

The programme was developed in 2014/15 in Ethiopia and has since been taught yearly to final year peadiatric residents at Addis Abeba University, the main training centre in the country. Aim of this presentation is to present the programme and to show some results as to its effectiveness in improving CAMH skills, attitudes and knowledge in non childpsychiatrists.

### Method:

Pre- and post- evaluations of knowledge, skills and attitudes as well as satisfaction were performed on three groups of peadiatric residents following the iCAMH training. In the first year the residents practice (based on patient files) was also examined pre- and post training.

#### Results:

Residents valued the course as being highly practical and relevant to their work. While they improved greatly with regard to skills and attitudes following the course, their improvement of knowledge varied greatly and depended on whether they managed to do some reading and studying outside the course.

#### Conclusion:

The iCAMH training can have a positive effect on participants skills and attitudes in CAMH. For best effect it needs to be adapted to local circumstances and culture and combined with other methods of knowledge acquisition (e.g. IACAPAP textbook and/or MOOC).



S04-12: Asleep or awake - What does the sleeping brain tell us about maturation, learning and psychopathology?

Prof. PhD Reto Huber

Brain activity during sleep may provide a unique window onto adolescent cortical maturation. Especially electrophysiological sleep characteristics such as slow waves and sleep spindles were shown to be involved in short-term and long-term modifications of the developing brain. There is increasing evidence for sleep playing an active role during processes of synaptic plasticity shaping neural networks and supporting waking functioning. Sleep also seems to be bidirectionally related to altered processes of emotions, perceptions, and cognitive functioning. Long before technical and imaging advances shed light on sleep characteristics, disturbed sleep was found to be a core feature of many mental disorders such as ADHD, anxiety disorders, depression, and schizophrenia. Sleep disruptions seem to precede onset of these disorders and may enhance symptomatology. These findings highlight the importance of understanding when and how deviations from typical sleep characteristics occur and how this impacts pathophysiology of emerging mental disorders to improve prevention and targeted treatment. Prof. Huber and Dr. Tarokh will chair the session putting all of the presentations into context and identifying their relevance for future research and potential clinical implications. First, Dr. Tarokh will review characteristics of the sleeping and waking EEG during adolescence and present data regarding the degree to which genes and environment contribute to sleep physiology. She will provide data with relevance for public health and for clinical work with adolescents reporting sleep disturbances. Dr. Prehn-Kristensen will present data that highlight the impact of sleep on the consolidation of emotional and rewarded memories in children with ADHD. Here, especially the role of slow oscillations in deviant sleep-associated memory in processes will be emphasized. Dr. Wilhelm will present recent findings indicating differential effects of sleep on emotional memory consolidation in socially anxious and healthy children and adolescents. Finally, Dr. Gerstenberg will focus on sleep spindle oscillations, waxing and waning deflections in the EEG during early deep sleep. The synchrony and density of sleep spindle oscillations may be crucial for the organization of thalamocortical pathways. Dr. Gerstenberg will shed light on associations of disturbed sleep spindle density with specific domains of psychopathology in adolescents with a major depression or early-onset schizophrenia.



### 2877 - Characteristics of the sleeping and waking EEG during adolescence

PhD Leila Tarokh

### **Objectives**

To characterize developmental changes in sleep physiology during adolescence and quantify the degree to which genes and environment contribute to sleep physiology in early adolescence. Methods

High-density (58 channel) sleep EEG recordings were performed in 18 monozygotic (MZ; n = 36) and 12 dizygotic (DZ; n = 24) twin pairs, ages 10 to 14 years. Sleep EEG spectra were calculated for NREM and REM sleep and divided into the following frequency bands: delta, theta, alpha and sigma. Structural equation modelling was used to quantify the relative contribution of genes and environment to sleep EEG power.

#### Results

During adolescence, a decline in sleep EEG power is seen across all bands. With regards to delta power, we find that sleep EEG power is almost entirely driven by genes across all derivations. Conversely, sigma band power, a proxy for sleep spindles has both genetic and environmental contributors dependent on cortical region.

### Conclusions

Our findings show high heritability of the sleep EEG, the degree of which is dependent on brain region and frequency band. Many psychiatric disorders have their onset during adolescence and are accompanied by a sleep phenotype. By understanding how genes and environment contribute to the sleep EEG during this period, we can open up new avenues for research.



2878 - The effect of closed-looped acoustic stimulation during sleep in children with and without ADHD: Enhancing the consolidation of rewarded memories by increasing slow wave activity?

PhD Alexander Prehn-Kristensen

#### Introduction:

Slow oscillations (SO) during slow wave sleep foster the consolidation of declarative memory. Children with ADHD display deficits in the sleep-associated consolidation of declarative memory, possibly due to an altered function of SO. A recent study showed that the external induction of SO by transcranial direct current stimulation (tDCS) can normalize the sleep-dependent consolidation of declarative memory in children with ADHD. The present study aimed at enhancing SO activity using closed-looped acoustic stimulation during SWS in children with ADHD. This method was proven to enhance endogenous SO activity during sleep and to foster sleep-dependent consolidation of declarative memory.

### Methods:

15 children with ADHD (aged 9-12 yrs.) and 16 healthy children (same age) participated in a double-placebo controlled study trial. Besides an adaptation night, children spent two experimental nights in a sleep lab, one stimulation night and one sham night. Before sleep, children learned a set of word pairs; half of the word-pairs were declared as high-rewarded (yielding a high monetary reward), while the other half was declared as low-rewarded (yielding only little monetary reward). In addition, a motor learning (serial reaction time) task was applied. After sleep, the retrieval took place on the next morning. Results:

There were no differences in memory performance between children with and without ADHD in the sham condition. After stimulation, however, healthy children compared to children with ADHD performed significantly better on high-rewarded memory items. In contrast, children with ADHD performed better on the motor learning task than healthy children. The analysis of sleep recordings is ongoing.

#### Discussion:

Here, we observed that the improvement of endogenous SO activity during sleep supported the consolidation of rewarded declarative memories in healthy children. No such effect was observed in children with ADHD. These data support the hypothesis that the function of slow wave activity in memory consolidation is altered in ADHD.



## 2883 - Emotional memory consolidation during sleep in socially anxious and healthy children and adolescents

PhD Sabine Groch

### Objectives:

Cognitive models propose a negative memory bias as one key factor contributing to the emergence and maintenance of social anxiety disorder (SAD). The long-term consolidation of memories relies on memory reactivations during sleep. We investigated in SAD patients and healthy controls the role of memory reactivations during sleep in the long-term consolidation of positive and negative information.

#### Methods:

Socially anxious and healthy children and adolescents learnt associations between pictures showing ambiguous situations and positive or negative words defining the situations' outcome. Half of the words were re-presented during post-learning sleep (i.e. they were cued). Recall of picture-word associations and subjective ratings of pleasantness and arousal in response to the pictures was tested for cued and uncued stimuli.

#### Results:

In the morning after cueing, cueing facilitated retention of positive and negative memories equally well in SAD patients and healthy controls. One week later, cueing led to reduced ratings of pleasantness of negative information in SAD but not in healthy controls. These findings were coincided by more pronounced EEG theta activity over frontal, temporal and parietal regions in response to negative stimuli in SAD patients.

### Conclusion:

On the background that pleasantness is one of the most fundamental gist representation of a stimuli, our findings indicate that the preferential abstraction of the emotional gist from negative information during sleep might represent one factor underlying the negative memory bias in SAD.



2884 - Sleep spindle density and its association with symptom domains in adolescents affected by Major Depression or Early-Onset Schizophrenia Spectrum Disorder

MD Miriam Gerstenberg

### Objectives

Adolescence is a vulnerable phase of brain maturation, also marked by increasing incidence of severe mental disorders such as early-onset schizophrenia spectrum disorders (EOS) and Major Depression (MDD). Sleep seems to play an active role in maturational and functional neuronal processes. Explicitly, the sleep spindle, a thalamocortically generated phasic oscillation between 12-15 Hz, seems to be associated with memory consolidation and specific symptom domains in patients suffering from mental disorders. Expanding promising findings in adults of markedly reduced sleep spindle density (SD) in patients diagnosed with schizophrenia, we recently showed that reduced SD could also be found in adolescents with EOS. However, symptomatology of emerging severe mental disorders often cuts across diagnostic entities. Thus, we aimed at identifying SD in adolescent patients with EOS and MDD and assessed their association with symptom domains and cognitive performance.

#### Methods

All-night high-density EEG (128 electrodes) was recorded in patients with EOS (n=13), MDD (n=15), and healthy controls (n=15). Automatic spindle detection was performed. First-hour and all-night SD (spindle number/min) for frequency ranges 12-15 Hz were analysed. Actual symptom severity of psychotic and depressive symptoms was assessed with the Positive and Negative Symptoms Scale (PANSS) and the Children's Depression Rating Scale (CDRS), respectively in all patients. Healthy controls underwent a telephone and questionnaire screening to exclude mental and sleep disorders and use of psychotropic medication.

#### Results

Ongoing analyses include group comparisons of SD and specific pooling of data to analyse associations of overlapping symptomatology with SD. In a first exploratory analysis, SD was correlated with PANSS total and subscores and CDRS total score. In the pooled sample of all patients higher PANSS total, positive sum, and general sum score were associated with lower SD in the frequency band (12.25-13.75 Hz). Controlling for multiple testing the associations of CDRS total score with SD did not reach significance level.

### Conclusion

Previous data in adults suggest spindle characteristics to be a promising biomarker to enhance the diagnostic processes especially for schizophrenia and to pave the way for new treatment approaches. Our data in adolescents may enrich these findings and shed light on the complex entanglement of maturation, a broad range of symptoms, and SD.



### S04-13: Clinical high risk of psychoses in child and adolescent psychiatry

PD Dr. Frauke Schultze-Lutter University Hospital Bern

Currently, two clinical high risk (CHR) approaches to the early detection of psychoses prevail: the ultra-high risk (UHR) criteria and basic symptom criteria. Both were developed and initially validated on predominately adult samples; their subsequent employment in child and adolescent samples was done with little consideration of developmental, i.e., age-related, issues. The important role of age, however, was recently highlighted by lower conversion rates to psychoses in clinical child and adolescent samples as well as by a higher prevalence and lower clinical significance of UHR and basic symptoms in children and adolescents of the community. Thereby, an age threshold of around the turn from early to late adolescence was indicated for UHR symptoms and of around the turn from adolescence to adulthood for basic symptoms. In our symposium, we will further investigate age-specific requirements in the definition and treatment of CHR states of psychoses. To this aim, first, age-effects on the presentation of UHR symptoms in a clinical sample will be explored, following the methods employed in community samples. Next, the impact of age on the presence and severity of "co"-morbid disorders will be explored in a clinical child and adolescent sample of CHR patients of the Bi-national Evaluation of At-Risk Symptoms in children and adolescents (BEARS-Kid) study. This will be followed by a critical review of diagnostically challenges in children and adolescents associated to disorders of childhood and adolescence. Finally, based on one-year follow-up data of the naturalistic BEARS-Kid study, the efficiency of different interventions with regard to CHR symptoms in children and adolescents clinically considered at CHR of psychoses will be examined. Overall, the symposium shall highlight the special efforts required for a precise and efficient prevention of psychosis in children and adolescence and convey ways to adequately address this topic for the time being.



## 3334 - The impact of age on the prevalence of attenuated psychotic symptoms in patients of an early detection service

PD Dr. Frauke Schultze-Lutter

Objectives: Compared to 16- to 40-year-olds, 8- to 15-year-olds of the community reported higher frequencies of perceptual and lesser clinical significance of non-perceptual attenuated psychotic symptoms (APS). We examined if a similar age effect is present in a clinical never-psychotic sample (N=133) referred to a specialized service for clinical suspicion of developing psychosis.

Methods: APS and brief intermittent psychotic symptoms (BIPS) were assessed using items P1-3 and P5 (non-perceptual), and P4 (perceptual) of the Structured Interview for Psychosis-Risk Syndromes, current axis-I disorders with the Mini-International Neuropsychiatric Interview and psychosocial functioning with the Social and Occupational Functioning Assessment Scale (score <71 indicative of at least some difficulty in social, occupational, or school functioning). Results: 64% reported APS (61%) or BIPS (7%); any perceptual APS/BIPS was reported by 43% and any non-perceptual APS/BIPS by 44%. In correspondence to the results of the community study, perceptual but not non-perceptual APS/BIPS were significantly more frequent in younger age groups below the age of 16 (8-12 yrs.: OR=4.7 (1.1-19.5); 13-15 yrs.: OR=2.7 (0.9-7.7); 20-24-year-olds as reference group). An age effect of APS/BIPS on presence of any current axis-I disorder (59%) or functional difficulties (67%) could not be detected. Yet, when APS onset requirements were met, the likelihood of a psychiatric diagnosis increased significantly with advancing age.

Conclusion: Overall, the replicated age effect on perceptual APS in this clinical sample highlights the need to examine ways to distinguish clinically relevant perceptual APS from perceptual aberrations likely remitting over the course of adolescence.



## 3335 - Comorbid disorders in young patients at risk for psychosis: First results of the BEARS-Kid Study

Dr. Maurizia Franscini

### **Objectives**

Recent studies showed a high prevalence of psychiatric comorbidities in at-risk populations for psychosis. Especially younger at-risk patients showed in former investigations high levels of comorbid symptoms. Here we analyse data on comorbid disorders in at-risk patients at baseline from the Bi-National Evaluation of At-Risk Symptoms in Children and Adolescents — BEARS-Kid Study. We examine whether there is a relationship between age and prevalence of comorbid disorders. In a second step, we investigate if there is a relationship between severity of the at-risk state and increased comorbidity.

#### Methods

Severity of illness, functioning and a broad range of psychopathological domains were assessed in 153 patients (8-18 years of age) with an at-risk for psychosis. Three at-risk criteria for psychosis were determined using the Schizophrenia Proneness Instrument for Children and Adolescents (SPICY) as well as the Structured Interview of Prodromal Syndromes (SIPS). We differentiated the basic criteria of Cognitive Disturbance (COGDIS), the cognitive-perceptive basic symptoms (COPER) and the attenuated positive symptoms (APS). Comorbid disorders were identified using the MINI International Neuropsychiatric Interview for children and adolescents (MINI-Kid).

### Results

At least one comorbid disorder was reported by 75% of study participants. Patients most commonly reported comorbid anxiety and affective disorders. Across all comorbid disorders we found a significant positive correlation between age of the patients and the number of comorbid disorders. Patients meeting the APS criteria showed an increased prevalence of comorbid disorders compared to patients without APS.

### Conclusion

Children and adolescents with at-risk symptoms for psychosis often show one or more comorbid disorders. In the current investigation, we found that the number of comorbid disorders is higher in older patients. There is also first evidence about a correlation between severity of at risk state and increased comorbidity. We will discuss in our presentation these first results and clinical implications.



## 3342 - Clinical high risk of psychoses and disorders of childhood and adolescence: diagnostic challenges

Dr. Petra Walger

Objectives: Clinical high risk (CHR) criteria and their constituent symptoms, mainly attenuated psychotic symptoms (APS) and basic symptoms, were defined and validated predominately in adult samples, and, consequently, little diagnostically differential consideration was given to symptoms and conditions typically found in disorders of childhood and adolescents, such as Asperger's Syndrome and Attention Deficit Disorder.

Methods: Illustrated by case vignettes, difficulties and possible solutions in disentangling symptoms that are part of disorders of childhood and adolescence from those used to define a CHR condition will be qualitatively examined.

Results: Idiosyncratic cognitive styles in combination with special interests in Asperger's Syndrome phenomenologically largely overlaps with unusual thought contents and/or disorganized communication as part of the APS criterion, while problems to focus attention in Attention Deficit Disorder might be confused with "inability to divide attention" and/or "captivation by details of the visual field" as part of the basic symptom criterion "Cognitive Disturbances". Yet, in CHR states, unusual thought contents rarely have the characteristic of an overvalued idea as have special interests in Asperger's Syndrome, and attention problems as part of the basic symptoms require a deviation from a formerly less disturbed "normal" level that is commonly not reported for developmental disorders such as Attention Deficit Disorders. Conclusions: Despite the phenomenological overlap between symptoms and conditions typically found in disorders of childhood and adolescents and some CHR symptoms, the detailed assessment of their course and the co-occurring symptoms enables a valid distinction between these symptoms.



## 3345 - Results of a prospective study on preventive interventions in children and adolescents at clinical high risk for psychosis

Dr. Stefanie J. Schmidt

Objectives: Indicated prevention approaches can prevent transition to a first episode of psychosis in adult patients at clinical high risk (CHR). However, for lack of studies, primarily preventive intervention was not recommended by the European Psychiatric Association for children and adolescents.

Methods: To find indication for efficient interventions in young CHR patients, we examined the treatment effects in a naturalistic 1-year follow-up study of 63 CHR patients (8-17 years) meeting ultra-high risk or basic symptom criteria at baseline. These were re-assessed for their outcome with clinical interviews and for meanwhile interventions with the Client Service Receipt Inventory. Outcome was categorized into (1) full or partial remission, (2) persistence, and (3) progression according to the course of CHR symptoms and functioning. Interventions were grouped into (I) none, (II) any psychological or pharmacological intervention, (III) preventive interventions administered in a specialized CHR service, and (IV) hospitalizations. Ordinal regression analyses were used to investigate effects of interventions and potential moderators (baseline level of CHR symptoms and functioning, comorbidity) on outcome categories.

Results: The mental problems of 71.4% of CHR patients had at least partially remitted, persisted in 6.3%, and progressed in 22.2%. Patients receiving preventive intervention (55.6%) did not show partial or full remission more frequently than those without (75.6%) or any other intervention (71.4% any, 55.6% hospital). Yet, these patients had already reported more CHR symptoms and comorbid disorders, and lower functioning at baseline.

Conclusions: Thus, current interventions might fail to sufficiently address the special needs of young CHR patients with severe mental-health problems.



## S04-14: Update on the neurobiology of anorexia nervosa and implications for clinicians

Prof. Dr. Beate Herpertz-Dahlmann RWTH Aachen University Clinic

This symposium is dedicated to new insights from neurobiological research into underlying mechanisms and principles of anorexia nervosa (AN) and what we can learn from it for clinical practice. First Mrs Janet Treasure, UK, will open by giving an overview over previous research regarding neuroprogressive changes in patients with AN getting worse as the illness protracts over time into chronicity and with longer illness duration being an important predictor for a more direworse outcome. Social cognition appears especially affected disturbing interpersonal functioning and impacting relations with close others. She suggests a new staging model of AN with implications for differential treatment of acute and chronic patients targeting a range of maintaining factors that emerge as a consequence of neuroprogressive changes from protracted starvation. Ms Ida Wessing, Germany, will try to elucidate one of those maintaining factors by focussing focusing on the motivational responses to food in patients with AN using highly timesensitive magnetoencephalography. She could show enhanced early bottom-up driven but reduced later more top-down controlled brain activity. This suggests enhanced first motivational orienting towards food stimuli which then are cognitively overregulated. Mr. Sebastien Guillaume, France, will present brand new epigenetic results reflecting which genes are activated and which are silenced by methylation in patients AN cross-sectionally and longitudinally. He found differentially activated genes in AN patients vs controls and during weight gain, differing between those patients with good vs bad prognosis. Involved genes pertain to brain development and plastisticity, potentially explaining underlying psychopathology. Finally, Mr Jochen Seitz, Germany, will present his talk on the cause and effect of brain volume loss in AN using human and animal data. He could show that brain volume loss is associated with neuropsychological deficits and worse clinical prognosis. New animal results show an almost 50% reduction in astrocyte number and volume in gray and white brain matter. As astrocytes directly influecence neuronal function, this could help explain neuropsychological deficits and give rise to astrocytes as new research target, e.g. by using estrogen replacement therapy.



## 3297 - Adding the dimension of time into models of Eating Disorders: The rationale of staging for eating disorders

Prof. Janet Treasure

Aim. To describe a model of eating disorders including the dimension of time. Background. A staging model predicts that chronic starvation leads to neuroprogressive changes which impact on the complexity of anorexia nervosa and the response to treatment. Results. Duration of illness is a strong predictor of outcome in anorexia nervosa. A protracted illness is associated with greater structural and functional brain changes. Social cognition is particularly impacted. This disturbs interpersonal functioning and close others react with high expressed emotion and /or accommodate and enable the illness which causes divisions and isolates the individual. A further hypothesis is that interventions may need to be adjusted for the stage of illness. Support for this hypothesis comes from the seminal trial which compared family and individual relapse prevention following inpatient treatment for anorexia nervosa. The duration of untreated illness impacted on both the overall outcome and moderated the response to family treatment. Conclusion. Over time anorexia nervosa becomes more complex and treatment may need to target a range of maintaining factors that have emerged as a consequence of neuroprogressive changes resulting from protracted starvation.



## 3299 - Neural processing of appetitive food stimuli in adolescent anorexia nervosa. Magnetoencephalographic evidence

Dr. Ida Wessing

Objectives: A main symptom of anorexia nervosa (AN) is reduced food intake. This could be linked either to a reduced motivational response to food or an enhanced cognitive control of the appetitive food response. In healthy participants, appetitive responses to food can be observed in enhanced amplitudes of event-related potentials (ERPs). In AN patients, findings regarding responses to food diverge: Increased early ERP amplitudes point to an increased appetitive response (Blechert et al., 2011), while behavioral data show a reduced approach reaction to food (Veenstra & de Jong, 2011). This can be explained by the hypothesis that early ERPs mirror a possibly automatic first motivational orienting towards food, whereas behavior is regulated via cognitive control.

Methods: Time-sensitive magnetoencephalography (MEG) was recorded in 21 AN patients and 21 healthy controls (HC) aged 12 to 18 years during a rapid serial visual presentation of pictures of high and low caloric food and neutral objects. Distributed neural sources were estimated based on L2-Minimum-Norm inverse source modelling. ANOVAs with the factors Food (high, low, neutral) x Group (AN, HC) were calculated for each time point and neural source and spatio-temporal cluster of significant effects after correction for multiple comparisons were determined. It was expected that AN patients show an increased early response towards food pictures (<300ms) followed by a reduced response in a later phase, which is more regulated via cognitive control (>300ms).

Results: AN patients showed a rather global attenuation of estimated neural source activity. Moreover, as expected, AN patients showed neural responses towards food that were enhanced in an early (73-147ms) and reduced in a late time interval (330-417ms) in brain regions associated with visual processing.

Conclusion: The finding of a rather global neural activity attenuation in AN might be a consequence of brain atrophy. Moreover, the finding that neural responses to food were enhanced in an early, more bottom-up driven, but reduced in a later, more top-down controlled stage of processing in AN suggests an enhanced first motivational orienting towards food stimuli, which is then cognitively overregulated.



### 3300 - Epigenetic Biomarkers of Anorexia Nervosa and Remission

Dr. Sebastien Guillaume

Introduction: Anorexia nervosa (AN) is a multifactorial disease with a strong genetic component, heritability estimated at 70%. Environmental factors affect gene expression by epigenetics process, including the variation of DNA methylation. Methylation is poorly studied in Anorexia nervosa (AN) and might affect the disease expression. We investigated methylation level in AN.

#### Method:

In a first step, we performed an analysis using Infinium® Human Methylation chip in a transversal cohort of 24 current AN patients, 24 AN remitters versus 48 healthy controls a genome-wide methylation analyses. We then explored the validity of these sites in a longitudinal cohort of 36 baseline current AN patients, for which we have two blood samples with one year interval at least, and where 18 patients are finally in remission and 18 other patients are still current AN

### Results:

We have identified differentially methylated sites, showing an up or a down level of methylation between patients and controls in the transversal cohort. In the longitudinal analyses, some of these sites were differentially methylated between the baseline and follow-up samples according to the remission or not. These sites are mainly involved brain development and plasticity. Conclusion:

This could depict epigenetic signatures of AN, that might help to identify biomarkers of diagnosis and prognosis fro



## 3301 - The neurobiology of brain volume loss in anorexia nervosa and its clinical consequences

Dr. Jochen Seitz

Introduction: Severe gray and white matter volume reductions were found previously in patients with anorexia nervosa (AN) that were linked to neuropsychological deficits while their underlying pathophysiology and impact on clinical prognosis remained unclear. For the first time, we analyzed the cellular basis of brain volume changes in an animal model (activity-based anorexia – ABA) and its clinical prognosis in a longitudinal study with AN patients. Methods: The volumes of the cerebral cortex and corpus callosum were determined in ABA animals and the number and area of neurons plus astrocytes and mRNA expression of cellular markers were analyzed. MRI data of 57 AN patients including longitudinal data of 28 patients at 1 year follow-up were included.

Results: In ABA rats, the volumes of the cerebral cortex and corpus callosum were significantly reduced and astrocyte numbers and volumes were reduced up to 63% whereas no changes were observed in neurons. The findings were complemented by an up to 60% reduction in astrocyte (GFAP) mRNA expression. Brain volume changes in patients were most strongly influenced by low body weight. White matter and cerebellar changes predicted weight at 1 year follow-up. Conclusions: Volumetric brain changes in ABA animals mirror those in human AN patients which are predictive for their clinical course. A decisive underlying cellular mechanism appears to be the reduction of astrocytes. Reduced metabolic and neuroendocrine modulation from astrocytes could help explain neuronal dysfunctions leading to symptoms of rigidity and impaired learning. Astrocyte loss could constitute a new research target for understanding and treating AN, e.g. by estrogen replacement therapy.



### **S04-15: Creative Therapies for Early Adolescent Patients**

Dr. Scott Palyo NYU

Creative Therapies for Early Adolescent Patients

Oral Presentation Introduction: Given the significant emotional and physical development that occurs in children as they become adolescents, therapy must also evolve to continue to engage and attune to these young individuals. The presentations will highlight different modalities for child psychiatrists to be more attuned to his or her patients and therefore improve the therapeutic alliance. The children discussed will have a variety of learning, speech and socialization obstacles and each having a unique experience relating to his or her current cultural setting. As a collaborative effort, the panelists will include mental health professionals from different disciplinaries and treatment settings including psychiatrists, a creative arts therapist and an occupational therapist in school, clinic and private practice settings.

Creativity itself is transformative. One of the most important aspects of improving the therapeutic alliance is through the conscious effort of fostering improved attunement in the doctor-patient dyad and ultimately the parent-child dyad. Four presentations will explore aspects of attunement with parent coaching, sensory integration, and explorations of culture and social ideals in different settings. The first presentation highlights the use of parent coaching with a same sex couple rearing a child of the opposite sex who had experienced significant non-verbal aggression relating to the misattunement. Third culture children, children who are from different backgrounds as their current environment, are becoming more prevalent in the world and an understanding of culture for parents and therapists are more important than ever. A case study highlights the struggles children in this group share throughout the world. Children from diverse backgrounds struggle with trying to acclimate to the home and social cultures. This is further explored through a particular case of a young girl with an eating disorder who experiences body dysmorphia relating to race. Given language barriers and delay in speech, non-verbal selfregulation is discussed to improve connection the physician-child dyad. The discussion will tie in the four cases relating to transition of age, cultural transitions, and collaboration between mental health disciplinaries from different settings of practice.



### 2524 - Creating Attunement through Intensive Parenting Skills Training

Dr. Scott Palyo NYU

Attunement is being aware of, and responsive to, another. This dyad is encouraged between and parent and child and is usually highly coveted by the child. Attunement is generally automatic, almost continual, and allows for a process of creating a therapeutic alliance and later deepening this relationship. Mis-attunement can lead to mild (and sometimes severe) disregulation that can continue as the child develops. With continual misattunement, the child has a difficult time maintaining a sense of self and loses an ability to be resilient.

Attunement and play will be explored through one case presentation in which a 13 year old child transitions into adolescence with 5 years of individual therapy highlighting play between the child and the same sex parents. In order to facilitate this, additional collaborative sessions needed to be held separately with the parents in order to coach them on play, engagement and attunement.

#### Methods:

The presentation will define attunement and mis-attunement and review a case presentation with information from individual therapy and parent coaching.

#### Results and Conclusions:

The review of the literature and practical clinical experience enables clinicians to better understand and engage in treatment of children and adolescents.

### Practice gaps:

Child and adolescent psychiatrists, especially in the early portion of their career, often overlook the value of attunement in the relationship with patients, especially given significant restraints in connections, such as 15-minute sessions.

### References:

The origins of attachment: Infant research and adult treatment. Beebe Beatrice and Frank M. Lachmann, New York & Hove, Routledge, 2014.

Stern, D.N. (2007). A Felicitous Meeting of Attachment and Relational Psychotherapy. Att: New Dir. in Psychother. Relat. Psychoanal., 1:1-7

### Learning Objectives:

Upon completion of this presentation, the attendees should be able to:

- 1. Understand the concept of attunement and connect examples in clinical practice with all patients and their families
- 2. To demonstrate interactive modalities of attunement that can increase the bond between the parent and child.



### 3532 - The Many Transitions of Third Culture Kids

Dr. Kristin Long Institute for Expressive Analysis

#### Introduction:

Children known as Third Culture Kids (TCKs) are children who have grown up in a culture other than that of their parents'. Sometimes this term also refers to children who are raised in a country different than the one on the child's passport. The first culture of such individuals refers to the culture of the country from which the parents originated, the second culture refers to the culture in which the family currently resides, and the third culture refers to the amalgamation of these two cultures. Because TCKs move from culture to culture prior to having the opportunity to fully develop their personal and cultural identity, they may develop problems relating to peers in their own ethnic groups. If we think about this from a place of early development, while these children are exposed to a greater variety of cultural influences, they often experience a prolonged adolescence.

TCKs are inclined to develop their sense of self while living abroad; combining a home culture with the culture of the world around them.

This talk will focus on the three-year treatment of Randi, a 19-year-old TCK, who is currently at a small liberal arts college in the United States. Having grown up in Egypt and other areas in the Middle East, she speaks Arabic and English with an American accent, but uses British phrases and spellings. She spent her last two years of high school at a private school in New York City, and continues to struggle with peer relationships.

### Methods:

The presentation will define TCK, review the development in research, and highlight one particular case in a therapeutic setting.

### Results and Conclusion:

The literature reviewed supports the enormous benefits of attuning and integration the different aspects of the many cultures of TCKs.

### Practice gaps:

As the world becomes more easily accessible to travel and people become displaced, this aspect of understanding TCKs is extremely important in the current world.

#### References:

In 1984, Sociologist Ted Ward said, "TCKs are the prototype citizens of the future." (McCaig, N. M. (1994): Growing up with a world view: Nomad children develop multicultural skills. Foreign Service Journal. Available online at: http://www.kaiku.com/nomads.html, 10-10-2012.)

Pollock, D. C., & Reken, V. R. (2009). Third culture kids: Growing up among worlds. Boston: Nicholas Brealey Pub.

### Learning Objectives:

- Upon completion of this presentation, attendees should be better able to:

  1. Define TCK and identify patients who fit this description

  2. Understand the importance of identifying this construct for children and families.



### 3533 - Race and Body Ideals for Teenagers with Anorexia

Dr. Simret Nanda West County Mental health and ANKA/Kaiser

#### Introduction:

Working as a child and adolescent psychiatrist at an eating disorder residential program, I am constantly learning novel ways to interact and treat the young adolescents with eating disorders. We see many different presentations of various eating disorders. The focus of treatment tends to be related to weight gain and family therapy for teenagers with anorexia nervosa, however, the demographics of children with eating disorders has evolved and providers must also understand cultural norms and a child's understanding of these norms.

The case presented will highlight a young girl from Asia who lives in California and engaged in restrictive behaviors, selective mutism and perseverated on depicting herself in artwork as someone with stereotypically Caucasian features. Throughout an attuned therapeutic alliance and exploring these aspects, the child began to engage in improved self-image and weight management. The understanding of race, culture and ideals needed to be discussed and included in the treatment plan in order to allow treatment of the primary issue of the eating disorder.

#### Methods:

Review of literature pertaining to anorexia nervosa, selective mutism and body dysmorphia when treating eating disorders. Case presentation and review of a patient's art work to interpret her body dysmorphic thoughts.

### **Results and Conclusions:**

The review of the literature and practical clinical experience enables clinicians to better understand and engage in treatment of children and adolescents.

#### Practice Gaps:

Understanding a teenager's body ideals is important to identify prior to engaging in weight management of teenagers with AN.

### References:

- 1. Journal of the American Academy of Child and Adolescent Psychiatry. Practice Parameter for the assessment and treatment of children and adolescents with eating disorders. James Lock, MD, PhD, Maria C. La Vie, MD.
- 2. Grant, J. E. & Phillips, K. A. (2004). Is anorexia Nervosa a subtype of body dysmorphic disorder? Probably not, but read on...Harvard Review of Psychiatry, 12(2), 123-126.

### Learning Objectives:

Upon completion of this presentation, attendees should be better able to:

1. Identify aspects of race and body ideals prior to engaging in weight management treatment with teenagers with eating disorders.



### 3534 - Strategies in Self-Regulation from an Occupational Therapy Perspective during the Transition from Childhood to Adolescence

Dr. Katherine Deats New York City

#### Introduction:

Working as an Occupational Therapist in the New York City Department of Education, I have come into contact with hundreds of children. The ability for children to self-regulate is one area that spans all diagnoses; all ages and is especially important during the transition from childhood to adolescence. Self-regulation is a person's ability to maintain their arousal level and level of alertness that is appropriate to the demands of the environment. If a child is given strategies to learn self-regulation techniques, then the transition to adolescence will be smoother. All people use various strategies to maintain self-regulation within their daily lives. Many of these strategies are sensory based and help our nervous systems sustain physiological regulation in order to participate in daily activities. Sensory processing is a key ingredient to a person's self-regulation.

Sensory information that our bodies interpret from the environment involves several senses. Visual input is our sense of vision, allowing us to interpret what we see. Auditory input is our sense of hearing, allowing us to understand what we hear. Tactile input, which is the sense of touch through our bodies, hand, and mouth, allow us to interpret what we feel. Less known is proprioceptive input, which gives our bodies information about body position and where our body is in space. Vestibular input relates to our body movements and changes in head position. Our bodies take in sensory data from the environment and process this information, which results in a behavioral response. When children have difficulty processing sensory information, challenges in self-regulation can develop.

In this discussion, I will offer specific examples of various techniques that can assist with self-regulation. As clinicians working with children, these techniques will give us a better understanding how sensory processing affects behavior, thus allowing us to better attune to the needs of our child patients. In addition, children who better understand self-regulation strategies will inevitably have a smoother transition into adolescence.

### Methods:

Review of the literature pertaining to neurophysiological development, characteristics of sensory dysfunction, and improving a connection with patients in relationship to teaching self-regulation.

### **Results and Conclusions:**

For all children, sensory integration is a significant factor in improved sense of self and in strengthened relationships with others.

### Practice gaps:

Even with so many children in psychiatric care that also receive occupational therapy, many child and adolescent psychiatrists often have minimal experience with understanding methods an

occupational therapist engages in to promote a sense of self and improve self-regulation.

### References:

Ayres, A. J. (1971). Characteristics of types of sensory integrative dysfunction.

American Journal of Occupational Therapy, 25, 329-334.

Empirical Evidence Related to Therapies for Sensory Processing Impairments. (n.d.). Retrieved from http://www.spdfoundation.net/resources/library/articles/effectiveness/

May-Benson, T.A and Koomar, J.A. (2010) Systematic review of the research evidence examining the effectiveness of interventions using a sensory integrative approach for children. American Journal of Occupational Therapy, 64(2); 403-413

Lane, S. & Miller, L.J. (June 2000) Sensory Integration, Sensory Integration Special Interest Section Quarterly, 23: 2-3

### Learning Objectives:

Upon completion of this presentation, attendees should be better able to:

- 1. Define and understand self-regulation.
- 2. Apply methods to promote self-regulation all the while promoting an attuned therapeutic relationship as well.



S04-16: Transition from adolescence to adulthood: The challenges to establish "transition psychiatry

Prof. Dr. Joerg Fegert

The German societies of child and adolescent psychiatry, psychosomatics and psychotherapy (DGKJP) and adult psychiatry (DGPPN) have agreed upon a consensus paper on transition from child and adolescent psychiatry to adult psychiatry. The symposium presents the motivation of the two professional societies to establish a working group on transition and reports about the results and the main content of the common position paper. There is a common presentation of the two presidents of the scientific professional societies and the main authors and the first authors of the paper. Therefore, we do not propose separated abstracts nor methods or result section to the four individual contributions.



2771 - Transition from adolescence to adulthood: The challenges to establish "transition psychiatry" - Part I

Prof. Dr. Joerg Fegert

Jörg Fegert gives an introduction to changing developmental aspects of the transition phase in adolescents and young adults in Germany. He reports about a prolongation of the developmental phase of "emerging adulthood" to the middle or the end of the 20th. These general developmental changes lead to the necessity of new treatment and care models for adolescents and young adults with psychiatric disorders.



2772 - Transition from adolescence to adulthood: The challenges to establish "transition psychiatry" - Part II

Prof. Dr. Harald J. Freyberger

Harald Freyberger gives an overview on specific model projects of cooperative care for adolescents and young adults in the transition phase.



2773 - Transition from adolescence to adulthood: The challenges to establish "transition psychiatry" - Part III

Prof. Dr. Dr. Tobias Banaschewski

Tobias Banaschewski discusses the chances and challenges of transition psychiatry focusing on potential consequences for child and adolescent psychiatry as a medical specialty.



2774 - Transition from adolescence to adulthood: The challenges to establish "transition psychiatry" - Part IV

Dr. Iris Hauth

Iris Hauth gives an introduction from the perspective of the scientific societies of child and adolescent psychiatry, psychotherapy and adult psychiatry and psychotherapy to develop a common statement on psychiatric treatment in the transition phase. She describes further perspectives of a cooperative working group from both professional societies that is currently dealing with more specific questions concerning the transition phase.



# S05-01: Adolescent nonsuicidal self-injury: Social and biological mechanisms

S05-01: Adolescent nonsuicidal self-injury: Social and biological mechanisms

Prof. Michael Kaess Universi of Heidelberg

Nonsuicidal self-injury (NSSI) is a common phenomenon among adolescents and represents an important marker of risk for both mental disorders and suicidal behavior. Despite growing clinical and research interest in NSSI during recent years, our understanding of underlying risk-factors and potential pathomechanisms is still limited. This symposium will present latest research findings on psychological, social and biological mechanisms that may contribute to the development and maintenance of NSSI. Data from clinical research reveal that psychopathological distress and personality pathology (in particular identity disturbances) seem to specifically contribute to NSSI. From a social perspective, the phenomenon of social contagion of NSSI, including the influence of social networks, will be a focus of the symposium. From a neurobiological perspective, new findings of alterations of pain perception and biological reactivity to pain as well as alterations of the neurobiological stress response systems will be presented. In addition to new data on social and biological mechanisms of NSSI, the symposium aims to integrate these findings into a comprehensive understanding of NSSI, and to translate latest research findings into recommendations for prevention and intervention in adolescent NSSI.



# S05-01: Adolescent nonsuicidal self-injury: Social and biological mechanisms

### 3195 - #Cutting — Non-Suicidal Self-Injury on Instagram

Dr. Rebecca Brown

Objectives: Among adolescents, social media is one of the most important media for communication. Non-suicidal self-injury (NSSI) is a common phenomenon in adolescence. Photographs depicting wounds caused by NSSI and communication about NSSI can be found on the internet frequently, on specific homepages as well as social media like YouTube, Flickr or Instagram. Even though Instagram is one of the most important social media platform among adolescents, NSSI has not yet been investigated systematically on Instagram.

Methods: All pictures (N=32,182 from N=6,721 user accounts) which were uploaded during the first four weeks of April 2016, and which were related to the most common German hashtags associated with NSSI (e.g. #ritzen, engl. '#cutting') were investigated. Of those, n=2,826 (from n=1,154 accounts) directly depicted wounds. Pictures directly depicting wounds, associated comments, and user accounts were rated for content. Associations between characteristics of comments and pictures were calculated. Also, weekly and daily trends of Instagram activity related to NSSI were analyzed.

Results: Most pictures showed mild to moderate injuries with wounds caused by cutting on arms or legs. Objects like razor blades were not frequently depicted. Pictures showing multiple methods of NSSI (e.g. cutting and burning) and those with higher wound grades generated increased amounts of comments. Very few comments were hostile, but also very few comments were offering help. Most comments were rather neutral discussions or empathetic statements. Most pictures were posted in the evening hours or in the early morning.

Conclusions: Investigation of a specific network of German hashtags related to NSSI on Instagram revealed a large number of pictures being posted daily. Social reinforcement seems to play a role, as more severe pictures received more attention. Social media platforms need to take appropriate measures in order to prevent triggering or contagious effects caused by displaying NSSI online.



# S05-01: Adolescent nonsuicidal self-injury: Social and biological mechanisms

## 3196 - Patterns of Altered Autonomic Function in Non-Suicidal Self-Injury and Related Psychopathology

Dr. Julian Koenig

Objectives: Non-suicidal self-injury (NSSI) is associated with negative affectivity and difficulties in emotion regulation that haven been shown to be related to autonomic nervous system (ANS) function. Research on ANS function in NSSI and related disorders such as Borderline Personality Disorder (BPD), however, predominantly exists in adults and evidence in adolescents engaging in NSSI is scarce. The talk will provide a comprehensive summary of the existing evidence and present latest findings from clinical and experimental studies.

Methods: The presentation draws on data collected in various clinical and experimental projects including predominantly female adolescents (12-17 years) fulfilling DSM-5 diagnostic criteria for NSSI and/or BPD. ANS activity was quantified by short- and long-term recordings of heart rate variability (HRV) during various conditions (i.e., resting state; pain induction; daily life) using ambulatory electrocardiography.

Results: While ANS function is not per-se altered in NSSI, adolescents engaging in NSSI with comorbid BPD show altered ANS function and reactivity to various laboratory tasks and stressors (including standardized pain). Evidence highlights the importance of reduced vagal-parasympathetic activity in BPD during resting states and its relation to difficulties in emotion regulation. First data illustrating the clinical usability of HRV to track dynamic symptoms and to monitor treatment outcome in youth psychopathology over time are presented.

Conclusion: Altered ANS function provides a psychophysiological mechanism underlying difficulties in emotion regulation and impulsivity also in youth psychopathology. HRV is of great interest to researchers focusing on potential mechanisms underlying psychopathology and its application to the study of developmental psychopathology may help to facilitate psychiatric assessment and treatment outcome.



## S05-01: Adolescent nonsuicidal self-injury: Social and biological mechanisms

### 3197 - The benefits of posting self-injury pictures on social media

Prof. Dr. Paul Plener

Objectives: Nonsuicidal Self-Injury (NSSI) is a common phenomenon in adolescence, which is also present on the Internet, especially on social media platforms. While a large body of studies have focused on functions of NSSI in real life, few studies have explored the reasons for online activities with regard to NSSI.

Methods: Based on a pilot social network analysis of the social media platform Instagram, so called "social giants" (users with many followers), who were posting pictures of NSSI were identified and contacted. We conducted semi-structured chat interviews with users who were willing to participate.

Results: Seventy-five users were interviewed. A clear theme of positive social reinforcement concerning posting pictures of NSSI was identified.

Conclusions: Whereas NSSI in itself primarily seems to fulfill an emotion regulation function, posting pictures of NSSI seems to elicit social positive reinforcement. The findings are discussed with regards to social contagion and the potential to trigger NSSI among other adolescents.



## S05-01: Adolescent nonsuicidal self-injury: Social and biological mechanisms

## 3198 - Hypothalamic-pituitary-adrenal axis, childhood adversity and adolescent nonsuicidal self-injury

Dr. Corinna Reichl

Objectives: Whereas childhood adversity (CA) and the hypothalamus-pituitary-adrenal (HPA) axis have been suggested to play a major role in the etiology of non-suicidal self-injury (NSSI), no study has thus far investigated its relations in interaction with adolescent NSSI.

Methods: We investigated CA (antipathy, neglect, physical, psychological, and sexual abuse) and indices of HPA axis activity (salivary and hair cortisol) in a clinical sample of 26 adolescents engaging in NSSI and 26 age- and gender-matched healthy controls (HC). We used standardized interviews for the assessment of CA (CECA), NSSI (SITBI-G), and axis I diagnoses (MINI-KID). Salivary cortisol sampling was surveyed using a monitoring system and instructed via telephone calls.

Results: Adolescents engaging in NSSI exhibited significantly higher cortisol awakening responses compared to HC. No differences were found with respect to the diurnal slope or hair cortisol. In the presence of CA, healthy adolescents showed flatted diurnal cortisol slopes while those engaging in NSSI exhibited significantly steeper ones.

Conclusions: Our findings indicate that adolescents engaging in NSSI may exhibit a stronger cortisol awakening response, potentially in expectation of strain. However, elevated cortisol levels may not be maintained throughout the day, especially among adolescents with a history of CA.



## S05-01: Adolescent nonsuicidal self-injury: Social and biological mechanisms

### 3490 - From Identity Confusion to Personality disorders among Turkish Adolescents'

Prof. Dr. Füsun Çuhadaroğlu

From Identity Confusion to Personality Disorders in Adolescence

Aim: The aim of this study is to investigate the identity development in Turkish adolescents, to determine the prevalence and factors related to identity confusion and to analyse the relation between identity confusion and personality disorders.

Method: AIDA-Turkey (Assessment of Identity Development in Adolescence —AIDA- adapted for Turkish adolescents), Identity Status Assessment Form, The Schedule for Affective Disorders and Schizophrenia for School Age Children Present and Life Time Version (K-SADS-PL) and Structured Clinical Interview for DSM-III-R Personality Disorders (SCID-II) were given to a clinical sample of adolescents to determine the characteristics of the identity development, identity confusion and possible personality disorders. Clinical data are compared to the data of a sample of high school students who were again evaluated by AIDA-Turkey. Results: Age range is 12-18 years . The data is analysed by using SPSS. The results will be discussed in the light of other AIDA literature and the factors which are found related to the development of personality disorders will be discussed.

Keywords: AIDA, adolescence, identity, identity crisis, identity confusion, identity diffusion, personality disorders, identity scale



## S05-02: Investigating mentalization at different stages and in different types of adolescent psychopathology

Professor Patrick Luyten

Mentalization encompasses a set of social cognitive processes critical for adaptation in everchanging social worlds. Importantly, these skills are sharpened and fine-tuned during adolescence, a period where vulnerability to psychopathology emerges. In this symposium, fours speakers will present data suggesting that impairments in mentalization during adolescence critically contributes to the expression of psychopathology.

In the first presentation, Bales and collaborators present how clinical experience and research performed in mentalization-based programs in the Netherlands has lead to the formulation of a clinical staging model of borderline personality disorder. Importantly, a range of clinical, mentalization-focused interventions adapted at different stages are highlighted in the presentation

In the second presentation, Ballespí and collaborators present data from a Spanish study on more than four hundred adolescents and their parents. Their results suggest that impairments in mentalizing incur proneness to general psychopathology. Importantly, the author further present their results linking youths' clinical profiles and parents' capacity to mentalize.

In the third presentation, Morosan and collaborators investigate self-other and affective-cognitive mentalizing dimensions in a group of incarcerated adolescence in Switzerland. The study provides important insights into the relationships between different dimensions of mentalizing during adolescents in the development of severe externalizing problems.

Finally, in the last presentation, Derome and collaborators experimentally investigates the relationship between proneness to depersonalisation and personality traits (borderline, schizotypal) in Swiss adolescence. They further examine the link between the brain's functional connectivity, during rest, and general psychopathology as well as mentalizing capacity. This study presents an innovative approach to combine neuroimaging, experimental and clinical levels of investigations.



3202 - The development of a range of mentalizing interventions according to clinical stages of Borderline PD in adolescents: MBT early and IOP MBT-A

Dawn Bales

Borderline personality disorders (BPD) is a severe condition that often remains unnoticed or under-diagnosed until adulthood. The field of other severe mental health disorders, like psychosis and autism, has shown that the duration of untreated illness has a profound impact on subsequent prognosis and quality of life. This presentation will draw upon these experiences to formulate a clinical staging model for borderline personality disorder. We hypothesize that BPD as known from adult studies might represent a further stage in the development of the disorder and that earlier stages can be detected reliably earlier in development. In accordance with this model, a range of mentalizing interventions will be presented, aimed at intervening at different stages of BPD. MBT early and IOP MBT-A, mentalization-based treatment programs developed at the Viersprong for adolescents, will be presented shortly with pilot data.



## 3204 - Psychopathology and functioning differences in adolescents with high and low level of mentalizing capacity

PhD Sergi Ballespí

Department of Clinical and Health Psychology, Universitat Autònoma de Barcelona

Background: Mentalizing (MZ) problems have been associated to a variety of specific disorders. This suggests that MZ can be an important factor for general mental health.

Objective: The aims of this study are to analyse to what extent 1) MZ deficit is associated to general psychopathology, 2) high MZ is related to better personal, social and role functioning, and 3) MZ deficit in parents is associated to poor mental health and functioning in children.

Methods: From an initial sample of 462 adolescents (12-18 years old, M=14.8, SD=1.7) and their parents, groups of High and Low MZ were created on the basis of MZ measures obtained from a multimethod perspective.

Results: Low MZ adolescents present higher levels of General and Internalizing psychopathology, but not of Externalizing problems. High MZ capacity is related to a positive personal, social, and academic adjustment. High MZ level predicts better self-image, higher resilience, more emotional stability and a more secure attachment style. Low MZ is associated to a higher tendency to report somatic complaints. Finally, MZ deficit in parents is also associated to poorer mental health and lower functioning in children, thus suggesting a trans-generational perspective of MZ abilities for offspring's general mental health.

Discussion: Overall, results provide evidence for the hypothesis that MZ could be a general factor of mental health, not only protecting from psychopathology but also fostering good functioning in different areas. Findings also suggest new nuanced hypotheses about the relationship between MZ and general mental health, and point out the need to explore the potential impact of different dimensions of MZ and relevant moderators.



## 3208 - Assessing self-other and affective-cognitive mentalizing dimensions in relation to delinquent manifestations during adolescence

Larisa Morosan Developmental Clinical Psychology Unit, Faculty of Psychology, University of Geneva

Objectives: Mentalizing, defined as interacting dimensions sustaining the capacity to infer affective and cognitive mental states in oneself and in others, represents a critical mental buffer moderating delinquent behaviors. In the present studies, we aimed to investigate the relationships between the self-other, cognitive-affective, and internal external dimensions of mentalizing and delinquent manifestations during adolescence.

Method: One-hundred and thirty male adolescents (13 to 18 years old; 51 incarcerated adolescents (IA) and 79 community adolescents (CA)) took part in our studies. Affective other mentalizing was assessed using a dynamic and multimodal emotion recognition task, presenting short videos, in which trained actors express 14 emotions. Cognitive other mentalizing was investigated using a perspective-taking task, in which the participants had to follow the directions of another person, whilst taking into consideration his perspective. Internal-external mentalizing was investigated using a source-monitoring task, requiring the participants to recognize previously self-generated stimuli (words and non-words) and attribute them an internal or external source (items read silently or aloud).

Results: The results of the first study suggest that, compared to CA, the IA present lower abilities in the emotion recognition task, through lower scores for the recognition of interest, anxiety, and amusement. In addition, the IA presented lower perspective taking abilities. The results of the source monitoring study indicate that the two groups of adolescents present different patterns of source-monitoring errors. The IA presented greater externalizing errors (silent items attributed as read aloud) in the items requiring greater cognitive effort, whereas the community adolescents presented the reversed pattern, showing a greater internalizing bias.

Conclusions: Incarcerated adolescents present impairments in self-other, cognitive-affective, and internal-external mentalizing dimensions tested experimentally. These elements should be taken into consideration in the planning of evaluation and intervention strategies for delinquent adolescents. Future studies need to investigate the longitudinal relationships between the mentalizing dimensions and the course of delinquent behavior during adolescence.



## 3211 - Investigating resting state networks in adolescents with depersonalisation illusions in the mirror-gazing task

#### Melodie Derome

Developmental Clinical Psychology Unit, Faculty of Psychology, University of Geneva

### Objectives:

The mirror gazing task (MGT) is employed to investigate anomalous self-experiences (ASE). This study's first objective was to further investigate the link between ASE and personality traits associated with dissociation (schizotypal and borderline traits). Secondly we aimed at characterising how connectivity in resting state networks (RSNs) differed in adolescents reporting depersonalisation during the MGT.

#### Methods:

88 adolescents (45 males; M=16,78,SD=2,41) were split into 2 groups, age- and gender-matched, whether they reported depersonalisation (ASE+; n=35) or not (ASE-; n=53) on the MGT. Participants filled in self-reports assessing schizotypal personality (SPQ) and borderline (BPI) traits, and underwent an 8 minutes resting-state functional MRI procedure (rs-fMRI). A group level Independent Component Analysis (ICA) was conducted and 15 RSNs components were retained. Voxel-wise inter-group differences within RSNs were examined as well as between-network connectivity.

### Results:

As hypothesized, positive (U=729, p=.045) and disorganised (U=723.5, p=.039) schizotypy dimensions were associated with increased propensity to experience ASE. Preliminary results of group comparisons for functional connectivity yielded significant differences for higher visual (ASE->ASE+), sensorimotor (ASE+>ASE-), anterior (ASE->ASE+) and ventral (ASE+>ASE-) default mode networks. Furthermore, an increased connectivity was found between left central executive and precuneus networks as well as between higher and primary visual networks in the ASE+ group when compared to ASE-.

#### Conclusions:

Decreased and increased functional connectivity appears to distinguish adolescents reporting depersonalization during the MGT, and could help identify later risk for psychopathology. Further analyses will report on the links between proneness to depersonalization, mentalizing, and general psychopathology.



S05-03: Swiss Model Project for Clarification and Goal-attainment in Child Welfare and Juvenile Justice Institutions (MAZ. Study)

Marc Schmid

The aim of the symposium is to give various perspectives of the Swiss Model Project for Clarification and Goal-attainment in Child Welfare and Juvenile Justice Institutions (MAZ. Study).



## 3148 - Diagnostic performance of the MAYSI-2 in a sample of Swiss youths in welfare and juvenile justice institutions

Laura Leenarts

#### Objective

There is growing evidence that it is important to have well-standardized procedures for identifying mental health needs of youths in welfare and juvenile justice institutions. One of the most widely used tools for mental health screening in the juvenile justice system is the Massachusetts Youth Screening Instrument-second version (MAYSI-2). This presentation will elaborate on a) the relationship between the MAYSI-2 and the Schedule for Affective Disorders and Schizophrenia for School-Age Children, Present and Lifetime version (K-SADS-PL) in a sample of Swiss youths in welfare and juvenile justice institutions using a cross-sectional design and b) the diagnostic performance and optimal cut-off scores of the MAYSI-2.

#### Methods

Participants were 297 boys and 149 girls recruited from 64 youth welfare and juvenile justice institutions in Switzerland. The MAYSI-2 was used to screen for mental health or behavioral problems that could require further evaluation. Psychiatric classification was based on the K-SADS-PL.

### Results

The MAYSI-2 scales generally related well to their corresponding homotypic (cluster of) psychiatric disorders (e.g. the alcohol/drug use scale identified the presence of any substance use disorder). Several MAYSI-2 scales were also related to heterotypic (cluster of) psychiatric disorders (e.g. the MAYSI-2 scale alcohol/drug use was positively related to any disruptive disorder). Furthermore, the results revealed gender differences in the relationship between the MAYSI-2 and K-SADS-PL. ROC analyses revealed that nearly all homotypic mappings of MAYSI-2 scales onto (cluster of) psychiatric disorders revealed above chance level accuracy. The optimal 'caution' cut-off scores were, for several MAYSI-2 scales, comparable to the USA norm-based 'caution' cut-off scores. For some MAYSI-2 scales, however, higher optimal 'caution' cut-off scores were found.

### Conclusion

The MAYSI-2 seems to serve well as a first-stage screen to identify service needs for youths in Swiss welfare and juvenile justice institutions. Its effectiveness to identify the presence of (cluster of) psychiatric disorders differs between genders. In addition, with adjusted optimal 'caution' cut-off scores, the MAYSI-2 screens potential emotional or behavioral problems well in a sample of Swiss youths in welfare and juvenile justice institutions. However, as for choosing the optimal 'caution' cut off score for the MAYSI-2, both language and gender seems to be of importance.



## 3149 - Identifying Gender-Specific Predictors of Externalizing Behaviors in Youths: A 1-year Longitudinal Study

Stéphanie Habersaat

Objectives: Age of onset, callous-unemotional (CU) traits and anger dysregulation have separately been proposed as relevant factors in explaining the developmental pathways leading to externalizing behaviors. However, no study examined their specific and mutual influence in predicting externalizing symptoms across gender. This study aimed to investigate the respective influences and interactions of age of onset, CU traits, and anger dysregulation (T1), in predicting externalizing behaviors over a year (T2) in adolescent boys and girls. Methods: Among the 177 girls and 359 boys from welfare and justice institutions that were evaluated at T1 (Predictors: age of onset, CU traits, and anger dysregulation; Controlled variables: non-verbal reasoning and trauma exposure), two thirds still participated in the follow-up (T2: externalizing behaviors assessed by multiple informants).

Results: Hierarchical regression analyses revealed that a higher exposure to trauma ( $\beta$  =.27, p =.001), a lower age of symptoms onset ( $\beta$  =-.51, p <.001), and higher anger dysregulation ( $\beta$  =.71, p <.001) at T1 predicted higher externalizing behaviors at T2 in girls. In boys, higher anger dysregulation ( $\beta$  =.31, p <.001) and higher CU traits ( $\beta$  =.25, p <.001) at T1 were significant predictors of higher externalizing behaviors at T2.

Conclusion: The identification of gender-common and gender-specific predictors of later externalizing behaviors may help designing more gender-specific prevention and treatment programs aiming at reducing the negative impact of externalizing behaviors.



## 3151 - Gendered negative emotions lead to delinquency in institutionalized youths: A 1-year longitudinal study

Stéphanie Habersaat

Objectives: To investigate the gender-specific effects of stress, anger and depression in predicting delinquency over a year (T1 and T2) in a representative sample of institutionalized adolescents.

Methods: Three hundred and ninety-nine youths aged from 11 to 21 years from welfare and justice institutions participated in the study. At T1, the Life event scale was used to measure stress, and the Massachusetts Youth Screening Instrument-second version was used to assess anger and depression symptoms. At T2 (1 year later), the Child Behavior Checklist (CBCL) was used to measure delinquent behaviors (self- and other-report).

Results: Hierarchical regression analyses revealed that a higher levels anger significantly explained more self-reported delinquent behaviors at T2 ( $\beta$ s >.42, ps <.01) in both genders. Lower scores in depression and anxiety symptoms at T1 significantly predicted more self-reported delinquent behaviors at T2 ( $\beta$  =-.34, p <.05), but only in girls. Additionally, when delinquent behaviors were reported by the youths' assigned caseworker, a higher level of anger still predicted more delinquent behaviors in both genders at T2 ( $\beta$ s >.39 ps <.01), and lower level of stress at T1 predicted more delinquent behaviors at T2 ( $\beta$  =-.20, p <.05), but only in boys. In girls, lower scores in depression-anxiety symptoms at T1 predicted more delinquent behaviors at T2 ( $\beta$  =-.33, p <.05).

Conclusion: Although anger was evidenced as an important predictor of later delinquency (either self-reported or reported by the youth's assigned caseworker) in both genders, depression has some importance in predicting later (either self-reported or reported by the youth's assigned caseworker) delinquency, but only in girls. Of note, stress was also related to delinquency (rated by the youth's assigned caseworker), but only in boys. These results might have implications in terms of prevention of delinquency.



### 3152 - Psychopathology and offending in juveniles in residential youth care in Switzerland

### Cyril Boonmann

Objectives: To examine the relationship between psychopathology in juveniles in residential youth care in Switzerland and offending in adolescence and young adulthood. Methods: The sample consisted of 347 juveniles aged 12-18 years in residential youth care institutions in Switzerland between 2007 and 2011. More than half of the sample was placed under civil law (61.7%), 16.1% under penal law and 22.2% for other reasons (e.g. voluntarily). Psychopathology was examined with the Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children–Present and Lifetime version (K-SADS-PL), a semi-structured interview for mental disorders. Conviction rates were requested at the Swiss Federal Statistical Office.

Results: In total, 75.4% of the sample met the criteria for at least one mental disorder and comorbidity was the rule rather than the exception (44.5.0%). In general, externalizing disorders were more prevalent than internalizing disorders; the most common externalizing disorders was conduct disorder (31.5%), whereas anxiety disorders (24.5%) were the most common internalizing disorders. Furthermore the prevalence of substance use disorders was 15.5%. With regard to conviction rates, almost half of the sample was convicted at least once (46.7%) and 30.5% were convicted two or more times. The relationship between psychopathology and (re-)convictions will be presented and elaborated on at the ESCAP 2017 Congress in Geneva. Conclusion: Both psychopathology and conviction rates are highly prevalent in this sample of juveniles in residential youth care in Switzerland. Results regarding the relationship between psychopathology and (re-)convictions will be discussed in more detail, with emphasis on the similarities and differences between those juveniles placed under civil law and penal law.



S05-04: SYNAPSY SYMPOSIUM: Understanding mechanisms of change in children with ASD who receive intervention

Prof. Dr. Marie Schaer University of Geneva

Autism spectrum disorders are a heterogeneous group of pervasive neurodevelopmental disorders that affects up to 1 in 68 children. ASD manifest with deficits in social communication, and the presence of repetitive behaviors or restricted interests, appearing before the age 3. To date, behavioral interventions have proven effective to get the most optimal long-term benefits, either with early intensive intervention for preschoolers or cognitive remediation for school-age children and adolescents with ASD. However, we still don't understand well the neurodevelopmental mechanisms by which these interventions work. In this symposium, researchers will present different ways of measuring how much and by which mechanisms behavioral intervention might help affected children.



3331 - The low intensive, complex, naturalistic developmental behavioural intervention A-FFIP: one year case-control, and two-year pre-post effects

Prof. Christine Freitag University Hospital Frankfurt, Goethe-Universität

Objective: The Autism-specific Frankfurt early intervention program A-FFIP has been developed and manualized over approximately 8 years as a low intensive early intervention with 2 hrs / week 2:1 work of two therapists with one child, also involving parents and kindergarten teachers. It is based on current knowledge on early development of typically developing and children with Autism Spectrum Disorder, and implements naturalistic behavioural methods increasing the child's motivation to learn, play, socially interact and communicate. Here, we present 1-year case-control data of N=40 toddlers and preschool age children with ASD (N=20 receiving A-FFIP, N=20 matched children receiving treatment as usual; TAU), and 2-year prepost data on N=27 ASD children receiving A-FFIP, with a mean age of 55.5 (SD 12.2) months at start of intervention.

Methods: Children were diagnosed according to gold standard by ADI-R and ADOS. The following outcome measures were obtained: ADOS-severity score (blinded), Social Responsiveness Scale (SRS), Child Behaviour Checklist (CBCL), standardized developmental (Bayley-II) or intelligence (SON 2½-7) test (blinded), Vineland Adaptive Behavior Scales.

Results: Case-control data showed a medium effect size of improvement of autism specific symptoms by the ADOS severity scores (ES=0.61 A-FFIP compared to TAU; p=0.071). Two-year pre-post effects showed a pre-post ES=0.67 (p=0.011), which is similar to the 2-year effects of the high-intensity Early Start Denver Model Intervention. Cognitive gains also were achieved, however, with a smaller effect size.

Conclusions: The low-intensity, complex, naturalistic behavioural intervention A-FIPP, which has been manualized (Teufel, Valerian, Wilker, Freitag: Autismus-spezifische Therapie im Vorschulalter. Berlin, Springer 2017) shows encouraging results, especially with regard to improvement of core autistic symptoms, which need to be studied by a larger scale randomized controlled trial.



3337 - Using eye-tracking to measure social cognition in preschoolers with ASD, developmental trajectories, and changes following early intervention

Nada Kojovic Geneva University

Background: Eye-tracking allows studying social cognition in autism, in a non-invasive manner. Numerous studies using this technique have highlighted atypical visual exploration patterns in individuals with ASD, e.g. less focus at eyes and faces compared to typically developing (TD) individuals. For the sake of ecological validity eye-tracking studies measuring visual exploration during viewing complex naturalistic social interactions are required.

Objectives: Our aim was to define age-appropriate dynamic "norms" of visual exploration of complex social scenes, based on a group of TD children, for quantitative comparison with children with ASD. We then use it to quantify change in visual exploration in children with ASD with respect to age and intervention and explore visual exploration pattern in children showing favorable evolution.

Methods: A 3-minute cartoon was displayed on a Tobii eye-tracker device for 37 ASD males (aged 3.9±1.3) and 28 TD males (aged 3.1±1.3). Inspired by the concept of a heatmap, for each frame of the video we created "normative" gaze pattern distribution by employing kernel density distribution estimation on the raw gaze data of TD individuals. For each patient we then calculated the "distance" of gaze coordinates form this "norm". Thus we obtained one measure per frame of Proximity from the "norm", which was then averaged for the duration of the video. Higher values indicate the visual exploration of the individual is being more similar to the one of TD subjects. The "proximity" was further correlated with different clinical behavioral data.

Results: We found positive correlation between the proximity from the "norm" and direct measures of cognition (p=.008), language understanding (p=.01), language expression (p=.007) and imitation skills (p=.02). We also observed positive correlation between this measure and indirect measure of communication (p=.004) and socialization skills (p=.001), as parents reported them. Finally, a tendency toward negative correlation between the proximity and the severity of autistic symptoms was observed (p=.051).

Conclusion: Our results suggest that our method can be used as a valid measure for quantifying the dynamic visual exploration of complex social scenes based on a group of TD children, providing an age-appropriate manner to measure deviances in social cognition development in age-matched children with ASD. We further intend to use this measure in a longitudinal design.



3339 - Alteration in the neural processing of dynamic animated social interactions and naturalistic stimuli depicting biological motion in young children with ASD measured by high-density EEG

Holger Sperdin University of Geneva

OBJECTIVES: The social motivation hypothesis (Chevallier, Kohls et al. 2012) posits that the specialized brain functions implicated in social information processing are developing differently in individuals with autism leading to a reduced interest for socially relevant stimuli at an early age already. It is currently unknown how early in the development brain network alterations in response to social stimuli can be observed. Here, we aim to characterize the differences in the social brain network activations between very young children with ASD and TD controls when watching dynamic visual stimuli having social contingencies.

METHODS: In experiment 1, we used EEG and high-resolution eye-tracking to study differences in the neural processing of dynamic cartoons containing human-like social interactions between young children with ASD and age-matched TD controls. In experiment 2, we used EEG to study alterations of functional connectivity between ASD and TD toddlers when watching naturalistic stimuli depicting biological motion. We expected impaired activation and altered connectivity in brain structures implicated in social information processing in the young children with ASD.

RESULTS: In experiment 1, we found alterations in activation in the toddlers with ASD within brain regions of the social brain such as the prefrontal and cingulate cortices, the premotor, the parietal, the temporal, the occipital and cerebellar regions compared to TD children. These differences were stronger in children with control-dissimilar gaze patterns. In experiment 2, we observed a different driving in the toddlers with ASD within specific brain regions of the social brain such as the frontal cortices, the superior temporal gyrus and the dorsal anterior cingulate cortex. We also observed dissimilar network connectivity patterns between the groups. Importantly, correlation analysis between summed outflow and severity scores revealed a more prominent down-drive of activity within several regions in the most affected ASD toddlers.

CONCLUSIONS: The cumulated findings indicate the presence of functional impairments in brain regions involved in social visual information processing at an early age in autism spectrum disorders. This suggests that network alterations of the social brain may be present at a young age, justifying further investigation on how early therapeutic interventions targeting social orienting may help to remediate social brain development.



### 3346 - Positive Emotions in Individuals with Autism Spectrum Disorder and Possible Avenues for Interventions

PhD Andrea Samson Swiss Center for Affective Sciences, University of Geneva

Autism Spectrum Disorder (ASD) is characterized by severe deficits in social interaction and communication and increased restricted and repetitive behaviors. However, emotional disturbances and associated comorbidities are of high prevalence in this population and are one of the main reasons why parents of children with ASD reach out for help. This talk will give an overview on emotional difficulties in ASD with a particular focus on positive emotions. Several studies using a multi-method approach to study positive emotions including humor will be reviewed in this talk. The findings will be discussed in light of a new psycho-educative emotion regulation training that aims at increasing positive emotions and reducing problematic behaviors in individuals with ASD.



**S05-05:** Culture and Access to Care

Dr. Scott Palyo Langone NYU School of Medicine/NY Medical College

When treating families, culture is a significant factor to keep in mind while engaging children and their families. Four child psychiatrists from New York City will discuss different aspects of culture, obstacles and solutions to facilitate treatment with youth. Cultural differences can hinder treatment and there could be situations of mental illness, violence, abuse, neglect, and other traumas that are not addressed especially in disadvantaged and transitioning families from one country to another.

Primary care settings are likely the first medical setting where families are served. This is extremely important for families to have referrals to psychiatrists if needed. Dr. Shapiro's role at two medical facilities in Harlem are crucial in assessing mental health and assisting with reports for asylum and bridging mental health care. As trauma should be assessed, Dr. Palyo will explore important interventions in creating an alliance with caregivers of children with trauma. Dr. Oatis will discuss aggression in inner city youth with highlights contrasting micro and macroagression and appropriate interventions. As additional and higher level care interventions may be necessary, Dr. Ivanov will discuss the treatment philosophy at a day program that provides care to disadvantaged families and embraces diversity in order to lessen stigma about mental health.

Each presenter will speak for 15 minutes including discussion.

Keywords: (minimum 2) Collaborative Care, Assessment, Trauma, Policy/Advocacy

Language: English



### 2530 - Engaging Caregivers To Improve Treatment of Children with Trauma

Dr. Scott Palyo Langone NYU School of Medicine/NY Medical College

Clinicians spend a great deal of time engaging families in order to improve access to treatment for children. These interventions can include social services, location of treatment site, and cultural sensitivity requests. When a child has been a victim of trauma there are additional obstacles in order to engage the family and improve access to care.

The presentation will discuss general barriers to treatment-language, stigma, finances, continued traumatic settings and legal issues-but also explore a significant factor, the caregiver. These caregivers may have a history of his/her own trauma or current trauma; may not believe his/her child; and feel pressure to engage in treatment without understanding the need.

The presentation will present material from the Safe Horizon Counseling Center, the only licensed mental health clinic in New York specializing in treatment of survivors of crime. Caregiver engagement interventions have shown to improve attendance, access to care for the caregiver or other children in the family, create safety plans and lessen engagement with perpetrators.

#### Methods:

The presentation will briefly discuss general barriers of treatment but highlight through cases how children with PTSD face additional hurdles in obtaining access of care.

#### **Results and Conclusions:**

The review of the literature and experience in a trauma focused clinic show that addressing caregiver concerns and engaging the caregiver significantly improves the ability for children to receive appropriate psychiatric interventions.

#### Practice gaps:

Victims of crime, especially if the victim is not a citizen of the country, are hesitant to seek and maintain treatment due to numerous barriers as well as providers may not consider trauma in general evaluations. This presentation helps facilitate improvement in understanding obstacles and improving access to care.

### References:

Levenson, Jill S., Richard Tewksbury, and Janet DiGiorgio-Miller. "Experiences of nonoffending parents and caretakers in child sexual abuse case." Southwest Journal of Criminal Justice 8.2 (2012).

Ingoldby, E.M. "Review of Interventions to Improve Family Engagement and Retention in Parent and Child Mental Health Programs." Journal of Child and Family Studies. October 2010, 19(5), 629-645.

Learning Objectives: Identify barriers to trauma focused care. Highlight ways to improve an alliance with caregivers of children with a trauma history.



## 2531 - Mental Health Services Delivery to Special Populations - Minorities, Emigrants, and LGBT Youth

Dr. Iliyan Ivanov

Adolescents from ethnic minorities, emigrant families or LGBT youth might be exposed to high rates of adversity and stress that can trigger the development of internalizing disorders like depression and anxiety, trauma related syndromes (e.g. acute stress reactions, complex PTSD) and substance use. Seeking out professional help is hampered by cultural stigma about mental health, concerns about undocumented legal status, eligibility for medical coverage, but also reluctance within the family structure to acknowledge psychological conditions as "illness" or "disorders" that require medical treatment.

#### Methods:

The presentation will discuss the treatment philosophy of a specialized treatment program in NYC call Comprehensive Adolescent Rehabilitation and Education Services (CARES) that combines various mental health treatments with educational services. The program is designed to provide care to disadvantaged families and welcomes youth of color, from minority backgrounds who suffer with depression, anxiety, substance use disorders and gender dysphoria. These treatment approaches will be illustrated by a brief case presentation.

#### **Results and Conclusions:**

We will discuss the principals of The Minority Stress Mode I (Meyer et al., 2003, Psych Bull) and its theoretical and practice applications. We will also discuss how treatment philosophies implemented at CARES can facilitate to overcome barriers to care.

### Practice gaps:

Persons from ethnic minorities, immigrants and LGBT youth may experience many limitations in relation to access to care. As minorities face unique stressors related to their status as a minority (i.e. not a general stress that all people face), which are also chronic (i.e. related to relatively stable social and cultural structures) and might be socially based (i.e. come from social institutions & structures beyond the individual) it is imperative that clinicians are 1) aware of the minorities unique status in relation to stress, and 2)acquire new knowledge as to how to provide most efficient care to these patient populations. This presentation aims to improvement in clinicians' understanding on these important topics.



### 2532 - Immigrant Youth and Families Seeking Asylum

Dr. Gabrielle Shapiro

To expose the attendees to the experiences of youth and parents fleeing war and trauma and discuss the barriers to treatment as well as challenges of navigating the transition to a new country and culture.

#### Methods:

A brief review of the psychosocial history of the patient and family will be presented including treatment history, video recordings of the patient and family discussing their experiences will be shown to the audience. Treatment challenges will be delineated as will successful treatment strategies and why they produced positive outcomes.

#### **Results and Conclusions:**

Working with Immigrant Youth and Families seeking Asylum after suffering the atrocities and trauma of violence and in some cases war, is a special challenge for the child and adolescent psychiatrist.

This case presentation will include videos of the child and parent discussing their experiences in their home country, fleeing for their lives and the struggles they have had seeking shelter, safety and a path to being legally in the USA. The psychiatric sequelae manifested by the child and the history of her treatment will be discussed.

After this presentation the attendee with learn tools to work with this special population and feel more familiar and comfortable working with immigrant youth and families and assisting with their transition to a new culture.

### Practice gaps:

Children and families seeking asylum who have suffered severe trauma may have multiple barriers to access to care, including distrust of a strange and alien system, language, socioeconomic and educational deficits and isolation. Providers will also feel challenged by their ignorance of the patients experience, premorbid functioning and culture. Medical providers will be frustrated by the complex psychosocial issues related to the care of these children and families. It is important for providers to be trained to work with these patients and feel comfortable providing comprehensive clinical care and treatment of families who have suffered extreme trauma. This clinical presentation will provide an intimate view of the impact of trauma on these families and how to work through the challenges of treating these families as a clinician.



### 3327 - Unconscious Bias, Micro Verses Macro Aggressions

Dr. Melvin Oatis New York University Langone Medical Center

Introduction: Words, intentions and beliefs can have a profound impact upon our own life and the lives of our patients. The ability to address these processes remain at the core of practicing clinicians work however without examining our own biases, both conscious and unconscious, we risk missing critical opportunities to explore realities of great importance to our patients' health.

This presentation will explore unconscious bias, provide resources for clinicians to examine their own bias while discussing concepts of micro verses macro aggressions and their implications to the patient and society at large when not addressed.

Methods: The presentation providing definitions micro and macro-aggressions, how the concepts have been studied and the relevance to our clinical work.

Results and Conclusions: Racial stressors impact psychological and physical health, clinicians are well positioned to examine and discuss these stressors to promote resilience and teach coping skills

Practice gaps: Extremely educated professionals may have bias which prevent candid discussions with their patients resulting in an under appreciation of factors that affect their heath and the diagnostic conclusions rendered. A divide can be bridged with a willingness to discuss sensitive, emotional material allowing clinicians to validate the experiences of their youth of color while providing useful tools that impact their developmental trajectory positively.



S05-06: Long term safety of methylphenidate: Findings from the ADDUCE study

Prof. Dr. Dr. Tobias Banaschewski Central Institute of Mental Health

The Attention Deficit Hyperactivity Disorder Drugs Use Chronic Effects (ADDUCE) study is an EU FP7 funded study designed to asses the longer term safety and tolerability of methylphenidate in the treatment of ADHD. ADDUCE combined systematic reviews, secondary data analysis and a detailed cross sectional investigation of cardiovascular functioning with a large prospective 2 year observational study to investigate the long term impacts of methylphenidate on growth and puberty, and the cardiovascular, psychiatric, neurological systems. The four talks in the symposium will present the main findings from ADDUCE and discuss their clinical relevance.



2562 - ADDUCE: Aims and Methods

Sarah Inglis University of Dundee

Whilst the short term efficacy, safety and tolerability of methylphenidate as a treatment for ADHD in children and adolescents is very well established, the longer term benefits and risks are much less well defined. This is clearly important as ADHD frequently persists into adolescence and adulthood, often requiring long term treatment. The European Medicine Agency (EMA) has introduced requirements that address these issues for new to market medications, older medications, like methylphenidate, are however still to catch up. The EU-FP7 funded Attention Deficit Hyperactivity Disorder Drugs Use Chronic Effects (ADDUCE) study was designed to fill this gap and address the longer term safety and tolerability of methylphenidate. This presentation will describe the aims and methods of the ADDUCE studies in detail allowing the subsequent presentations to focus on the results. ADDUCE combined existing data through systematic reviews of the literature and data mining of existing data-bases with prospective data gathered from both longitudinal and cross sectional studies. At the heart of the ADDUCE programme is a 2-year longitudinal

naturalistic pharmacovigilance study conducted across 27 European sites in 4 countries (Germany, Hungary, Italy and the UK). A novel aspect of the design is the inclusion of both an unmedicated ADHD group and a healthy control group. Data was collected from 3 cohorts of children and adolescents (aged 6–17): Group 1 (Medicated ADHD): 800 ADHD medication naive children and adolescents with a clinical diagnosis of ADHD about to start methylphenidate treatment for the first time.

Group 2 (Unmedicated ADHD): 400 children and adolescents with a clinical diagnosis of ADHD who have never been treated with ADHD medication and have no intention of beginning medication. Group 3 (Non-ADHD): 400 children and adolescents without ADHD who are siblings of individuals in either group 1 or 2. All participants were assessed 5 times during the 2-year follow-up period for growth and development, psychiatric, neurological and cardiovascular health. The primary outcome measure was the height velocity

SD score. In a further cross sectional study a detailed examination of cardiovascular status was conducted across 2 groups of adolescents and young adults with ADHD one unmedicated and one who had received methylphenidate for > 3 years.



2563 - The impact of long term methylphenidate on Growth (weight, height, BMI), pubertal maturation, and bone age

Dr Sara Carucci

Over the last 30 years, there has been increasing concern about the risks associated stimulant medications used to treat ADHD in particular with respect to possible impacts on growth. Within the EU funded ADDUCE study we conducted a systematic review of the literature on the long term impact of methylphenidate on growth and pubertal maturation in ADHD and directly investigated these effects within a 2 year prospective pharmaco-vigilance study. The systematic review identified a total 39 eligible studies that included a total of 6395 subjects. Nineteen studies did not support an association between a growth deficit and treatment. The other twenty studies reported significant changes on height, weight and/or BMI z scores. The impact on height effect were more evident during the first 6-12 months with a subsequent normalization. Dose, drug holidays, the length of treatment and the basal growth parameter appeared as possible mediating factors. Within the prospective study, the primary analysis of height velocity supports a small but significant negative impact of MPH on height velocity when those with ADHD taking medication are compared both to those with ADHD but not taking medication and to healthy controls. Whilst the other preliminary analyses did not find a statistically or clinically significant impact of MPH on height these were only able to take into account a small subset of the potential confounders used in the propensity score adjustments that were included in the primary analysis. Preliminary analysis examining the impact of MPH on weight, revealed a moderate effect within the medicated population, more evident during the first months of treatment (6-12 months) with a subsequent substantial stabilization. The differences between groups in weight Z scores after 24 months of follow up dido not exceed 0.4 SD point, suggesting that observed differences are small and of minimal clinical significance. There was a moderate impact of methylphenidate on BMI. The analysis of collected data on pubertal maturation does not suggest that methylphenidate impacts on pubertal maturation in ADHD treated subjects. In a sub study of bone age in the italian sample there was no evidence that methylphenidate impacts negatively on bone growth over a 2 year period. Taken together these findings support methylphenidate as a safe medication in the longer term, with only a minimal clinical impact on growth.



### 2564 - The ADDUCE Study: Psychiatric effects of long term methylphenidate

Elizabeth Liddle University of Nottingham

At the outset of the ADDUCE project the evidence for any adverse effects of long term treatment with methylphenidate (MPH) was unclear, with several unanswered questions. In particular, little was known about adverse psychiatric effects of long term MPH use. We considered 5 psychiatric outcomes: Psychosis or psychosis-like experiences; Mood disturbance and depression; suicidal ideation and self-harming behavior; Substance abuse and tics

ADDUCE used multiple methodologies to address these questions. These were systematic review of the existing literature; retrospective analysis of data from the ALSPAC study and a Hong Kong population-based data set; a 24 month observational pharmacovigilance study where psychiatric outcomes for children with ADHD who received MPH were compared with those for children with and without ADHD who did not receive MPH.

The systematic review found evidence for an association between long-term MPH treatment and mood irritability and mood swings, and for a worsening of tics in children with co-existing Tourette syndrome. There was no strong evidence for elevated risk of other psychiatric outcomes, and some of protective effects. The ALSPAC data showed that severe ADHD symptoms were associated with high scores on all four of psychiatric outcome measures; but no evidence that MPH increased the risk of psychotic like symptoms, substance abuse or self-harm, when ADHD severity was controlled for. MPH treatment was associated with elevated risk of depression. The Hong Kong data showed no evidence for increased risk of a psychotic event during MPH exposure as compared with periods without MPH treatment. but the risk of a psychotic event was increased period prior to the first prescription of MPH. Initial analyses of the prospective data indicate that children with ADHD show higher levels of depressive symptoms and suicidal ideation than healthy controls, regardless of whether they are treated with MPH or not. The data do not indicate that MPH treatment itself contributes to the psychiatric outcomes measured.

We conclude that ADHD itself is associated with substantially elevated risk of adverse psychiatric outcomes, and some of the evidence suggests that MPH may reduce these risks. At least some of the association between MPH and mood disorders observed in ALSPAC can be explained as an indirect effect, mediated by factors that increase the likelihood of both MPH treatment and depression, including the severity of ADHD.



## 2565 - The ADDUCE Study: Cardiovascular effects of long term methylphenidate

Prof. Dr. Jan Buitelaar

The ADDUCE programme of studies analysed data from several sources to better understand the impact of longer term methylphenidate on cardiovascular functioning. A systematic review of the literature identified 18 clinical trials met the inclusion criteria 10 for methylphenidate (MPH), 5 for amphetamines (AMP), 7 for atomoxetine (ATX). with an average duration of treatment of 28.7 weeks. All three medications were associated with a small, but statistically significant increase of Systolic Blood Pressure. AMP and ATX were associated with small to medium increases of Diastolic Blood Pressure, MPH just failed to reach significance. Overall, 737 cardiovascular adverse effects were reported in these studies for all n= 5837 participants (12.6%). Studies of MPH reported 12.7%, AMP 12.5% and ATX 13.1%. The vast majority of patients continued their medication treatment following the report of a cardiovascular adverse event with relatively few discontinuations. Analysis of the German KIGGS database found no significant effect of MPH treatment on diastolic and systolic blood pressure in this study. In the ADDUCE prospective studies clinical studies there was an interaction between visit and group (F(2.960) = 285.826, p < 0.01) where pulse increased for patients with ADHD + methylphenidate at 6 and 12 months in comparison with the non-medicated group and the healthy controls. There were no differences between groups for diastolic blood pressure. Systolic blood pressure was higher at baseline for patients with ADHD who used methylphenidate than for controls. The systolic blood pressure increased for patients with ADHD with methylphenidate or without medication and for the healthy controls over the 2 years of the study. 24-hourblood pressure recordings indicate that there is an increase of systolic blood pressure and heart rate that occurs only at daytime and disappears at night time. There were no effects on 24 hour diastolic blood pressure of methylphenidate use. Though these effects are small at the group level, they may be clinically relevant for some patients who move from subclinical levels of blood pressure and heart rate into clinically relevant hypertension and/or tachycardia. The effects seem to be linked to the acute pharmacological effects of the medication and do not seem to be fixed independent of the acute pharmacological effects. There were no indications of left ventricular hypertrophy for patients with ADHD who used methylphenidate on the long-term.



2566 - ADDUCE: Discussion and clinical recomendations

Prof. David Coghill University of Melbourne

This session will bring together the contributions from the previous presentations and discuss the clinical relevance of the ADDUCE studies and outline continuing gaps and future research needs



S05-07: How can conduct disorder subtypes enhance our understanding of violent behaviors in youth?

Dr. Marcel Aebi University Hospital of Psychiatry

There is an ongoing debate if oppositional defiant disorder (ODD) and conduct disorder (CD) are valid and useful mental health disorders in children and adolescents, and how they relate to criminal and violent behaviors. Different subtypes of CD have been introduced in order to improve our understanding of the comorbidity, the course, the outcomes, and treatment needs of children and adolescents. This symposium gives an overview of the current epidemiological and clinical research on CD subtypes and its validity in general and forensic populations.



### 2876 - Trajectories of agressive and delinquent behaviour

Prof. Dr. Dr. Hans-Christoph Steinhausen University of Zurich, Department of Child and Adolescent Psychiatry

Objectives: The study of trajectories of aggressive and delinquent behaviour during adolescence, the classification of longitudinal types of these behaviours, and the analysis of the discriminant and predictive validity of these types in terms of the association with psychiatric disorders and substance use in young adulthood.

Methods: A representative Swiss community-based sample of N=593 participants was studied longitudinally at three times between early adolescence and young adulthood. Aggressive and delinquent behaviours were measured by use of the Youth Self-Report (YSR) and the Young Adult Self-Report (YASR). In addition, a questionnaire on substance use was administered and psychopathology was assessed by applying the Composite International Diagnostic Interview (CIDI, DIAX version) resulting in ICD-10 diagnoses. Trajectories of aggressive and delinquent behaviour were analysed by longitudinal cluster analysis. Associations of the trajectories with the young adult outcome were assessed by Chi2-tests.

Results: Four different trajectories reflecting aggressive and delinquent behaviour each during adolescence were identified. In terms of predictive validity, there was one unique trajectory of aggressive behaviour with an early onset and high persistent course and one unique trajectory of delinquent behaviour peaking in late adolescence. All other trajectories (increasing, decreasing, low persistent) were non-specific.

Conclusions: These findings provide additional insight into the developmental course of aggressive and delinquent behaviours and a rationale for preventive and intervention approaches.



### 2879 - Limited prosocial emotions as specifier of conduct disorder in youth

Prof. Dr. Robert Vermeiren Child and Youth Psychiatry, Curium, Leiden University Medical Center

Objectives: With the introduction of DSM 5, a specifier was added to the diagnosis of Conduct Disorder, Limited Prosocial Emotions (LPE). It is argued that this specifier will allow us to identify a severe subgroup, which will allow to offer tailor-made interventions. Since evidence for this specifier has predominantly been obtained from epidemiological studies by means of self-report questionnaires, the clinical usefulness of this specifier has been questioned. Therefore, the aim of this lecture is to present an overview of current evidence for the LPE specifier in clinical populations.

#### Methods

Findings from literature and from several own studies will be used to address the aim. The own studies include research in detained populations and youth care institutes. Focus will be on the prediction of intervention outcome, recidivism and later functioning.

### Results

Currently, findings on the usefulness of the LPE specifier of conduct disorder are inconsistent. While this new subtyping shows value in some studies, the predictive power impresses as low. However, a major limitation is the lack of studies including LPE specifier results obtained through clinical evaluation by professionals.

#### Conclusion

As the added value of the LPE specifier likely is small, and the importance of subtyping CD by severity substantial, the speaker will discuss avenues for the future. Finding a method of subtyping CD in clinical practice proves to be complicated, since many different efforts have been done already.



## 2881 - Resting Autonomic Nervous System Functioning Parameters as Objective Indicators in Characterizing Antisocial Behaviour?

Martin Prätzlich

Background: Autonomous nervous system (ANS) functioning had been associated to mental health. Especially heart rate variability (HRV), an indicator of cardiac parasympathetic activity, is currently being discussed as a biomarker for mental and physical health, including conduct disorder (CD). HRV, Respiration (RR), heart rate (HR) and pre-ejection period (PEP) which had also been linked to psychiatric conditions have been rarely studied together. This study aims at investigating the validity of these measures as objective indicators of antisocial behaviour (ASB).

Sample: The sample consisted of 1,011 individuals (660 female, 351 males) studied within the European FP7 research project "Neurobiology and Treatment of Adolescent Female Conduct Disorder (FemNAT-CD). 484 (47.9%) participants fulfilled the criteria of a conduct disorder assessed by a standardized psychiatric interview (K-SADS). The average age of the sample was 14.22 years (SD=2.4 yrs).

Methods: Confirmatory Factor Analysis (CFA) was applied to identify the accuracy of baseline ANS parameters as indicators of ASB. Latent Class Analysis (LCA) was used in order to identify different phenotypic clusters of antisocial behaviour as well as clusters of ANS activity. Analysis of Variance (ANOVA) was performed to test whether different latent typologies of antisocial behaviour were associated with distinct patterns of ANS activity and vice versa. Considered covariates were BMI, age, gender, medication, pubertal status, socioeconomic status, intelligence.

Results: Preliminary results show that indicators of ANS activity are very subtle, if not mostly insignificant indicators of psychopathology in the current sample. RR had the highest factor loadings on a latent dimension of psychopathology. Preliminary results show that controlling for covariates there is no association of different latent classes underlying ANS activity with ASB and vice versa.

Conclusion: Indicators of ANS activity appear not suitable as objective, stand-alone indicators of ASB due to their low factor loadings and explained variance. Moreover, they do not appear to be able to separate types of ASB. However, the association of RR with psychopathology and ASB seems noteworthy from a nosological perspective.



### 2893 - Conduct disorder symptom profiles in male adolescent offenders

Dr. Marcel Aebi University Clinic of Psychiatry, Zurich

Background: Conduct disorder (CD) is defined as a repetitive and persistent pattern of behaviour that violates the rights of others or that violates major age-appropriate societal norms or rules. According to the DSM-5 the symptoms of CD fall into four main categories: (1) aggression to people and animals, (2) destruction of property, (3) deceitfulness or theft, and (4) serious violations of rules. Among criminal offenders few studies addressed the validity of CD subtypes based on different symptom profiles. The present study aimed at analysing empirically derived CD subtypes and testing their relation to suicidality, co-morbid psychiatric disorders, and later criminal behaviours in two samples of male adolescent offenders. Methods: Suicidality and psychiatric disorders (including CD symptoms) were assessed in a consecutive sample of 158 male adolescents (Mage=16.9 years) from the Zurich Juvenile Detention Centre and 159 nondetained adolescent offenders (Mage = 16.5 years) from a forensic outpatient clinic. Latent Class Analysis (LCA) will be used to identify distinct subtypes of adolescent offenders according to their CD symptom profiles. Logistic regression and Cox regression will be used to analyse the relations of CD-subtypes to co-morbid psychopathology and criminal re-offenses from official data. Results: Out of the samples, 74.7% of the detained offenders and 49.1% of the nondetained offenders met criteria for CD. Preliminary findings show that symptom profiles vary considerably across detained and non-detained offenders. Further analyses are outstanding and findings will be presented at the congress. Conclusions: Juvenile offenders show heterogeneous CD symptom profiles. Subtypes of CD may address important information for comorbid psychopathology and for the prevention of criminal re-offenses in juvenile justice populations.



## 3226 - Longitudinal outcomes of children with behavioral disorders with or without parents with psychiatric disorders

Peter J. Roetman Leiden University Medical Center

#### Introduction

A survey among clinicians working with children with severe behavioral disorders across various European countries showed that parental psychopathology is considered to be a risk factor of various negative outcomes. This notion converges with a considerable amount of research showing that parental psychopathology and childhood behavior problems are both associated with substance abuse, antisocial behavior, and psychopathology in adolescence and adulthood. Yet, longitudinal research that directly compares behaviorally disordered children with (versus without) mentally disordered parents in terms of negative outcomes in adolescence, is lacking.

#### Method

Data from the Child and Adolescent Twin Study in Sweden (CATSS) were used to partition 9-year-old children to four mutually exclusive groups based on the presence of parent-reported behavior problems (i.e. symptoms of conduct disorder and oppositional defiant disorder ) and the presence of parental psychopathology (ICD diagnosis). Next, it was examined if these groups differ in terms of various self-reported negative outcomes (e.g., antisocial behavior, substance abuse, peer problems, and psychopathology), assessed 6- and 9- years later.

We are currently analyzing the data. The results of these analyses will be presented at the symposium.



S05-08: Neurofeedback for children with ADHD

Prof. Dr. Daniel Brandeis PUK, Clinic for Child and Adolescent Psychiatry and Psychotherapy, University of Zurich

Despite a considerable amount of research and methodological progress during recent years, the efficacy and specificity of neurofeedback training for children with ADHD remain controversial topics. In this symposium, speakers from four European countries will present an overview over latest developments and their recent research.

Katya Rubia will present an update on FMRI-feedback for adolescents with ADHD. Pascal Aggensteiner will report results from a large German multicenter study where EMG biofeedback was used as control condition for SCP neurofeedback. In Jessica van Doren's contribution, the effects of a neurofeedback short term intervention will be analyzed. Tieme Janssen gives an overview over results from a large Dutch study, including new follow-up-data, where he distinguishes and analyses the impact of specific and non-specific effects. Renate Drechsler presents first data from the ongoing Zurich neurofeedback study, showing that teacher ratings are probably not the most reliable source for the measurement of change.



3076 - A randomized controlled clinical trial of real-time functional magnetic resonance imaging neurofeedback for adolescents with attention deficit hyperactivity disorder (ADHD)

Prof. Dr. Katya Rubia Institute of Psychiatry, Psychology & Neuroscience (IoPPN); King's College London

Introduction: In this study, we wanted to teach ADHD adolescents to self-upregulate the right inferior frontal cortex (rIFC) which is consistently underactivated and most consistently upregulated with stimulant medication using real-time Neurofeedback with functional magnetic resonance imaging (rtfMRI-NF). For this purpose, we conducted a proof of concept randomised controlled trial (RCT) of rtfMRI-NF of rIFC in ADHD adolescents. We hypothesised that rtfMRI-NF would improve clinical symptoms of ADHD, cognitive control functions that are mediated by rIFC and the activation of rIFC during a motor inhibition stop task that is typically underactivated.

Methods: Thirty-one ADHD boys were randomized in a single-blind RCT to rt-fMRI-NF (14 sessions) of the rIFC (active group) or the left parahippocampal gyrus (lPHG, control group). Visual feedback was presented via a video-clip of a rocket that had to be moved from the ground to the space. Main outcome measures were changes in parents' rating of clinical ADHD symptoms which were assessed at pre, post, and on average 11 month follow-up. A computer-based test battery and a fMRI Stop task were also used to assess NF effects on cognition and IFC brain function.

Results: Both NF groups showed significantly linearly progressive increased activation with increasing session numbers in their respective target regions relative to the other group. Both groups also showed reduced ADHD symptoms from pre to post with no significant group differences; these changes, furthermore correlated significantly with the brain changes in their respective target regions. Only the active group, however, showed a transfer effect, whereby they showed increased activation in rIFC without the neurofeedback. Also, only the active group maintained the achieved improvements in ADHD symptoms at an average of 11 month follow-up. Furthermore, only the active group improved in intra-subject response variability and (trendwise) in sustained attention. Lastly, only the active group showed significantly enhanced rIFC activation after the training relative to before the training during a Stop motor inhibition task, relative to the control group, who did not show this effect.

Discussion: The proof of concept study shows that ADHD adolescents can learn to self-up-regulate rIFC activation and this is associated with improved ADHD symptoms, cognition and inhibitory rIFC activation.



3080 - Efficacy of Slow Cortical Potentials neurofeedback in children with Attention Deficit/Hyperactivity Disorder (ADHD): evidence from a randomized multicenter trial controlling for unspecific effects

M.Sc. Pascal-Maurice Aggensteiner

Department of Child and Adolescent Psychiatry and Psychotherapy Central Institute of Mental Health, Medical Faculty Mannheim /Heidelberg University

Objectives: Neurofeedback (NF) in children with ADHD has been investigated over the last years with no unanimous support for NF as a treatment in ADHD. Most studies did not control for unspecific effects and did not demonstrate self-regulation capabilities. The present study examined the efficacy of NF in comparison to electromyographic feedback (EMG) to control for unspecific effects of the treatment, and assessed self-regulation of slow cortical potentials (SCP).

Methods: Children with ADHD (n=150, age 7-9 y) were randomly assigned to 25 training sessions of SCP- neurofeedback or electromyogram (EMG) feedback. The neurofeedback group had to regulate slow EEG activity at Cz, while the EMG-feedback control group had to regulate electromyographic activity of the musculus supraspinati. Each training session consisted of three runs with visual feedback and one run without feedback (transfer condition), which aims to transfer the learned skills into daily life. The primary outcome was the change in parents ratings of ADHD core symptoms four weeks after the end of treatment compared to baseline.

Results: Both groups showed reduced ADHD-core symptoms, but the NF group improved significantly more than the EMG group; this also held for the subdomains inattention and impulsivity. Successful self-regulation of brain activity in the NF group and of muscle activity in the EMG group was observed. However, the teacher ratings did not show significant group differences for core symptoms or subdomains. Teachers rated children as less severe from the beginning.

Conclusion: The primary outcome based on parents' ratings showed more improvement after NF than after semi-active EMG feedback treatment, and the group-specific regulation patterns indicated specific effects. The lack of group differences on teacher ratings may reflect lower sensitivity and power. This study supports the feasibility of NF in a large multicenter sample of ADHD participants and suggests that both specific and unspecific effects contribute.

Reference: Holtmann, M., Pniewski, B., Wachtlin, D., Wörz, S., & Strehl, U. (2014). Neurofeedback in children with attention-deficit/hyperactivity disorder (ADHD) – a controlled multicenter study of a non-pharmacological treatment approach. BMC Pediatrics, 14(1), 202.

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## 3085 - Specific and non-specific effects of theta/beta neurofeedback in ADHD: what can we learn for the future?

PhD Tieme Janssen Department of Clinical Neuropsychology, Vrije Universiteit Amsterdam

Objectives: The clinical efficacy of neurofeedback as treatment for children with ADHD is still a highly debated subject. Most of the discussion revolves around which kind of control condition is appropriate to control for non-specific treatment effects, and whether children are actually able to alter brain activity. We aimed to dissociate specific and non-specific effects of theta/beta neurofeedback in children with ADHD.

Methods: In this randomized controlled trial (RCT) we examined whether neurofeedback (NF) (1) could induce ADHD symptom reductions (NF versus control group), (2) would enable selfcontrol of brain states during the intervention, (3) could induce specific and lasting changes in brain activity (EEG power spectra and ERPs), and (4) effects would rely on non-specific factors such as treatment expectation, which could alternatively explain reported intervention effects. Results: (1) Although NF was equally effective in reducing ADHD symptoms as the control group (Geladé et al., 2016), (2) children learned to regulate their brain activity while training (Janssen et al., 2016a); (3) NF induced specific theta power reductions during a resting condition compared to the control group, which were correlated with symptom improvements (Janssen et al., 2016b), although no effects were found for the task condition (power spectra and ERPs, Janssen et al., 2016c). (4) Parent-reported symptom reductions were (partly) explained by treatment expectations, which probably reflect non-specific effects or bias (Geladé et al., 2016). Conclusion: Both specific and non-specific factors influenced parent-rated reports of neurofeedback effects. Although children were able to alter their own brain activity while training (acute effects) and demonstrated lasting changes in brain activity (chronic effects), this did not translate to behavioral changes according to parents and teachers. Further studies into both specific and non-specific effects are needed to dissociate trainable component to improve future neurofeedback protocols. During the symposium, we present additional data on the latest behavioral, cognitive and EEG power spectra results of the 6-months follow-up, to assess whether neurofeedback induced delayed effects that have been hypothesized by Arns & Kenemans (2014).



#### 3087 - Short-term theta/beta neurofeedback in children with ADHD

Jessica Van Doren Department of Child and Adolescent Mental Health, University Hospital Erlangen

Objectives: Neurofeedback is a therapeutic method used to treat Attention Deficit/Hyperactivity disorder (ADHD). Classical use of this method requires 20+ sessions, but studies in adults have shown behavioral and neurophysiological effects (neuroplasticity) after a single neurofeedback session. The aim of our study was to evaluate short-term theta/beta neurofeedback training in children with ADHD.

Method: Twenty-two children with ADHD completed two sessions of theta/beta neurofeedback (Cz feedback source). Each session consisted of three neurofeedback trials (puzzle animation) with pre- and post- reading and picture search tasks. For analysis, children were split into Good Regulator (GR) and Poor Regulator (PR) groups. Neuroregulation from the first to third puzzle, performance in the picture search task, and changes in neurophysiological measures (EEG) from pre- to post- NF were assessed.

Results: Regarding neuroregulation, the second session was characterized by a decrease in theta from the first to third puzzle. When divided by group, for both the first and second session, the GR theta decreased while PR theta increased.

For the picture search task, there was a tendency toward significance for the score from pre- to post- NF during the second session, but no corresponding physiological findings were revealed. During the reading task, the GR demonstrated a theta reduction (at Cz) from pre- to post- NF in the second session, while the PR had an increase in theta.

Conclusion: This is the first study to assess the effects of a short duration theta/beta neurofeedback training in children with ADHD. We found that children can learn to decrease their theta in only two neurofeedback sessions, but distinct effects were seen when the groups were split between GR and PR.



## 3092 - On the significance of teacher ratings for the evaluation of neurofeedback training in ADHD

PD Dr. Renate Drechsler

#### **Objectives**

Meta-analyses of neurofeedback training have cast doubts on its efficacy for children with ADHD, because of the lack of significant improvements according to teacher ratings. In contrast to parents ratings which may be biased because of their expectations, teacher ratings are considered to be "probably blinded". However, teacher ratings may be biased for several other reasons and their validity for the measurement of subtle and progressive change still remains to be shown. In the present study, we therefore controlled for random effects by introducing a baseline, for the involvement in the training by contrasting settings (training in a clinical setting vs. at school) and for subjective biases by introducing school observations by blinded raters. Method

Children with ADHD, aged 8 to 16 years, participated in a neurofeedback training of the slow cortical potentials. Half of the children trained in the outpatient clinic, the other half at their schools. Parents and teachers rated ADHD symptoms on the Conners-3 scales at three times: approx. three months before the training (t1), directly before the start of the training (t2), and after the completion of the training (t3). Standardized school observations were conducted twice, directly before and after the training.

#### Results

Teachers indicated significant improvement on the Conners-3 scales. This was due, however, to changes during the three-months waiting period (t1-t2) and not to improvements after the training (t2-t3). This pattern was in clear contrast to parents' ratings. Objective school observation resulted in significant behavioral improvement after training (t2-t3). The setting – and thus the degree of involvement in the training - had no influence on teacher ratings. Discussion

These preliminary results do not support the notion that teacher ratings might be per se more valid or more objective than parents' ratings for the evaluation of neurofeedback training effects.



S05-09: WAIMH Invited Symposium

Dr. Miri KEREN Geha Mental Health Center

As Egger & Egeland have shown (2006), most of the psychiatric disorders in childhood can start before the age of three. In this symposium, we will present new data about precursors of language development, as well as the new classification of mental and development disorders in early childhood (DC 0-5), and update on the characterisctics of anxiety and depression in preschoolers and gender identity dysphory disorder in the early years.



#### 2817 - Trajectories of internalizing symptoms from preschool to school age

Professor of child and adolescent psychiatry Kai von Klitzing University of Leipzig, department of psychiatry

#### Objectives

Not much is known about etiology and long-time course of preschool anxiety and depression. The current 6-year longitudinal study examined trajectories in a high-risk cohort, oversampled for internalizing symptoms, as well as several preschool risk factors (stressful life events, maltreatment, stress-hormone regulation, and maternal psychopathology) and school age outcomes.

#### Methods

Parents of 325 children completed the Strengths and Difficulties Questionnaire on up to four waves of data-collection from preschool (age 3-4 years) to late school age (8-9 years) and Preschool Age Psychiatric Assessment interviews at preschool and late school age. Multi-informant data (parents, teachers, children) were collected on risk factors and symptoms.

#### Results

We identified four trajectory classes of internalizing symptoms with stable low, rising low to moderate, stable moderate, and stable high symptoms. Children in the stable high symptom trajectory manifested clinically relevant internalizing symptoms, with a majority diagnosed with anxiety disorders/depression at preschool and late school age. Trajectories differed regarding preschool stressful life events (loss/ separation), maltreatment, stress-hormone regulation, and maternal psychopathology. At school age, trajectories continued to differ on symptoms, disorders and impairment.

#### Conclusion

The results help forecast under what conditions preschool internalizing symptoms are likely to persist, calling for early intervention



## 2819 - Very Young Children and Gender Diversity: the Process of "Becoming Me".

Associate professor of child and adolescent psychiatry Campbell Paul Royal Children's Hospital

Recent years have seen a profound increase in the number of gender diverse young children and adolescents being seen at child and adolescent gender services around the world. Very young children under eight years constitute about 25% of those seen at the Royal Children's Hospital Melbourne.

By the age of around 30 months, or earlier, infants are generally able to correctly identify their own gender, and the gender of anatomically correct dolls. (Marneffe 1997) For the very young child experiencing "gender dysphoria" there is likely to be profound cognitive dissonance between the internal perception of a gendered self, and how the child sees themselves, and is seen by others. Clinical work with toddlers and preschool children with their parents demonstrates how the child avidly tries to read the verbal and non-verbal communications from the other as they impinge upon their own sense of gender and self. The infant develops a sense of self in the context of parental mirroring (Winnicott) and parental reflective capacity. The child may develop a series of psychological defences when there is major dissonance between the internally and the externally perceived self.

Mental health clinicians working with gender dysphoric young children should provide an opportunity for the child to creatively explore and playfully reflect upon their identity and should help parents support the child in this task. This paper will present data from a series of very young children presenting to one paediatric gender service.



2820 - Multimodal approach of developmental trajectories of children from several cohorts and study of possible markers of future communication disorders

Prof. Dr. Bernard Golse Hopital Necker Enfants Malades

The research program entitled "PILE" (International Research Program for the Child's Language) was introduced in 2005 at the Hospital Necker-Enfants Malades (Paris). Its main objective is the identification - during the first year of life - of risk indicators about subsequent appearance of disorders in the field of general communication (PDD for Pervasive developmental disorders) or in the field of speech communication (SLD for Specific Language Disorders also called dysphasia).

Transdisciplinary research methodology will be exposed and also the main results, particularly those obtained in a cohort of children with West syndrome.



#### 2821 - New approaches to classifying disorders in the first five years of life

Assistant Professor in Child and Adolescent Psychiatry Miri Keren Geha Mental Health Center, Tel Aviv Sckler School of Medicine

Research on psychopathology in the first years of life is newer and less developed than are sudies of psychopathology in older children.

The objective of the Zero to Three Task Force was to revise the DCo-3R classification in the light of emprical studies as well as clinical experience.

The method included an international survey and in-depth literature review of the last 10 years. As a result, main changes have been done in the approach to the diagnostic process, as well as in several diagnostic categories, which we will present in this symposium.

To conclude, we have tried in this new version (DC 0-5) to find a balance between placing a high value on using criteria and diagnoses that are empirically based, and encouraging the use of criteria and disorders that are clinically meaningful.



S05-10: Application of « Psychotherapy centred on parenthood » in several child psychopathologies

Dora Knauer

We will describe and illustrate the use of this therapy in the transition from prenatal to postnatal period and then at different ages of the child and with some specific psychopathologies. We will present the main results of one randomized clinical trial and three pilot studies done in Geneva and in Barcelona during the perinatal period.



#### 2939 - What is « Psychotherapy Centred on Parenthood »?

MD Nathalie Nanzer

There is no such thing as a baby on its own, said Winnicott (1965). Early parent-child relationships form a rockbed for the development of a child's personal identity and the quality and nature of parental representations of the child provide the soil and the nutrients for the child's developing sense of self and others. Psychotherapy centred on parenthood (PCP) draws its inspiration from brief parent-child psychotherapy developed by Cramer, Palacio Espasa, Manzano and the Geneva school of child psychiatry. PCP provides a means for accessing and working through internal conflicts that negatively impact on parental functions, leading to distortions in the parent's representation of the child. The parent's projective identification with their own distorted perceptions of the child disorganises the child's self-identifications and leads to a variety of functional disturbances and pathologies in development.

Psychotherapy Centred on Parenthood intervenes at two levels of psychic functioning: the first is the internal world of the parent. PCP allows access to the unconscious processes and phantasies that becoming a parent awakens in the mother and the father. These include early childhood identifications with one's own parental figures (internalised images of one's parents and of early childhood experiences of the relationship to each parent and to close family relatives) and the projection of these distorted images into one's own child. PCP helps the parent to recognise and take back their distorted representations of their child, freeing the child's psyche of these distortions. The child can then be seen by the parent for who he or she is, and the symptom can be releaved.

Secondly, PCP works directly on the parent-child relationship: by observing the nature and the quality of parent-child interactions and unconscious communications, it provides access to some of the parental phantasies described above. The therapist uses this understanding to verbalise some of the unconscious phantasy scenarios enacted in the mother-child or father-child dyads, rendering these accessible to thoughtful interpretation and transformation. In cases where the parent's insight or mentalisation abilities are inaccessible, we work primarily at the level of parent-child interactions.



## 2940 - Prevention of preterm delivery by a brief psychotherapeutic intervention: a randomized clinical trial

Professor Francisco Palacio Espasa

Prematurity is the leading cause of neonatal mortality with important risk of handicaps, cognitive delays and affective disorders. It can also lead to a parental post traumatic stress disorder which affects the image they have of themselves and of their infant, in addition to fragilize their parental competences.

Therefore, since January 2005, a multidisciplinary team leads a clinical randomized trial. For women hospitalized for preterm labor.

The goal of the study is to evaluate the benefit of a brief psychotherapeutic intervention based specifically on the process of parenthood and the pre-attachment to the future baby for women hospitalized for preterm labor. In this presentation we will explain the psychotherapeutic method.

In term of prevention of the childbirth before-term, this brief psychotherapy could be promising and could be proposed in the others maternities of Switzerland.



2941 - The use of a brief psychotherapy centred on parenthood to prevent and treat perinatal depression and subsequent mother-infant relationship troubles: 2 pilot studies.

MD Nathalie Nanzer

Management of depression during perinatal period is a complex task that has to consider the risks and benefits for the mother, the child and their relationship. Consequences of perinatal depression on the child emotional and cognitive development is now well documented, but few intervention models are specifically addressed to the particular aspects of this developmental period consisting in "becoming a mother".

We will present the results of two pilot studies using a psychotherapy centred on parenthood (PCP) that is based on the mother-infant psychotherapeutic intervention model developed by the Geneva school so that it can already be used in the prenatal period (Nanzer and coll. 2012). It focuses on the identification and resolution of the mother's conflictual representations and fantasies concerning her maternal identity which constitutes the background of perinatal depression. These different aspects are related to the past history of the woman and to her relationship with her own mother, leading to a relief of the anxious and depressive symptoms.

The first study recruited 129 pregnant women in a general population. 40 were screened as being depressed or at high risk for future perinatal depression. We assessed them for symptoms of depression during pregnancy and at 3 and 6 months postpartum, after a 4-session brief PCP therapy. None of the 31 women undergoing all treatment sessions had significant depression scores on the EPDS at three and six months postpartum. Mean depression scores dropped from 12.8 to 4.8. The intervention was well accepted by the women and 94% responded positively to the satisfaction questionnaire.

The second study concerns a clinical panel of 34 mothers consulting an ambulatory parent-infant unit during perinatal period. The effect of the therapy was tested on the mother's mood, on maternal representations and on the infant's development at the end of the therapy and one year later. 83% mothers completed the therapy and 68% participated in the post-therapy evaluation. They displayed significant improvement of post-treatment measures of depression, anxiety, global functioning and clinical global assessment. The quality of infant-parent relationship adaptation showed a tendency to improve.

The results of these two studies suggest that PCP during the perinatal period is feasible and is accompanied by a high rate of clinical and functional improvement.



2944 - Impact of a parentality intervention through brief PCP in pregnant women at risk of anxiety and depression carried out in a public health centre in Barcelona.

Marta Gomà

AIMS: To study levels of perinatal anxiety and depression in the population of pregnant women at a health centre in an area of Barcelona with high rates of social exclusion and poverty. Following an assessment during pregnancy, the population at risk is offered psychotherapy centred on parentality (PCP).

PRELIMINARY RESULTS: Over the first 15 months of the study, 128 pregnant women agreed to take part. There are currently 31 women receiving the PCP intervention. Results obtained for women who are already in the postpartum stage (N=20) indicate a statistically significant (Wilcoxon p>0.000) drop in depressive symptomatology (EPDS): average score of 11.8 during pregnancy (SD 5.1) and an average of 3.9 in postpartum (SD 5.1). Currently, the course of clinically significant anxiety and maternal representations is being studied.

We observe that those pregnant women who requested treatment in the postpartum period without having received PCP during pregnancy (n=5) had very high EPDS average scores (15.4; SD 1.1). Despite the small sample, we detect the severity of the symptomatology clinically in this second group of mothers and note the technical difficulties in the psychotherapeutic approach when the mother has not benefited from PCP during pregnancy.

CONCLUSION: Regarding impact, our study has high preventive and therapeutic value when PCP is applied to the development of healthier parentality in mothers at risk of anxiety and depression. The research framework facilitates awareness of the perinatal care network; the various health experts who combine their skills to focus on perinatality within the health centre (GPs, midwives, pediatricians, nurses, social workers). They reinforce the infant and adult mental health and the local hospital services network.

KEY WORDS: Pregnancy, psychotherapeutic intervention, PCP, perinatal, anxiety, depression, prevention, early detection.



## 2945 - Psychotherapy centred on parenthood to treat children's eating disorders.

Dr. Dante Trojan

Psychotherapy centred on parenthood is an essential tool for caring baby's, todler's and teenager's eating disorders. This type of psychotherapy aims at improving the relationship between parents and children through exploring parents' childhood and their life experience, and childrens' symptom improvements.

Parenting always involves reflecting back to one's own childhood memory, consciously or not, as one faces the reactualization of his past and the need for relationship with his own parents.

This type of psychotherapy is especially relevant for patients afflicted with eating disorders, and this holds true for various reasons. Among them lies the type of anguish that these disorders causes to parents (anguish of death always ranking first), but also the importance of life experience and body language which preceeds verbal language in the context of parent-child relationship.

Psychotherapeutic counseling should allow for the treatment and the elaboration of these types of primary symbolization, body language, sensoriality and proto-affects which foster the early bonds between parents and children.



#### 2946 - Parenthood and children with severe developmental disorders

MD François Hentsch

The parents of a child whose development is seriously problematic, are confronted with high levels of stress that can interfere with their ability to care for their child. It is often more difficult for such parents to meet their child's needs as the child may well be more demanding, irritable, or difficult to understand. The feeling of being a "good-enough parent" can be is damaged by the resultant interactive disturbance. And thus the parent has more trouble feeling competent and can also feel quite guilty. Their self-respect is continuously damaged as they attempt to adapt to their child's deviant behavior. In these particular situations, which we can consider as traumatic, the parent should be able to ask for help, receive support, and obtain assistance. The childhood history of the parent, the quality of the parental couple-relationship also play a role in the adaptive capacity of parents coping with a child with developmental difficulties.



S05-11: Metrics for the assessment of global mental health.

Dr. Hesham Hamoda Children's Hospital Boston, Harvard Medical School

There is a significant deficit in the evaluation of mental health services for children and youth worldwide. Such evaluation in children has been more complicated than parallel efforts to assess general health services and mental health services for adults. For instance, the Triple Aim of the Institute for Healthcare Improvement (IHI), widely used in evaluating health care in general, focuses on health outcomes, patient experience, and costs per member per year. But in child mental health, outcomes must be assessed over time, addressing developmental resilience, not just in the moment; the experience of parents must be assessed along with those of children; and relevant costs are dispersed (and must be measured) across the domains of healthcare, mental health services, education, and child welfare. In this presentation we will discuss such difficulties in evaluation and how mental health should be measured, present data from the WHO Atlas Projects (including the global atlas as well as the Eastern Mediterranean Atlas), and discuss shortcomings and evidence gaps from these atlases.



3310 - WHO Atlases: Past and Future

United States Hesham Hamoda

The WHO in collaboration with other organizations including IACAPAP has published several atlases over the years mapping child and adolescent mental health services. This included a 2005 Global Atlas and a 2012 Atlas from the Eastern Mediterranean Region (EMR). In this presentation we will review important findings from these atlases as well as lessons learnt, shortcomings and pitfalls. We will also discuss future atlas plans.



#### 3321 - The WHO Atlas: Lessons for the Future

Professor Myron Belfer

The World Health Organization ATLAS of child and adolescent mental health services and policy followed on the ATLAS for adult mental health services and policy. This was a collaboration with the International Association for Child and Adolescent Psychiatry and Allied Professions and the Global Child Mental Health Initiative of the World Psychiatric Association. The objective was to ascertain data that previously was largely anecdotal. The metrics for the ATLAS were not subject of research and in retrospect had certain significant gaps. Another weakness was the lack of key informants in many countries thus limiting the generalizability of the data. However, even with these limitations the ATLAS provided substance for a global discussion of gaps in services and policy and served for many as a stimulus for action. A new child and adolescent mental health ATLAS can benefit from and supplement the advances made in the past decade regarding data gathering and the development of more national focal points. A research base for the metrics to be used will lead to data that may enhance program and policy development. The more recent ATLAS in the EMRO region added to our knowledge and suggested the importance of gathering more school and family data. The ultimate goal is for governments to prioritize child and adolescent mental health as it should be to address excess morbidity and mortality in this age group and to foster policy.



#### 3477 - Evaluation in Child Mental Health: Challenges and Remedies

Associate Professor Gordon Harper

In many countries, evaluation of mental health services for children and youth has been more complicated than parallel efforts to assess general health services and mental health services for adults. For instance, the Triple Aim of the Institute for Healthcare Improvement (IHI), widely used in evaluating health care in general, focuses on health outcomes, patient experience, and costs per member per year. But in child mental health, outcomes must be assessed over time, addressing developmental resilience, not just in the moment; the experience of parents must be assessed along with those of children; and relevant costs are dispersed (and must be measured) across the domains of healthcare, mental health services, education, and child welfare. In addition, demands for early results often result in greater attention to processes (including deployment of services, access to services, and quality of care provided), while actual health outcomes, although more important, are more difficult to measure. As a result, a gap may develop between academic evaluations and policies recommended and implemented. Examples of each challenge and corresponding remedies will be presented.



## 3505 - How Should we Measure Mental Health Today?

Professor Bruno Falissard Director of CESP/INSERM U1018 (Centre de Recherche en Epidemiologie et Santé des Populations)

The WHO definition of mental health in 2001 represented an important symbolic turn. Mental disorders are now embedded in the much broader concepts of mental health and global mental health. This however raises issues concerning metrics and assessment: it has been a long way to measure burden of mental disorders, how should we measure mental health today?



S05-12: Longitudinal Course of Psychotic Disorders during Youth: Clinical, Cognitive and Imaging data from Clinical and High Risk Samples

Dr Gisela Sugranyes August Pi i Sunyer Biomedical Research Institute

Psychosis is a disabling condition which originates during neurodevelopment. The first years of the disease are considered critical for understanding the etiology of the disorder and for determining long term patient outcomes.

In the current symposium we will present longitudinal data from a cohort of youth at familial risk for the disease and from a cohort of youth with a first episode of psychosis, for whom we will provide clinical, cognitive and neuroimaging data.



## 3088 - Young Offspring of Patients with Schizophrenia or Bipolar Disorder: Longitudinal Course of Clinical and Neurocognitive Characteristics

Dr Elena De la Serna

Objective: This study has two objectives: to assess follow-up clinical and cognitive measures in offspring of patients with schizophrenia (SzO) or bipolar disorder (BpO) and to assess the influence of sub-clinical psychotic symptoms on cognitive variables.

Methodology: Four year follow-up assessment of 41SzO, 90 BpO and 107 offspring of community controls (CcO). All children and adolescents were assessed using the structured interview K-SADS-PL and prodromal symptoms scale (SOPS). A complete neuropsychological battery was carried out.

Results: SzO had higher percentages of lifetime general psychopathology, comorbid ADHD and disruptive disorders than BpO and CcO. BpO showed higher rates of mood disorders than the other groups. An increase in the percentages of mood disorders, anxiety disorders and other diagnoses was observed over the time for each of the three groups, with no significant time x group interactions. SzO obtained higher scores than CcO in the positive, negative and disorganized sub-scales of the prodromal symptom scales. No significant differences were observed in these sub-scales between BpO and CcO. The variable time and time x group were not significant.

In cognition, SzO displayed lower scores than BpO and CcO in verbal comprehension, perceptive reasoning, working memory, global capacity index, logical memory delayed recall, verbal learning delayed recall, and visual memory (immediate and delayed recall). For processing speed, both high risk groups showed lower scores than CcO. In verbal learning immediate recall, SzO obtained lower scores than CcO but these differences were not detected between SzO and BpO or between BpO and CcO. Finally, positive, negative and disorganized prodromal symptom sub-scales showed an influence on the following cognitive variables: verbal comprehension, working memory, processing speed, logical memory, verbal learning and visual memory.

Conclusions: SzO showed higher percentages of psychopathology and prodromal symptoms, and poorer cognitive function than the other groups. Prodromal symptoms appear to exert an influence on cognitive function in youth at familial risk for bipolar disorder or schizophrenia, and may signal individuals at increased biological risk for the disease.



## 3096 - Longitudinal Change in Cortical Morphology in Young Offspring of Patients With Schizophrenia or Bipolar Disorder

Gisela Sugranyes

Objective: Cortical surface area and thickness abnormalities have been observed in patients with schizophrenia and bipolar disorders; however, no study thus far has examined cortical morphologic measurements in children and adolescents at genetic risk for the disorders comparatively employing a longitudinal approach.

Method: One hundred thirty-seven participants, including 36 offspring of patients with schizophrenia (SzO), 54 offspring of patients with bipolar disorder (BpO), and 47 offspring of community controls (CcO), 6 to 17 years old, were assessed with clinical and neuroimaging methods. Sixty-nine percent of the sample was reassessed at a 27.6- month (mean) follow-up. Cortical surface reconstruction was applied to measure cortical area and thickness using FreeSurfer; mixed-effects models were used to investigate cross-sectional and longitudinal differences in global and lobar morphologic measurements.

Results: The SzO group exhibited a cross-sectional decrease in global, parietal, and occipital lobe surface area compared with the CcO group, and in the occipital lobe compared with the BpO group. In the SzO group, global and parietal surface area values were inversely associated with attenuated positive and negative prodromal symptom scores. No cross-sectional differences in cortical thickness were observed. Division of the sample by pubertal status showed group-by-time interactions in the pubertal and postpubertal SzO subgroup, with less longitudinal decrease in cortical surface area and thickness than in the CcO and BpO subgroups, respectively. Conclusion: The SzO, but not the BpO, group was characterized by cross-sectional decreases in surface area, and this was associated with prodromal symptoms. Our results also suggest that the trajectory of normative loss of surface area and cortical thickness during adolescence may be influenced by risk for schizophrenia, and that longitudinal changes in cortical morphology in high risk youth may be expressed differently according to developmental stage. Extended follow-up will allow to elucidate which of these findings are predictive of disease.



3099 - Longitudinal Course Of Cognitive Function in Adolescents with a First Episode of Psychosis: Cognitive Stability or Cognitive Decline?

Marta Rapado-Castro

Cognitive deficits are predictors of functional outcome in patients with psychosis. Cognitive impairment has been shown to present early in the first episode and in at risk mental states contributing to ongoing cognitive impairment over time. Studies examining longitudinal course of cognitive performance in psychosis have led support for an altered development of cognitive functions in adolescents with psychosis. However the differential cognitive trajectories in early onset schizophrenia (SZ) vs. bipolar disorder (BD) have not been assessed to date. We aimed to assess longitudinally the cognitive function of early onset psychosis (EOP) patients over 5 years. Methods: A sample of 107 patients (mean age 15.50 [9-17]) and 98 matched controls (mean age 15.17 [9-17]) completed baseline assessments. Of those, 75 patients and 79 controls completed 2-years and 73 patients and 63 controls completed 5-years longitudinal cognitive assessments respectively as part of the CAFEPS study). Cognitive domains were assessed with a neuropsychological battery that included measures of attention, working memory, learning and memory and executive functions (z-scores). A mixed model analysis was used to examine differences between diagnostic groups in longitudinal cognitive performance using age, gender, medication, DUP and symptoms as covariates of no interest. Only significant variables were included in the final mixed model.

Results: All participant groups showed a significant improvement in executive function (Z=5,60; p<0.001) and attention (Z=4,64; p<0.001), whereas working memory performance remained stable over time. SZ and BD diagnostic groups showed significant cognitive impairment with regards to controls in all cognitive domains: attention (SZ:Z=-4.29;P<0.001; BD:Z =-2.81;P=0.004), working memory (SZ:Z=-2.68;P=0.007;BD:Z = 2.17;P=0.024), learning and memory (SZ: Z=-5.61;P<0.001;BD:Z=-4.97;P<0.001), and executive functions (SZ:Z=-7.95;P<0.001;BD:Z=-5.99;P<0.001). No significant differences were observed between the two groups in any cognitive domain.

Conclusion: Adolescents with psychosis presented a specific cognitive arrest in all cognitive domains evaluated compared with their healthy counterparts during the first five years after illness onset. Our results suggest that during adolescence, patients seem to follow an abnormal neurodevelopmental trajectory in which widespread cognitive dysfunction is a characteristic of both SZ and BD subgroups



### 3102 - Longitudinal Brain Changes in Children and Adolescents with First-Episode Psychosis

Covadonga M Diaz-Caneja

Objectives: Meta-analyses suggest progressive decreases in gray matter (GM) volume in patients with first-episode psychosis compared to healthy controls (HC) during the first few years of illness. In early-onset psychosis (onset of psychosis before age 18; EOP), progressive brain changes in frontal GM volume have been reported in 2- to 3.5-year follow-ups. Our aim was to assess longitudinal volumetric changes in patients with EOP during the first five years after disease onset.

Methods: Naturalistic, prospective, 5-year follow-up study including patients with a first episode of EOP and a sex and age-matched HC sample. Brain MRI was performed at baseline and at 2-and 5-year follow-ups. Diagnoses were established in the 5-year visit using the Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS). FreeSurfer was used for measuring total GM and white matter (WM) volume and lobar GM volumes. ANCOVAs were used to compare change in GM volume between EOP and healthy controls through the 5-year follow-up, controlling for age, total intracranial volume and site. Sidak post-hoc tests were used to compare volumetric changes between patients with early-onset schizophrenia (EOS) and early-onset bipolar disorder (EO-BD).

Results: Thirty-six patients with EOP (age at baseline  $15.8 \pm 1.7$  years, 66.6% male) and 36 HC (age at baseline  $15.4 \pm 1.4$  years, 55.6% male) comprised the study sample. At follow-up, 14 patients were diagnosed with schizophrenia, 11 were diagnosed with bipolar disorder and 11 received a diagnosis of other psychosis. During the first two years of follow-up, patients with EOP showed significantly greater reductions than HC in total GM volume (F=7.8, p=.007), as well as in GM volume in the left (F=5.8, p=.019) and right (F=4.55, p=.037) frontal lobes, the right occipital lobe (F=4.87, p=.031) and the left parietal lobe (F=6.30, p=.015). Within this period, patients with EOS showed significantly greater reductions than patients with EO-BD in total GM volume (p=.002) and GM volume in the left occipital lobe (p=.006). No significant differences were found in changes in GM volume between patients with EOP and HC or between patients with EOS and EO-BD between the 2- and 5-year follow-ups.

Conclusion: The first two years after a first episode of EOP might constitute a critical period for the development of deficits. Within this period, patients with EOS show more marked changes than EO-BD, suggesting greater neurobiological severity.



# **CANCELLED S05-13: Prediction of outcomes in early-onset psychosis:** pitfalls and promises

PhD Laura Pina-Camacho Child and Adolescent Psychiatry Department. Hospital General Universitario Gregorio Marañón, CIBERSAM, IiSGM, School of Medicine, Universidad Complutense de Madrid, Madrid, Spain

Personalised or precision medicine aims at tailoring medical decisions and interventions to the individual patient based on their predicted illness course or risk of disease. This would involve, for example, matching individual patients with the most effective psychological or pharmacological treatments while minimizing the risk of adverse events. This could have many benefits for patients and society and reduce the healthcare costs arising from the use of inappropriate or suboptimal treatments. In keeping with this, and given the global burden and the clinical heterogeneity of psychotic disorders, early identification of psychosis patients at higher risk of adverse outcome remains a priority. This is particularly relevant in those with early-onset psychosis (EOP; i.e onset before age of 18), as their neurobiological and psychosocial development is not yet complete. In this symposium we aim to (i) perform a comprehensive review of the literature to date on the prediction of poor outcomes in EOP and (ii) present novel research in this field based on longitudinal prospective studies targeting the search for such predictors.



3348 - Prediction of treatment outcomes in early-onset psychotic disorders: is there room for a personalized medicine approach in child psychiatry?

Laura Pina-Camacho

Department of Child and Adolescent Psychiatry, Hospital General Universitario Gregorio Marañón, CIBERSAM, IiSGM, School of Medicine, Universidad Complutense de Madrid

Objective: In this session we aim to present data from a comprehensive review of the available literature on the prediction of poor outcomes in early-onset psychosis (EOP), and to reflect on the place of personalised medicine approaches in these disorders of childhood and adolescence. Methods: The systematic review included 75 original articles using longitudinal naturalistic designs. Results: This review found that literature so far on treatment outcomes in EOP is scarce (e.g., there is just one study on treatment adherence, and one study on treatment discontinuation in EOP samples) and that only one study analyzed prescription of clozapine as an outcome (which was reportedly associated with longer duration of index hospitalization and being male). In this systematic review, we also found that the most replicated predictors of other poor outcomes (e.g., relapsing course, poor functioning, more deteriorating course) were a positive history of premorbid difficulties (developmental delays and poor premorbid adjustment), greater symptom severity at first episode (especially of negative symptoms) and longer duration of untreated psychosis (DUP). Conclusion: This review posited that research based on long-term longitudinal studies and with potential for replication could help identify subjects with EOP at higher risk of poor outcome, in line with evidence-based precision medicine approaches. This knowledge could indeed be used to guide available treatment strategies and development of novel treatment options, and ultimately improve patient outcomes. Further to this review, the speakers of this symposium have aimed at conducting novel research on this field, i.e. targeting the search for various predictors of relevant outcomes in EOP samples. Findings derived from this work will be presented in the second part of the symposium.



3357 - The relationship between duration of untreated psychosis (DUP) and poor clinical, cognitive and functional outcomes in early-onset first-episode psychosis: a 2-year longitudinal study in a Spanish cohort

**David Fraguas** 

Department of Child and Adolescent Psychiatry, Hospital General Universitario Gregorio Marañón, CIBERSAM, IiSGM, School of Medicine, Universidad Complutense, Madrid, Spain

Objective: Longer duration of untreated psychosis (DUP) is a well-replicated predictive factor of worse outcome in early-onset psychosis (EOP) in keeping with what has been found in adult-onset psychosis samples. In this session, data on the influence of DUP on various outcomes at 2-year follow-up in subjects with first-episode EOP will be presented and discussed. Methods and Results: A first study including a total of 80 subjects (31.3% females, mean age  $16.0\pm1.8$  years) with a first episode of EOP of less than 6 months' duration showed that longer DUP was associated with poorer clinical and functional outcomes (lower C-GAF scores at 2 years - Beta=-0.13, p<0.01; less increase in C-GAF - Beta=-0.01, p<0.01; and lower rates of clinical remission, OR=0.91, p<0.01). A second study with the same sample but including a total of 66 subjects (28.8% females, mean age  $16.2\pm1.6$  years) showed that shorter DUP was associated with greater improvement in executive function over the 2-year follow-up period (e.v. 8.7%, p=0.013). Conclusion: These findings support the importance of early detection programs, which help shorten DUP, a modifiable risk factor of poor outcomes in children and adolescents with first-episode psychosis.



3365 - Co-morbid autism spectrum disorders (ASD) and negative symptoms at first psychotic episode predict multiple treatment failure of antipsychotics in children: findings from a cohort study in UK

Johnny Downs

Department of Psychological Medicine. Institute of Psychiatry Psychology Neuroscience, King's College London & NIHR South London and Maudsley Biomedical Research Centre

Objective: In this session, we will present data from a study which aimed to investigate, in a sample of first-episode early-onset psychosis (EOP), the prospective association of demographic and clinical variables at first presentation to services with 'multiple treatment failure' (MTF), a proxy for reduced antipsychotic effectiveness (i.e. initiation of a third trial of novel antipsychotic due to insufficient response, non-tolerable adverse effects or non-adherence). Given previous findings on the adult literature and on the review by Diaz-Caneja et al (discussed in Abstract 1), we hypothesized that presence of premorbid difficulties (e.g. comorbid neurodevelopmental disorders) and of prominent negative symptoms around first presentation to services would be positively associated with MTF in children with EOP. Methods: Data were obtained from a clinical cohort of 638 children (51% male) with FEP, aged 10-17 years, referred to inpatient and outpatient services in South London, UK, using the Clinical Record Interactive Search (CRIS) system. Presence of negative symptoms at first presentation, co-morbid neurodevelopmental disorders (autism spectrum disorders –ASD, intellectual disability and hyperkinetic disorders), unique antipsychotic medications prescribed in a 5-year period, and reasons for MTF were extracted from electronic patient records. The association between the above risk factors and the development of MTF over a 5-year period was modeled using Cox regression, adjusting for a range of covariates. Results: Out of the 638 children, 114 (17.9%) presented with ASD comorbidity; 239 (37.5%) with ≥2 negative symptoms documented at first episode; and 124 (19.3%) developed MTF prior to the age of 18. Both the presence of negative symptoms at first episode (adjusted hazard ratio [aHR]1.75; p=.007) and a comorbid diagnosis of ASD (aHR 1.73; p=.03) were significantly associated with MTF. Other factors associated with MTF included older age at first presentation (aHR 1.29; p=.001) and Black ethnicity (aHR 1.89; p=.009). Conclusion: Presence of prominent negative symptoms and co-morbid ASD at first presentation help delineate a subset of children and adolescents with psychosis who are at higher risk of responding poorly to antipsychotics. Children with these risk factors may require early optimisation of current therapeutic approaches or early alternatives to conventional antipsychotic treatment to improve their outcomes.



3368 - Predictors of weight gain and metabolic disturbances after six months of treatment with second-generation antipsychotics in antipsychotic naïve pediatric patients

Covadonga M. Diaz-Caneja Department of Child and Adolescent Psychiatry, Hospital General Universitario Gregorio Marañón, CIBERSAM, IiSGM, School of Medicine, Universidad Complutense de Madrid

Objective: Second-generation antipsychotics (SGA) have been consistently associated with weight gain and other metabolic disturbances both in pediatric and adult populations. In children and adolescents, and particularly in those with early-onset psychotic disorders, the identification of those individuals at higher risk of developing these non-tolerable side-effects, leading to treatment failure and overall to poor psychiatric and physical health outcomes, could lead to development of personalized approaches with the use of alternative or more intensive interventions in this population subgroups. In this session, we will present data derived from a study which aims to identify predictors of weight gain after six months of treatment with SGAs in pediatric drug-naïve patients. Methods: This naturalistic, prospective study assessed anthropometric and metabolic changes after one, three and six months of treatment with SGAs in antipsychotic-naïve (defined as having a total lifetime exposure to SGAs ≤10 days) pediatric patients. Linear regression models were used to identify predictors for changes in body mass index (BMI) age- and gender- adjusted Z-scores after six months of treatment with SGAs in. Age, sex, baseline BMI Z-scores, early changes in leptin and adiponectin (at month 1), antipsychotic, and 6-month cumulative antipsychotic dose in chlorpromazine equivalents were included in the models. All the statistical analyses were performed with SPSS 18. Results: Fiftyeight pediatric patients (age  $15.69 \pm 1.66$  years, 72.4% male) comprised the study sample. Out of these 58 patients, 70.7% had a diagnosis of psychosis, 58.6% were on risperidone, 31% were on quetiapine and only 5% received olanzapine. After six months of antipsychotic treatment, BMI Z-scores increased significantly (0.65  $\pm$  0.69, p<0.001). Within this period, 83% pediatric patients presented with a clinically significant increase (defined as ≥0.5) in BMI Z-scores. Controlling for cumulative antipsychotic dose, early changes in leptin were the only predictor of changes in BMI Z-scores (F=14.34, p<0.001; r2=0.45). Conclusion: Early changes in leptin seem to be a good predictor of weight gain after six months of treatment with SGAs in pediatric patients, and could help to early identify patients at higher risk of developing clinically significant weight gain in the long term.



# S05-14: Early Feeding Disorder, prevention and treatment in multiple cultures: evidence from Switzland, Israel and France

## S05-14: Early Feeding Disorder, prevention and treatment in multiple cultures: evidence from Switzland, Israel and France

Dr. Sylvie Viaux Savelon APHP, CHU Pitié Salpetriere

It is estimated that approximately 25% of normally developing children experience feeding problems, with 1-2% having severe feeding difficulties associated with poor weight gain. Child feeding disorders (FD) are diagnosed when children persistently fail to meet appropriate nutritional and/or energy needs, associated with failure to achieve expected weight gain or faltering growth in children. FD often results in failure to thrive. Severe FD are associated with poor consequences, such as susceptibility to chronic illness, growth failure, delay in motor and social development, deficits in cognitive development, and later eating disorders. Beyond its physical correlates, observational studies support the association between FD and mother-infant relationships. It is therefore important to intervene in early ages.

This symposium brings together various international clinic and research teams to address early intervention in feeding disorder, experienced in different ages and in different cultures. In the first presentation, the French team will present an intervention program for neonates with severe somatic pathologies, focusing on the importance of the preventive oral support. Then, the Israeli team will introduce an integrative approach for intervention with infants born preterm from the NICU into the community.

And in the third presentation, the Israeli team will present evidences from a research conducted in Israel, showing the risk of maternal worry of infants' under-weight and a related intervention program will be presented.

Finally, the Swiss Team will present the results of their study on the Attachment patterns and mentalization capacities of children at risk of obesity

A short discussion will follow these four presentations.



# S05-14: Early Feeding Disorder, prevention and treatment in multiple cultures: evidence from Switzland, Israel and France

## 3163 - Prevention of orality disorders and Individualized Developmentally Supportives Cares (IDSC) in severe somatic neonatal pathologies.

Dr, PhD Sylvie Viaux Savelon APHP, CHU Pitié Salpêtrière, UPEP Vivaldi, Departement of Child and Adolescent Psychiatry

Objectives: Neonates, born with severe congenital malformations, often require a high level of surgical and medical care. They often stay a long time in neonatal intensive care unit (NICU) with deep sedation and present delayed oral nutrition.

For this population orality disorders are among the main short-term complications after the acute period in the NICU and they will move on long-term disorders if not prevented.

The association of postnatal discovery of the diagnosis, the complex technical care (often pain full) and the prolonged stay in NICU has important consequences for the infant's development and for the parenthood in short and long term outcomes.

In this session, we aim to report our program for this specific neonatal population based on preventive care for orality disorders with sensorimotor's approach of A. Bullinger and Individualized Developmentally Supportives Cares (IDSC).

Methods: we will present the different stages of this program through the clinical course with videos of a newborn who is suffering from an oesophagus' atresia, diagnosed at birth and the course of his family.

Results: Such malformation as oesophagus'atresia precludes the newborn to swallow his saliva. Oral feeding is avoided until restorative surgery and oesophagus' healing. In most of these cases, the postoperative course is uneventful, even if acquisition of autonomous feeding is more difficult. In some situations, the postoperative course gets complicated and the avoidance of oral feeding can be prolonged for a longtime.

This case illustrates how the sensori-motor's approach of A.Bullinger, and especially, individualized developmentally supporting cares (IDSC), allow progressing together with the infant towards a positive investment of the orality' sphere. Parents and professionals should always focus attention on the global development of the infant. According to the capacities of the baby observed daily, the developmental temporality will be a guide for all caregivers.

Conclusion: The early oral support is one of the basic subjects of a global approach that we set up in this program for neonates with severe somatic pathologies where the parents can take an essential active role in the cares of their newborns.



# S05-14: Early Feeding Disorder, prevention and treatment in multiple cultures: evidence from Switzland, Israel and France

3166 - Attachment security and mentalization capacities in 8-12 years old children at risk of obesity.

Doctor in psychology Ayala Borghini SUPEA

Objectives: The aim of this communication is to explore how attachment insecurity and low mentalization capacities can contribute to childhood eating behaviors leading to overweight. Links with food intake and choice, particularly in the context of social stress, will be done.

Methods: A population of 24 7-to-11-year-old children with overweight (BMI  $\geq$  90(th) percentile) is compared to 26 normal weight children. Attachment interviews are conducted for all participants allowing the assessment of attachment quality and mentalization capacities using the Web-CAME, a q-sort that evaluates these competencies during childhood.

Results reveal that children with overweight have significantly less secure attachment representations and lower mentalization capacities. Particularly, disorganized representations and shifts between openness to internal representations and moments of strong avoidance, concrete thinking and hostility toward mentalization process are more frequently observed.

Conclusion: This study indicates that social and affective factors exert critical influences on the onset of childhood overweight during school years.



# S05-14: Early Feeding Disorder, prevention and treatment in multiple cultures: evidence from Switzland, Israel and France

### **3478 - Child Feeding Disorder and Maternal Worry: From research to intervention**

Senior lecturer Naama Atzaba-Poria Ben-Gurion University of the Neguev, Department of Psychology

Feeding disorders (FD) are often perceived as a transactional or relationship disorder in the mother-child dyad. In a recent study we found that mothers of children with FD expressed more concerns about infants' weight and undereating. Furthermore, maternal concern about infants' weight fully mediated as well as moderated the links between feeding disorders and maternal emotional availability during feeding. Specifically, mothers at the FD group were more concern about infants' weight, this, in turn, was related to higher levels of maternal intrusiveness and lower levels of maternal structuring during feeding. Furthermore, mothers of children having FD, who were more concern about children's weight, were less positive in their interaction with their children. However, lower levels of maternal concerns about child's weight, buffered this link.

These results highlight the dyadic nature of FD in early childhood, and suggest that maternal cognitions may act as a risk factor for the mother-infant relationship. Based on this understanding we developed an intervention program aiming to detour from maternal worry and stress, while using the central role of play to promote child development and positive parent-child relationships. The socio-cultural influences putting the mother-child relationship at-risk when having children with FD will be discussed.



## S05-14: Early Feeding Disorder, prevention and treatment in multiple cultures: evidence from Switzland, Israel and France

#### 3483 - An interactive approach in preventive occupational therapy

Psychologist Orit Zivan Beersheba University Medical Center, Department of Child Psychiatry of Soroka

Extensive research indicates a high rate of feeding disorders in premature babies, especially feeding avoidance. Feeding in infancy is a mutual activity involving both the parent and the baby. Feeding interaction in premature babies is at high risk due to a number of reasons: 1. A sudden and/or traumatic birth affects the process of attachment and increases the level of anxiety leading to over interference and intrusiveness in feeding. 2. The lack of anatomic, physiologic and neuro-behavioral maturity, affects, among others, the way the premature babies are eating, their sleep-awake cycles, and their low reactivity levels, making it hard for the parent to understand their signs. 3. The immature sensing systems are often challenged in a surrounding environment flooded with stimulations. The difficulty in sensing adjustment leads to avoidance behaviors in feeding too. A combination of these elements may lead to feeding avoidance and later, to an intrusive feeding interaction that is triggered by a high level of anxiety. In this presentation, the integrative intervention method, developed in Soroka Medical Center will be presented. This approach combines a heterogeneous team work of social workers, physiotherapists, dietitian and occupational therapists, in personal and group guidance within the Neonatal Intensive Care Unit, while addressing the emotional, sensory and neuro-behavioral aspects of the child and parents, and the generation of a compatible environment for proper continued development within the Neonatal intensive care unit (NICU) and after leaving it. Furthermore, the intervention continues following the discharge from the NICU, with parental guidance given by the child development center and the preschool psychiatric unit. Finally, the integrative team continues their work at the community, guiding the health care nurses at the community, on how to support and guide parents of preterm infants to prevent the development of feeding disorders



S05-16: Transition in psychiatry - basics, requirements and prospect

PD Ulrike M.E. Schulze University of Ulm, Department of Child and Adolescent Psychiatry/Psychotherapy

As transition in psychiatry poses an international challenge, prior to an improvement and the implementation of sustainable recommendations and guidelines a detailed inventory concerning operational practice and needs is necessary. Another focus has to be laid on dissemination activities, as such concrete requirements of interdisciplinary cooperation and the sustainability of agreements. In the context of the EU-funded MILESTONE project on transition which is in progress, essential parts of the basic work have been carried out to date. While results of a nationwide survey point to obviously existing critical gaps between current operational practice and best practice guidelines of care, the issue of transition within the training of professionals has to be referred as still inconsistent and insufficiently considered. Based on the results of a trans-European survey, recommendations towards the different aspects of support and training models for transition will be formulated. Finally and in accordance with a concrete example developed by the two German psychiatric expert societies, the preparation of a common European key issue paper of professionals will be encouraged - with a view on a mutually well-conceived and coordinated establishing of "transition psychiatry".



## 3479 - Transition with a view on the Republic of Ireland: advances and operational practice

PhD Niamh Niamh McNamara Nottingham Trent University

Aim: Transition from child to adult mental health services are recognised internationally as problematic. Given the fact that Ireland has one if the highest EU suicides rates in 15-19 year olds, it is necessary to understand potential gaps in services by looking at the age of transition in question, examination of the policy, process and experience of child and adult mental health services.

Methods: By means of a nationwide (HRB funded) mixed survey of transition policies of child and adult community mental health teams in both services, structured interviews with 57 consultant psychiatrists were conducted in order to obtain detailed information.

Results: A lack of standardised practice nationwide regarding the service transition boundary, an absence of written transition policies and protocols, and minimal formal interaction between child and adult services could be ascertained.

Implications: Critical gaps between current operational practice and best practice guidelines obviously exist. Strengthening the transition between child and adult mental health services at this crucial age might improve mental health treatments, continuity of care and help reduce the rates of death and suicide in this vulnerable group.



#### 3484 - Does European transition-related training already work?

Prof. Diane Purper-Ouakil

Background: So far, training in psychiatry is identified as one of the barriers in transition from Child and Adolescent Psychiatry to the Adult Mental Health Care System in Europe. Therefore, as a basis for further recommendations, the current training practice in both disciplines should be assessed in order to describe the actual "status quo".

Methods: As part of an EU-funded research program - the MILESTONE project - which is dedicated to the improvement of transition in psychiatry, two systematic reviews about training (concerning psychiatry training and the topic of transition within) were carried out.

Results: Despite a significant progress on several major issues, harmonisation in psychiatric training over Europe remains still incomplete. Moreover, three coexisting models of training in General Adult Psychiatry and Child and Adolescent Psychiatry could be ascertained.

Conclusion: The appreciation of transition as a part of training in psychiatric training across Europe must be considered as "still in the early stages".



3503 - "Transition psychiatry" across Europe — a mutual challenge

Prof. Dr. Joerg Fegert University of Ulm, Department of Child and Adolescent Psychiatry/Psychotherapy

In order to establish "transition psychiatry" among experts, common aims should be defined and steps precisely determined. According to an example, developed by the two German scientific associations of child and adolescent psychiatry and psychotherapy, and adult psychiatry and psychotherapy, the preparation of a key issue paper will be outlined and suggestions concerning a comparable European common statement be given.



## 3487 - Transition: current training needs for child and adolescent psychiatrists

Gaelle Hendrickx

The recent published NICE guidelines 'Transition from children's to adults' services for young people using health or social care services' mention that in order to provide effective support to young people during their transition, practitioners need to understand the concept of developmentally appropriate care and what it means within the context of their role and service. Practitioners are getting more convinced that the experience of transition from children's to adults' services for young people should be improved. An important aspect to improve this experience is the training on the different aspects of transition a practitioner receives. It remains unclear in what way education or training is offered to practitioners.

To draw a precise mapping of adult psychiatry (AP) and child and adolescent (CAP) training in Europe, a survey was circulated to child, adolescent and adult psychiatrist in training, who are members of the EFPT (European Federation of Psychiatric trainees). This survey was part of the large EU- Milestone project. In our presentation we will focus on the results of this survey and formulate recommendations towards the different aspects of support and training models for transition.



#### **S05-19: Clinical and Social Perspectives on Teen Pregnancy**

#### 2419 - Clinical and Social Perspectives on Teen Pregnancy

Prof. Dr. Lois Flaherty Harvard University

Objectives: The objective of this symposium is to educate child psychiatrists and other mental health professionals on the complex issues that arise for pregnant and parenting adolescents, generally seen as a high risk group for poor maternal and infant outcomes.

Methods: This symposium will address issues such as engagement, assessment, empowerment and treatment for these teens and their babies in the context of case presentations by experienced clinicians. Discussion will focus on the role of mental health professionals, the importance of social support and the effects of psychosocial adversity on the teenage mother and her child. We will discuss questions of why some teen mothers improve their life trajectories whereas others do not and how we as communities and as healthcare providers help or harm these mother-infant couples. We will examine: 1) the impact of stigma on teen mothers and on their babies, including the voices of lived experience for teen mothers; 2) the influence of stigmagenerated stress on adolescent and infant social and neuropsychological development, 3) the maternal-child relationship in the context of development and stress; 4) empirical data about interventions for both pregnancy prevention and developmental support; 5) aspects of public policy that support or interfere with optimal health and development for teen mothers and babies.

Results: Although outcomes for infants of teen mothers remain below population averages, having a baby can be a turning point in the lives of some teen mothers, who have outcomes that are better than those of peers matched for SES.

Conclusions: Mental health professionals can work with pregnant and parenting adolescents to optimize the mental health of the adolescents and their children. Clinicians need to understand the challenges faced by parenting and pregnant adolescents and their children. Stigma against teen mothers and their babies is often overlooked or justified in social systems, including the healthcare system, and in government policies. Stigma has clearly been shown to impose stress on socially vulnerable groups and to be associated with poor outcomes for them. Greater awareness of the impact of stigma is needed as well as changes in attitudes, health care delivery, and social policy in order to reduce stigma and better support teen parents and their babies. Keywords: Adolescent parents, adolescent mental health and development, infant mental health and development, social stigma.



### S06-01: Children of parents with mental illness: problems, needs and interventions

Prof. Giovanni de Girolamo St. John of God Clinical Research Centre

Mental illness in parents is a biological and environmental risk factor to which young people are exposed. Living with a parent suffering from a mental disorder may have a variety of detrimental consequences, including: (a) the reversal of caregiving ("parentification"), similarly to what happens in children looking after somatically ill parents; (b) the exposure to an adverse environment, where developmental needs of the child (emotional and practical) might be repeatedly neglected due to lack of parental resources or to a compromised family functioning (lack of communication, high expressed emotion, etc..); (c) stigma and discrimination. The main of this symposium is to provide a comprehensive review of the current state of research in this field, identifying the main areas of needs of these children, providing data about their and discussing some interventions which have been developed and tested so far.

Given the high toll paid by children having parents suffering from severe mental disorders, it is urgent to develop, test and implement structured programmes to help these children cope with stressful circumstances and improve their resilience. This symposium wants to provide a contribution in this direction.



### 3061 - NEXT STEPS IN THE RESEARCH ON CHILDREN OF MENTALLY ILL PARENTS

Prof. Dr. Hanna Christiansen Philipps University

Mental health problems are highly frequent and associated with large societal and economic costs, and significant disability adjusted life years. Children of parents with mental disorders are at an increased risk to develop these disorders themselves. According to international studies, approximately 25 % of the children/adolescents worldwide are living with a mentally ill parent. Having a parent with a mental illness has been associated with multiple psychological and developmental risks for children. Long-term studies have shown that Children Of Parents with a Mental Illness (COPMI) have a higher life-time risk of developing severe mental disorders that ranges between 41 and 77 %; subclinical symptoms often present earlier, however. Thus, COPMI are most likely to constitute the next generation of patients with a mental illness associated with significant DALYs and economic costs. A recent meta-analysis of the transgenerational transmission of parental mental disorders on children's symptomatology revealed specific effects of parental disorders on children. A meta-analysis of the cross-sectional association between paternal and maternal psychopathology on children's internalizing and externalizing behavior problems further revealed parent specific gender effects. There is a general lack of studies on the specific risk transmissions for the broad range of parental disorders other than affective and anxiety disorders. While there is empirical support for assumed transgenerational transmission processes (ie, genetics), the majority of those has been studied in single dimensions (ie, focussing on family or child factors or on genetics), but not comprehensively as the complexity of the transgenerational transmission interactions necessitates. The aim of the present talk will be twofold: (a) presenting the unanswered questions in COPMI research; and (b) identifying next steps for prevention and intervention approaches for COPMI.



# 3063 - THE DANISH HIGH RISK AND RESILIENCE STUDY VIA 7: A POPULATION-BASED COHORT OF 7-YEAR OLD CHILDREN WITH PARENTS SUFFERING FROM SCHIZOPHRENIA OR BIPOLAR DISORDERS: FIRST RESULTS AND FUTURE PERSPECTIVES

Professor Anne A.E. Thorup Copenhagen University Hospital, Mental Health Centre Copenhagen, Mental Health Services, Capital Region of Denmark

Background: Familial high-risk studies are important and relevant and may represent a possible shortcut to learning more about early markers of illness, mental vulnerability, resilience and preventive perspectives.

Method: The Danish High Risk and Resilience Study – VIA 7 is a prospective cohort study of 522 7-year old children, 202 of them born to at least one parent diagnosed with schizophrenia in the Danish registries, 120 of them born to a least one parent diagnosed with bipolar disorder and 200 of them born to parents without any of these diagnoses. A comprehensive battery has been used combining assessments from several domains for both parents and children.

Results: Results show that children born to parents with schizophrenia or bipolar disorder score higher on the CBCL than controls, indicating early mental problems. Further there are marked differences between the three groups concerning socioeconomic status, frequency of psychopathology, neuro-cognition, motor functioning and home environment.

Discussion: Results from the first assessment in VIA 7 indicate that many children and families have unmet needs and problems. Perspectives are two-fold: we follow the cohort and conduct a new assessment before puberty (at age 11). Simultaneously, we have evolved an early, integrated, specialized and family based intervention, called VIA Family as an attempt to prevent or ameliorate development of severe mental illness in individuals born to parents with schizophrenia or bipolar disorder.



### 3065 - QUALITY OF LIFE IN CHILDREN AND ADOLESCENTS OF PARENTS WITH BIPOLAR DISORDERS

Professor Michal Goetz Department of Paediatric Psychiatry, Motol University Hospital

Background: Offspring of parent with bipolar disorder (OB) are at high genetic as well as environmental risk for a wide spectrum of emotional and behavioral problems. A severe mental disorder in a parent leads to an increase in the level of stress within the family. These factors may negatively involve Quality of Life (QoL) in children and adolescent offspring. While there are many studies on psychopathology in OB, the area of QoL remains understudied.

Methods: 52-item-version of the self-report questionnaire KIDSCREEN was administered to offspring (aged 7-18 years) of bipolar parents (N=40) and to the sex- and age-matched offsprings of healthy parents (N=40). KIDSCREEN is based on the definition of QoL as a multidimensional construct.

Results: No significant differences between OB and controls were found for KIDSCREEN total score of QoL (169.5±27.5 vs. 174,0±40.5; p=0.56). However, when we compared scores between groups in specific domains, OB scored lower in comparison with controls in physical well-being (mean score 17.1 ±9.5 vs. 19.2±3.2; p=0.02), social support and relation with peers (17.7±4.2 vs. 19.7±5.2; p= 0.01) and parent relation resp. home life (19.0 ±3.7 vs. 21.0±3.0; p=0.008). We compared OB with current mood disorder (N=12; KIDSCREEN= 161 ±23.7) vs. OB with current anxiety disorder but no mood disorder (N=13; KIDSCREEN= 164±25.0) vs. OB with current behavioral disorder without mood and anxiety disorder (N=7; KIDSCREEN= 179±32.8) vs. healthy OB (N=11; KIDSCREEN= 179±32.8) vs. control offspring (N=40; KIDSCREEN= 174±40.0). No differences between these groups for KIDSCREEN total score of QoL (p=0.17). However, OB with current mood disorder have significantly lower scores in physical well-being compared to healthy OB and control offspring (13.2±2.9 v.s. 19.5±3.1 v.s. 19.2 ±3.2; p=0.001).

Conclusion: High-risk offspring reported lower satisfaction with physical health, family and peer functioning than controls. Lower scores in the somatic health domain of QoL might be related to significantly higher current mood and anxiety symptoms in the high-risk group compared to controls. Physical symptoms are manifesting in both anxiety and mood disorders. Lower scores in peer and family functioning domain in the OB might root in a higher frequency of the broad spectrum of psychopathology compared to controls and family stress. This points towards the need of specific interventions in this high-risk group of children and adolescents.

This study was supported the Ministry of Health of the Czech Republic, grant nr. 17-32478A.



# 3066 - EMOTIONAL AND BEHAVIORAL SYMPTOMS IN OFFSPRINGS OF MALE VETERANS WITH COMBAT-RELATED POST-TRAUMATIC STRESS DISORDERS

Professor Vlatka BoriČeviĆ MarŠaniĆ Psychiatric Hospital for Children and Adolescents

The presence of posttraumatic stress disorder (PTSD) in war veterans has been linked with family dysfunction and psychopathology in their children. Veterans' numbing/arousal symptoms and anger are predictive of family distress, especially of troubled family relationships and symptoms in family members. Offspring of PTSD male veterans may display difficulties in one or more areas of functioning, including somatization, depression, anxiety, hyperactivity, delinquency, poor socialization, aggression, academic dysfunction and PTSD-like symptoms. The influence of paternal war-related PTSD on offspring behavior problems is complex, reflecting both heritable vulnerability to mental illness and multiple effects on childhood environment.

Our research on psychopathology in clinical populations of adolescent offspring of Croatian male veterans of the 1991-1995 Homeland War in Croatia with combat-related PTSD following exposure to combat violence has shown that mothers' secondary traumatization, family dysfunction and adverse parenting behavior of both parents play a strong role in the development of emotional and behavioral problems including non-suicidal self-injury, suicidal ideations and suicide attempts. The results suggest that treatment programs for offspring of PTSD male veterans with emotional and/or behavioral symptoms should include interventions targeting both adolescent psychopathology and family relationships.



S06-02: Creating New Systems of Care for Transitional Age Youth: Technology, Globalism and Community

Prof. Dr. Niranjan Karnik Rush University Medical Center

This session examines the processes of transition from adolescence to young adulthood in vulnerable populations of young offenders, traumatized youth, and the homeless. Particular attention will be paid to systems of care, new technological interventions, and the impact of globalism.



#### 3140 - Caring for Girls in Residential Care Settings: START NOW Trial

Prof. Dr. Christina Stadler Psychiatry University Clinics Basel

Background: Several studies consistently indicate high prevalence rates of up to 80% of mental disorders in adolescents living in residential care, most notably disruptive behaviour disorders (DBD). Affected females show higher rates of comorbidity (e.g., anxiety or depression) and are at high risk for maladjustment (i.e., school failure, substance abuse, delinquency, child prostitution, early pregnancy, etc.). Therefore, effective treatment approaches are urgently needed to break the vicious cycle of transmitting aggression from generation to generation.

Method: We adapted the evidence-informed, manual-guided skills training program START NOW for female adolescents (Sampl, Trestman & Harrison, 2010). The intervention START NOW primarily employs a DBT-oriented, cognitive behavioral and motivational interviewing-focused treatment approach including trauma sensitive care. START NOW aims to improve emotion regulation, distress tolerance, mindfulness and interpersonal effectiveness. Within the European FP7 research project "Neurobiology and Treatment of Adolescent Female Conduct Disorder: The Central Role of Emotion Processing (see: www.femnat-cd.eu) the effectiveness of START NOW is currently investigated in female adolescents with a diagnosis of conduct disorder or oppositional defiant disorder, both characterized by emotion dysregulation problems.

Results: The study design and main research objectives of the multi-center clinical RCT trial conducted in Switzerland, Germany and the Netherlands will be presented. Further, the modified START NOW modules 1) basic foundational skills, 2) coping with emotions, and 3) interpersonal skills will be described.

Conclusion: The modified START NOW program effectively addresses the needs of European girls with emotion regulation deficits residing in youth care institutions. Its low-cost and manualized framework make it highly suitable for the youth care sector. START NOW offers great potential for enhanced communication and exchange between residential and psychiatric settings.



### 3136 - The role of social media in the World Awareness for Children in Trauma programme (WACIT)

Prof. Dr. Panos Vostanis University of Leicester

Objectives: To critically evaluate the role of social media in the development of a global psychosocial programme for children who experience complex trauma.

Methods: Several social media modalities are integral to the development and establishment of WACIT. These have different functions and are inter-linked with the core programme components of training, network-building and research. They include a project website (www.wacit.org), blog (www.panosvostanis.wordpress.com) and twitter (@pv11Panos).

Results: Social media were instrumental in sustaining networks, particularly with colleagues from low- and middle income countries, and those with lesser experience and access to traditional forums. For example, during the two-year life of the programme so far, the blog has attracted over 8,000 visits from 3,400 visitors from 70 countries. Social media played a major role in engaging a wider and non-specialist audience, developing partnerships, and attracting sponsors.

Conclusions: Social media have a crucial role in international collaboration, with huge potential for knowledge exchange, training, supervision and consultation. They also present a number of challenges such as the resource implications, and rigidity of many organizations in adapting to rapidly evolving technology and communication approaches.



### 3137 - Mental Health Treatment Court in California: New Opportunities for Intervention

Dr. Michael Kelly Stanford University

Objective: This session will provide an overview of an innovative model of care for court involved individuals with severe and persistent mental illness involving a clinic located within Mental Health Treatment Court, the Court's burgeoning partnership with a forensic psychiatry fellowship program and the need to examine the clinic's potential effects on patients and their communities.

Methods/Results: Data will be presented on a psychiatric clinic housed within a Mental Health Treatment Court in San Jose, California that currently provides outpatient care to 1900 to 2300 patients annually. The clinic was started by a California Superior Court Judge in an effort to reach Court involved individuals who were reluctant to engage with available mental health treatment providers within the community. Although feedback from patients, their families, and the Court have been positive, not enough has been done to examine the overall impact of this clinic and to seek out areas of potential improvement. Methods of assessing the clinic's impact on patient's perceived quality of life, frequency of psychiatric hospitalization, days of incarceration, utilization of additional beneficial county resources, and overall mortality in the coming years will be discussed.

Conclusions: Severely and persistently mentally ill court involved individuals are some of the most marginalized members of our communities. Not enough research has been done on how to best target interventions to meet their needs in community settings. This talk will begin with a summary of what is currently being done on the front lines in San Jose, California to help this patient population with its many severe challenges. The session will conclude with a road map for better understanding the potential benefits, limitations, and areas of growth in caring for court involved severely and persistently ill individuals in a clinic housed within a mental health treatment court.



### 3139 - Using Smartphones to Reach Homeless Youth: Developing New Models of Care

Prof. Dr. Niranjan Karnik Rush University Medical Center

Objectives: To examine the impact of technology in supporting homeless youth through the transition to adulthood.

Methods: Data will be presented from an ongoing clinical trial (currently N=25) of homeless youth in Chicago. In this study youth were issued a smartphone with 6 months of voice and data coverage. They participated in brief cognitive therapy and coaching sessions via the phones. Psychiatric assessments were conducted at baseline and in follow-up. In addition, phone-specific data such as usage and location were passively collected.

Results: In this population, high rates of depression, anxiety and trauma were found. Youth showed a high degree of interest in interventions using their phones, and participated in therapy session with greater than 90% completion. Smartphones appear to be a viable platform for interventions in high-risk populations with a low rate of loss or theft.

Conclusions: Homeless youth face numerous challenges and have high rates of psychiatric and substance use disorders. The transition to adulthood is particularly risky for this population. Smartphones and other technologies appear to present opportunities for interventions due to their portability and ease of use.



S06-03: New technologies in Child and Adolescent Psychiatry

Prof. Dr. Olivier Bonnot Université de Nantes

New technologies are offering new opportunity to the society and to our field. By presenting experiments in assessment of hand mouvements in patients with West syndrome, behavioral disturbance in Autism Spectrum disorders or group dynamism in adolescent gambling we will try to enhance the interest of these tech novelty...



#### 3288 - Adolescent gambling in greater Athens area: a cross-sectional study

Professor Helen Lazaratou

Child and Adolescent unit, Community Mental Health Centre Byron Kesariani, 1st Department of Psychiatry, Medical School, National and Kapodistrian University of Athens, Greece

Objective: Pathological gambling in adolescents has recently emerged as a pressing public health concern. In this context and in light of the pervasive financial crisis in Greece, the present study aimed to explore adolescents' gambling involvement in Athens region, to estimate the prevalence of its pathological form and to identify its risk/protective factors.

Methods: A total of 2,141 students were recruited from a representative sample of 51 schools located in greater Athens area. The presence of pathological gambling was assessed through the use of the DSM-IV-MR-J questionnaire. Data were collected in the form of a self-reported questionnaire during one school hour.

Results: Results indicate that one-year prevalence of high severity problem gambling was found to be 5.6%. Regarding the risk factors for problem gambling; male gender, parental engagement with gambling activities, living without the parents, low grades at school, foreign nationality and the referent absence of availability of food in the household, increased the risk of suffering from the disorder.

Conclusion: Gambling behavior among adolescents constitutes a problem in Greece and highlights the need for designing and implementing appropriate preventive interventions, especially amid the ongoing financial crisis.



## 3293 - Use of a smartphone application to study autism spectrum disorders (ASD)

MD, PhD Olivier Bonnot

This is a prospective, longitudinal, exploratory, open study with a 6-month follow-up period to explore via a specific smartphone application the evolution of a child's behavior over 6 months and the (psychological and social) effects of these changes on the family.



3296 - Hand movements and trajectories in west syndrome babies.

Lisa Ouss Necker Hospital

Signal assessment with mathematical models for hand movement and trajectories in west Syndrome. Study was made in part of the PILE program (International program for child language)



3298 - Virtuality. Is it a way to exteriosize fantasy?

Bernard Golse Necker University Hopsital and Paris Decartes University

Thought and elaborations about virtuality, tech changes in child and adolescent society.



S06-04: SYNAPSY SYMPOSIUM: Early intervention in preschoolers with Autism Spectrum Disorder (ASD): the Swiss experience in 5 university centers

Stephan Eliez University of Geneva

The last decade has taught us that the most effective method for minimizing the impact of autism spectrum disorders symptoms was early intensive behavioral intervention. While many different approaches have been proposed, it seems that the first three years of life may represent a "window of opportunity", to get the most optimal long-term benefits. The intensity of intervention is also critical, with some programs offering up to 20h of individual therapy per week. In this symposium, we will share the experience of 5 university centers in Switzerland who started to implement early intervention programs for preschoolers with autism a few years ago. Each center choose the approach which tailored to their needs, trained their team and was able to enroll in average 20 preschoolers with ASD to date. These data are in turn presented regularly to the Swiss invalidity insurance in an effort to demonstrate that local programs can dramatically help improving the lives of affected children. After the individual presentations by 4 of these 5 centers, the last talk will present statistical results based on the more than 100 toddlers with ASD who participated in one of these early intervention programs.



## 3349 - Effectiveness of the FIAS approach for early Intensive Intervention for young children with ASD — the Basel experience

Herbrecht Evelyn University Department of Child and Adolescent Psychiatry, Basel

Objective: In autism spectrum disorder (ASD) impairments in fundamental social abilities and a lack of interest in social stimuli become apparent early in life. Early intensive interventions are considered crucial to attenuate risk factors for impaired social development and thus to ameliorate the deficits associated with ASD (Dawson et al., 2010). The current study evaluates the effectiveness of FIAS ('Frühintervention bei Autistischen Störungen', Herbrecht et al., 2015), using both short term- and follow-up data.

Method: A total of 41 young children with autism and their families have participated in the FIAS therapy evaluation from March 2011 to September 2016 (median age: 42 months at intervention start). FIAS intervention consists of an initial 18 days period of highly intensive therapy (6 hours per day) in the FIAS centre and two years of less intensive follow-up care at home, where parents as well as other involved institutions are coached to stabilize treatment effects.

The short-term effectiveness of the FIAS intervention was assessed before, during and after the initial intensive intervention, follow-up effects were assessed one and two years after. We used standardized outcome measures (ADOS, DD-C-GAS, VABS-II) as well as the Autism Behaviour Coding System (ABCS), a novel, video-based observational instrument for assessing core autism symptoms during therapist-child-interaction (Dima et al., 2016).

Results: Short-term results show mostly significant improvement in core autistic symptom domains and level of functioning (ABCS, DD-C-GAS). Follow-up-results one and two years after initial intensive intervention not only confirm the short-term effects but show an increase of intervention benefit.

Conclusion: FIAS seems to highly improve core autistic symptoms as well as the level of everyday functioning in young children with ASD and intervention benefit seems not only to be stabilized but to further increase during follow-up care. These results underlie the importance of early intensive intervention in the group of young children with autism.



## 3352 - Early intervention following the Early Start Denver Model — the Geneva experience

Hilary Wood de Wilde Centre d'Intervention Précoce en Autisme, Office Médico-Pédagogique et Fondation Pôle Autisme

Soon after receiving a diagnosis of autism for their child, parents are quickly confronted with the reality that there are no medical treatments available to tackle the myriad of developmental and behavioral challenges they will face. There is, however, one form of treatment that proves effective for all children with autism, and that is early intensive intervention. In recent years, randomized controlled studies of various approaches in early intervention have proved that regardless of theoretical approach, certain elements, such as parent involvement and emphasis on social communication, are key.

The Center for Early Intervention in Autism of Geneva opened its doors in 2010. Today, 27 children are treated across 3 centers, receiving intensive, individualized early intervention using the Early Start Denver Model (ESDM). This talk will give an overview of how the centers function, how the ESDM model is used with children ages 12 months to 4 years, as well as the challenges and future goals of the program.

As our ability to detect autism in very young babies and children improves, we are also facing an increasing number of questions that represent challenges for the years to come: Which therapy is effective for which presentation of autism symptoms? Why do some children respond better to treatment than others? How will we be able to make early intervention affordable for all in the years to come? How will we treat babies diagnosed at 6 months old?



3356 - Early intervention in young children with ASD — the Zürich experience

Dr. Ronnie Gundelfinger KJPDZH, University of Zürich

About 20 years ago parents of young children with severe autism started using behavioural methods with the help of specialists from the US or Norway. There was a big demand to start a local program in Switzerland. We cooperated with the UCLA clinic, founded by the ABA pioneer Ivar Lovaas and started our "Early Intensive Behavioural Intervention" program in 2004. Similar to the UCLA program we work with psychology students to reach the necessary intensity of 30 hours per week. The psychologists in charge of the program are Board Certified Behavior Analysts (BCBA). The methods used have changed dramatically over the years from the classic «discrete trial teaching» to a highly interactive, communicative and playful approach. Main areas are verbal and nonverbal communication, social reciprocity and playful interaction, indepence in activities of daily life and preparation of group activities in Kindergarten. Our program was developped as a home treatment, but in 2015 we started combining center based hours with therapy at the families home.

We have taken outcome data from the beginning, first results will be published in 2017.



## 3358 - Early diagnosis and intervention of autism spectrum disorders: experience in the southern part of Switzerland

Prof. Gian Paolo Ramelli

Pediatric Department of Southern Switzerland, Neuropediatric unit San Giovanni Hospital, Bellinzona, and OTAF Institute Sorengo

#### INTRODUCTION:

Before 2009, in Ticino, the southern part of Switzerland, all the children diagnosed with ASD attended special needs schools.

In 2009, thanks to the substantial sensitization of the paediatricians on the use of M-CHAT the age of diagnosis dropped from 4 to 2.5 years old.

This allowed an earlier and specific therapeutic intervention for this particular population.

#### **METHODS:**

#### Intervention:

- Intensive behavioural intervention (approximately 21 hours/week) using ABA principles: a) 1:1 instructions, b) group instructions.
- Inclusion in an ordinary school setting (kindergarten) with a support teacher (from 6 hours/week) trained ABA.
- Collaboration within a multi-disciplinary team: a) speech pathologist, occupational therapist, teachers, support teachers and ABA interventionists.

#### **RESULTS AND CONCLUSION:**

At the moment, thanks to this approach more than 60% of the children are included in regular classroom.



### 4499 - Presentation of approach and outcome of the early intervention in Basel - GSR

Dr. Bettina Tillmann GSR

Objectives: Autism spectrum disorder (ASD) comprises impaired social interaction and communication and behavioural restrictions. There is strong evidence that early intervention with intense training can improve outcomes of children with autism spectrum disorder. This is independent from the type of intervention (Spjut Jansson et al., 2016). We show the eclectic approach of the "Autismuszentrum der GSR" and present results collected so far.

Method: Between 2008 and 2017 46 Children diagnosed with autism-spectrum disorder were treated with an eclectic model including early intervention therapy, occupational therapy and speech therapy. All children received trainings in PECS (Picture Exchange Communication System) and TEACCH (Treatment and Education of Autistic and related Communication handicapped CHildren). The intensity was between 20 and 35 hours per week depending on the possibilities of individual families. Parental coaching is an important part of the therapy. Psychoeducational Profile as well as the Sensory Profile were used to assess developmental skills at the beginning and after one year of intensive intervention.

Results: As shown in the combined data of all Swiss centers, early specific intervention leads to improved outcomes in communication, interaction and behaviour. We add data showing improvements in core autistic symptoms after one year of eclectic therapy.

Conclusion: The eclectic approach of the "Autismuszentrum der GSR" is one out of five different settings in Switzerland providing early intensive intervention in early childhood autism. We conclude that the type of intervention is not critical for the outcome. Intensity and specificity to autism seem to be crucial for a successful intervention. As we are facing a wide spectrum of disorders we see a wide spectrum of outcomes independent of the approach. This suggests that individual approaches are promising to treat patients and families based on their primary symptomatology.



## 3361 - Pooling data from all the Swiss Early Intervention Programs — challenges, opportunities and results

Martina Franchini University of Geneva

#### **Objectives**

In this talk, we integrate all the results from the Swiss centers using early intensive intervention. Five centers from 4 different cantons (Basel, Geneva, Ticino, and Zürich) are making a combined effort to evaluate the efficiency of various behavioral and developmental interventions for young children with ASD, having the common features of being intensive and empirically supported.

#### Methods

Within this protocol, children were longitudinally followed at the baseline, after one year and after two years by mean of clinical, developmental and cognitive standardized assessments. To date, we collected these measures for 111 young children with ASD (185 visits in total) under the age of 5. Conclusive longitudinal results were only ensured for the first 1-year visit.

#### Results

After one year of treatment, results have shown a reduction in Symptom Severity (p=0.03), and an increase in standard score for communication (p<0.01). Imitation skills also exhibited a significant gain in the standard score (p=0.04). We also observed a trend toward significance increase in spatial IQ (p=0.09; p=0.08). Finally, a counter-intuitive result indicated increased anxiety scores in the mothers of the children included in our protocol.

#### Conclusion

After one year of treatment, our preliminary results showed some improvements in cognitive performance, communication, and imitation skills in some young children with ASD who benefited from one year of early and intensive intervention. These encouraging results confirm the need for early interventions and their positive impact on the developmental outcome of children with autism. Further efforts should be encouraged to explore this impact on a longer outcome and in a larger sample.



### S06-05: Re-examining Conduct Disorder through the lens of Complex Trauma

Dr. Jennifer Cabrera New York University School of Medicine

The field of psychiatry is increasingly recognizing the importance of trauma and traumatic experiences, as evidenced by an extensive revision of the Post-Traumatic Stress Disorder diagnosis, as well as creation of a Trauma- and Stressor-Related Disorders section in the DSM 5. Conduct Disorder has also undergone an important clinical modification for the 21st century, with the addition of the specifier "with limited prosocial emotions." However, full appreciation of the fundamental relationship of trauma to conduct-related disorders is still lacking. This symposium aims to demonstrate, through use of a case study and review of the literature, that understanding and treating trauma is a necessary and fundamental component of strategies to mitigate the potential negative long-term outcomes of Conduct Disorder.



2474 - The Case of DH

Dr. Jennifer Cabrera New York University School of Medicine

Objective: Although traumatic experiences are a relatively common phenomenon, it is rarely thoroughly considered in the context of conduct-disordered behavior. The author seeks to conceptualize the connection between Conduct Disorder, trauma, adversity, and attachment through a review of case material.

Methods: Direct patient diagnostic interview and clinical chart review.

Results: DH's presenting signs and symptoms, as well as his past history, suggest that traumatic experiences can have a substantial impact on psychopathology. Conduct-disordered behaviors can be manifestations of unrecognized trauma.

Conclusions: The manifestations of Conduct Disorder, including delinquent and anti-social behavior, has significant overlap with disrupted attachments and early trauma.



#### 2373 - Linking Attachment, Conduct Disorder and Complex Trauma

Doctor, Clinical Assistant Professor Jessica Linick New York University School of Medicine

Objective: Describe the impact of trauma and disrupted attachment on behaviors associated with Conduct Disorder. Similarities between behaviors associated with trauma-related symptoms and with Conduct Disorder will be presented, as well as potential areas for intervention.

Methods: Review of the literature.

Results: In conditions where relying on a caregiver may not be safe, such as in situations of abuse, neglect, or other trauma, children learn to develop other ways of dealing with their emotions. In infancy, these are often termed insecure attachment styles (in contrast to secure attachment), and have been linked to psychiatric disorders in adulthood. In situations of complex, prolonged, or developmental trauma, insecure attachment can later manifest as what is know in the adolescent literature as "survival coping" (Ford, 2009), which refers to the ways in which adolescents learn to regulate themselves based on the trauma they have experienced.

Conclusions: The behaviors that often manifest as survival coping (aggression, hypervigilance, oppositionality, delinquency) are generally termed "conduct problems," and the child may be given a diagnosis of Conduct Disorder. However, these behaviors can be best understood as manifestation of complex trauma whose underpinnings can be seen as disruptions in attachment.



## 2374 - Complex Trauma, Conduct Disorder and the Neuropsychiatric Overlap

Dr. Lara Cox New York University School of Medicine

Objective: Report the prevalence of trauma and adverse childhood experiences among youth with Conduct Disorder. Review the diagnostic criteria for Conduct Disorder and Post-Traumatic Stress Disorder, along with the proposed diagnosis of Developmental Trauma Disorder. Understand the findings of neurocognitive and neuroimaging research in Conduct Disorder and trauma, including the neurobiological similarities between the two bodies of work.

Methods: Review of the literature.

Results: There is a common perception that youth with Conduct Disorder (CD) lack empathy or guilt and use aggression and violence proactively. In reality this describes only a small minority of youth with CD who meet criteria for "with limited prosocial emotions." The majority of youth with CD display hypersensitivity to perceived threat, increased emotional reactivity, and reactive aggression. This also describes many children and adolescents who meet criteria for Post-Traumatic Stress Disorder (PTSD). There is even greater phenomenological overlap between these two populations when considering the proposed diagnosis of Developmental Trauma Disorder, which is the result of prolonged exposure to interpersonal violence and disrupted attachment. When the diagnostic criteria for CD and PTSD are examined together, it becomes apparent that a child or adolescent could meet criteria for CD due to trauma-related behaviors. This provides some explanation for the high rates of traumatic experiences but relatively low rates of PTSD reported in youth diagnosed with CD and in settings such as the juvenile justice system. The similarities extend to common changes in executive function, emotion processing and functional alterations in neurocircuitry.

Conclusions: Given the overlap between the epidemiology, phenomenology, and neurobiology of trauma and CD, there is reason to believe that these two seemingly disparate diagnostic categories are different ways of understanding the same pattern of behavior.



## 2375 - Implications of the Conduct-Trauma Connection: Clinical Outcomes and Societal Impact

Doctor, Clinical Assistant Professor Akeem Marsh New York University School of Medicine

Objectives: Discuss the current evidence-based treatments for Conduct Disorder and Post-Traumatic Stress Disorder. Illustrate the consequences of failing to address trauma in youth diagnosed with Conduct Disorder and the broader ramifications of this failure on an individual and societal level.

Methods: Review of the literature

Results: Evidence-based treatment options for Conduct Disorder include Multi-Systemic Therapy and Functional Family Therapy. For trauma-related issues, Trauma-Focused Cognitive Behavioral Therapy and group/milieu-based models, such as Trauma Systems Therapy, are utilized. Lack of recognition of commonality between Conduct Disorder and complex trauma has numerous implications for clinical practice, individual prognosis and life trajectory, and societal impact.

Conclusion: Treatment that integrates work on trauma-related symptoms and conduct-disordered behaviors may break the cycle of recidivism and allow youth to fully participate in their lives and communities. Addressing the conduct-trauma connection on the clinical, research, and policy level is the only way to close the gap and meet the needs of these complex and marginalized youth.



#### S06-07: When our practices have a transformative impact

#### S06-07: When our practices have a transformative impact

Pédopsychiatre FMH Jean-Claude Métraux Cabinet du Dr Métraux

Learning from migrants, marginalized, minority communities, because of their particular culture or gender expression, invites us to rethink our relationship to otherness as well as our relationship to knowledge.

Jean-Claude Métraux will explore the concepts of « gift of speeches » and « precious speeches », which are the words that reveals the speaker and that contain the value he is giving to the relationship with his interlocutor. This allows to think and translate in our clinical practices principles like reciprocity and horizontality, with, as a major profit, the co-creation of a mutual recognition relationship between therapists and families. Effective response which influences so many social determinants. Some exemples from our clinical experience will show it. Healing the other one, who could be rather far or close from where we stand, has also to do with the recognition of our fundamental similarities. Among other things, the fact that we are all migrants, transiting, if not in space at least into time. The speakers will tell their own transformative stories, real tales of their practice's and thought's migration, made of precious speeches and learnings from youngsters, parents, migrants or home-born met in a therapeutic context.



### S06-07: When our practices have a transformative impact

2805 - Meia Lua: corporal mediation workshops

Dr. Jean-Claude Metraux Cabinet du Dr Métraux

Cécile Dos Santos will talk about a clinical group experience. Corporal mediation workshops using Capoeira (a brazilian martial and rhythmic art) are meant for teenagers facing multiple transitions and risks of marginalization. They are run by a multidisciplinary team and are based on systemic, intercultural and "psychomotor" approaches. The corporal mediation using Capoeira helps teenagers to set their body and mind in motion. It relies on one's body's capacity to be in resonance with someone else's body, to reflect in the perceived behaviours and to grasp the intention that drive theses behaviours. Teenagers learn to acknowledge their emotions and to express them with creativity. During the ritual of a final round dance, participants are invited to integrate elements of their own cultural field which will be then used/integrated by the group. That way, they make their roots explicit and question their identity, a key element to self-esteem. Like this, the group moves into a more reassuring space and take time to help express individual and collective feelings and to elaborate a way of thinking. One is encouraged to do verbalized exchanges along with other means of expression (sculptural systemic exercises, drawings etc.) This group experience characterized by an ease of access to medical care and a corporal approach allowed to meet and support teenagers with a high risk of integration loss. Regular individual assessment in which each participant recalls his goals showed that teenagers actively played a strong role in both their personal and relational evolution as well their evolution among the group. They relied on their cultural and social transitional experience to sustain both their and their pair's transformation. When an orientation towards a therapeutic and specialized space seemed indicated on the basis of the first assessment in a group context, it has been made easier thanks to the ties made between the teenagers and the multidisciplinary management team.



### S06-07: When our practices have a transformative impact

2807 - Unaccompanied minor: a case report

Pédopsychiatre FMH Anja Weltin Cabinet du Dr Métraux

The speaker will expose a clinical case which will show the specific situation of unaccompanied minor in Switzerland. Anja Weltin will illustrate the vulnerabilities and risks as well as the possibilities and chances inherent in this specific situation of young refugees migrating in a place without their families.



### **S06-07:** When our practices have a transformative impact

#### 3053 - From a gender to another

Psychologue, psychothérapeute FSP Karima Brakna Cabinet du Dr. Métraux

Guided by the concept of migration as a metaphor, in this presentation we'll talk about the psychotherapeutic support of young people in a gender transition process. Karima Brakna will introduce a preview of six years of clinical work with the real-life experience of trans\* kid's parents, young people's one and the one of health care professionals led to open themselves to questions that challenges their own practices.



**S06-08: Long-term Outcome of Childhood Disorders** 

Prof. Dr. Klaus Schmeck UPK

Transition from childhood to adulthood is a vulnerable period where the incidence of long-lasting psychiatric disorders has its life-time peak. In many cases the first symptoms of these disorders can be traced backed to childhood and adolescence. To be able to intervene at the earliest time in development the results from longitudinal studies are crucial where early signs of later mental problems can be detected.

In the first three contributions of this symposium we will present data from two longitudinal studies: first the US-American MTA-Study that has followed up treatment effects in ADHD children over a period of 16 years after diagnosis, and second the Swiss MAZ-study that has followed up children, adolescents and young adults from residential care institutions who have shown delinquent behaviour before the first assessment point and who are characterized by a high load of traumatic experiences in their history. In the fourth contribution these results will be discussed from the perspective of adult psychiatry.



#### 3156 - Psychotic symptoms in ADHD: an analysis of the MTA database

Prof. Dr. Benedetto Vitiello National Institute of Mental Health

Background: Psychotic disorders frequently emerge in adolescence or early adult years. The transition to adulthood of youths with ADHD may be a period of increased risk for psychosis, when considering the link between ADHD and higher substance use. We assessed the prevalence of psychotic symptoms among youths with a childhood diagnosis of ADHD combined type. Method: A total of 509 participants in the Multimodal Treatment Study of Children with ADHD (MTA) and 276 peers in a local normative comparison group (LNCG) were systematically assessed from about age 14 through age 24, using a psychosis screener, and those who screened positive were referred to study clinicians to confirm or exclude psychosis. Alcohol and substance data use were also collected. Results: The prevalence of positive psychosis screens did not significantly differ in the MTA subjects (5%; n=26) as compared to the LNCG (4%; n=11). Likewise, there was no statistically significant difference between MTA and LNCG in the rate of clinician-confirmed psychotic symptoms. However, in both groups, subjects who screened and were confirmed positive reported more frequent cannabis use. Conclusions: While there was no evidence that ADHD increased the risk for psychotic symptoms, this study confirms that frequency of cannabis use is associated with experiencing psychotic symptoms.



#### 3158 - Delinquency in the long term outcome of institutionalized children

Prof. Dr. Joerg Fegert

Contribution reports about the long-term follow-up of a group of Swiss children in institutional care (N=592) and a comparison group of "normal" schoolchildren (N=892). We compare criminal offenses in early adulthood with the results of a study on institutionalized children in Switzerland and a school comparison group. It is a five to ten years follow-up. The data on criminal offenses is based on the Swiss national registry of the federal office on statistics. The study is supported by a positive vote of the ethics committee in Basel and a state contract with the office of statistics and the MAZ group.

#### Results:

Care leavers of institutional care in Switzerland show a highly significant risk for delinquency compared to a group of schoolchildren. Especially children with interrupted child welfare interventions and children that didn't finish their out of home placement regularly differ significantly from children that accomplish their way in institutional care (only traffic related delinquency didn't differ between the groups). In addition, victims and / or witnesses of domestic violence and abuse are at higher risk for violent offending.

#### Conclusion:

Care leavers accumulate risks related to their experiences of interpersonal violence in childhood. Successful institutional education might be able to prevent a negative outcome. Adolescents that leave the care system unplanned have the highest risk of criminality in early adulthood.



## 3160 - Long-term Outcome of Externalizing Disorders and Psychopathic Personality Traits in Youths from Residential Care Institutions

Prof Dr Klaus Schmeck University of Basel

#### Objective:

Effective interventions in early starting severe mental health problems like externalizing disorders require a sufficient understanding of etiological processes that cause and maintain the disorder. In our longitudinal study on delinquent adolescents from residential care institutions we focus on the impact of psychopathic personality traits on the course of externalizing disorders.

#### Methods:

We studied two Swiss epidemiological samples: a school sample of 840 adolescents (43% girls, mean age 17.2 years) from 18 schools with different academic levels, and a sample of 592 adolescents (66.6% boys, mean age 16.2 y.) living in residential care facilities sponsored by the Swiss Ministry of Justice. The second sample is characterized by high levels of delinquency, psychopathology and traumatization. In both samples the course of delinquency is assessed via the criminal records of the Swiss Federal Statistical Office. We present the effect of psychopathic personality traits on the rate of convictions 7 to 8 years later using logistic regression models.

#### Results:

In contrast to our hypotheses the distribution of psychopathic personality traits in the school sample was not markedly different from the residential care sample with high load of delinquency (effect sizes from .00 to .52). At follow-up there was no difference in psychopathic personality traits between repeat offenders, first offenders or desisters in the school sample and this variable was no significant predictor of delinquency, while in the residential care sample repeat offenders showed the highest level of psychopathic personality traits with a moderate prediction of later delinquency.

#### Conclusions:

In the absence of externalizing disorders psychopathic personality traits don't seem to have a major impact on later delinquency.



### 2727 - Diagnostic Stability and Functional Outcomes of Children with ADHD at Age 10 Years: A Three Year Controlled Longitudinal Study

Dr. Daryl Efron Murdoch Childrens Research Institute

Objectives: Most longitudinal ADHD studies have examined clinical cohorts, often with a broad age range at baseline precluding the measurement of developmentally sensitive outcomes. This community-based study examined the diagnostic stability and three year outcomes of a sample of children with ADHD and non-ADHD controls recruited at age 7, and investigated differences in outcomes by ADHD persistence, gender and medication status.

Methods: Children with ADHD (n=179) and matched non-ADHD controls (n=212) aged 7 were originally recruited through 43 Melbourne schools, using a two-stage screening (parent and teacher Conners 3 ADHD index) and case confirmation (Diagnostic Interview Schedule for Children, Version IV; [DISC-IV]) procedure. Two-thirds in each group were boys. Children were re-assessed 3 years later (mean age: 10.5; SD=.5) to examine diagnostic persistence (DISC-IV), mental health disorders (DISC-IV), academic performance (Wide Range Achievement Test 4) and social functioning (parent or teacher reported Peer Problems on Strengths and Difficulties Questionnaire). Linear and logistic regression were used for all analyses.

Results: Sixty-seven percent of children with ADHD continued to meet diagnostic criteria for ADHD three years later. Children with ADHD at age 7 had more externalising (49% vs 10%, p<0.001), anxiety (22% vs 5%, p<0.01) and mood (6% vs 0%, p=0.03) disorders at follow-up, as well as poorer word reading (mean difference (MD) 10.6; 95% CI 7.4, 13.8; p<0.001), math performance (MD 12.2; 95% CI 9.1, 15.3; p<0.001) and social functioning (71 vs 27%; p<.001) compared to non-ADHD controls. Compared to children with remitted ADHD, children with persistent ADHD had increased odds of externalising disorders (OR 3.5; 95% CI 1.4, 8.6; p=0.007), however had better word reading (MD 5.5; 95% CI 0.2, 10.8; p=.04). Outcomes were similar for boys and girls with ADHD, except that boys were more likely to have persistent ADHD than girls (74 vs 50%; p=.01). Medication status did not affect outcomes even when taking into account initial ADHD severity.

Conclusions: One-third of children identified with ADHD at age 7 do not meet ADHD diagnostic criteria three years later. However, children with ADHD identified at age 7 have substantially poorer mental health, academic and social outcomes than controls at age 10, even if their ADHD has remitted, and regardless of whether they were treated with medication.



3161 - Discussant

Prof Dr Harald Freyberger University of Greifswald

In the fourth presentation of the symposium the results of the two longitudinal studies are discussed from the perspective of adult psychiatry.



S06-09: "Another way of telling..." Maternal narratives and attachment representations in the context of the Neonatal Intensive Care Unit

Associate Professor Campbell Paul Royal Children's Hospital

The significance of parental attachment representations for infant attachment and mental health has been supported by a growing evidence base. Elucidating parental representations in the context of stressful experiences can help to understand the development of attachment, the relationship to outcomes and shape approaches to support vulnerable infants and their parents. This symposium will review the research and clinical use of interviews which explore parental attachment representations, reflective capacity and the nature of the parent-infant relationship. Two studies which have utilised this type of interview to explore mothers' representations in the context of the NICU, when their infants were very ill will be presented. In addition interventions provided in the NICU and a perinatal addiction service which support the infant parent relationship and enhance parental reflective functioning will be discussed. The important insights gained through these interviews into the developing parent-infant relationship, the impact of infant illness and NICU environment and emerging reflections will be discussed.



3266 - Exploring parental attachment representations of the baby: research and clinical findings

Dr. Aoife Twohig Our Lady's Children's Hospital

Parental attachment representations have a growing evidence base linking these constructs with later infant attachment and a range of clinical outcomes. Narrative interviews with parents about their infants also permits a very unique insight into the internal world of the parents and the ways in which this may influence the developing relationship with their infant. This presentation will describe two interviews which have been validated and utilised in research and clinical settings. The working Model of the Child Interview (Zeanah et al., 1996) and the Parent Development Interview (Slade et al., 1985; 2003). The relationship of narrative quality, coherence and features of these interviews which have been shown to be of particular relevance will be discussed.



3279 - 'Beginning to think about the baby as a person': A qualitative perspective on mothers attachment representations of their preterm infants

Dr. Aoife Twohig Our Lady's Children's Hospital, Crumlin

This study presented is an exploratory study forming part of a prospective study evaluating an attachment-focused intervention in the NICU for parents and their preterm infants. The study received ethical approval of the research ethics committee of a tertiary referral level III NICU in a University affiliated maternity hospital in Dublin, Ireland. The participants were 33 mothers of preterm infants born at less than 32 weeks gestational age. Mothers of preterm infants were interviewed at median 4 weeks post-delivery of their preterm infants, prior to participating in the intervention. The WMCI was conducted by the first author (A.T.) coded by A.S.. All first names used and identifying details have been changed to protect the anonymity of the mothers and infants. Results: The majority of mothers wanted to take part in the interview even when the infant was very unwell, many voiced that engaging in the interview brought aspects of their infant's personality and the importance of their relationship to the fore, whereas until this their infant was viewed only in terms of their medical illness. Major themes during the interviews will be presented. These include fear and uncertainty regarding the future for the infant. A predominant theme of the interviews was the feeling of helplessness and powerlessness to help their baby. Mothers also described a sense of distance from their infant in the first weeks, complicated by the environment of the NICU. Mothers also described being unable to process the overwhelming feelings associated with their and their baby's experience leading to numbness and almost surreal quality to their experiences. Later intrusive memories, dreams and images may manifest as symptoms of the delayed processing of the emotional impact of their experience. Intermingled with these most difficult and painful experiences are those of joy, pride, excitement and longing to fulfil their role as parents. Excerpts illuminating the themes of the interviews outlined above will be presented. The relationship of attachment representations to a range of outcomes is also described.



3302 - Using a parental interview within the NICU to informunderstanding and therapeutic approaches with the baby and his parents

Prof. Dr. Paul Campbell Royal Children's Hospital

Conducting assessments of parental mental health and the parent-infant relationship in the NICU when babies are sick or where there are concerns regarding risk of abuse and neglect can be complex. A crucial aspect of this assessment is the nature of the parents' reflective functioning, that is the capacity of the parent to think about the baby as a developing individual with his/her own feelings and their capacity to hold the infant's needs in mind. This must also include an understanding of the parent/s' own attachment history, their current functioning and their sense of their growing relationship with their baby. This assessment will also include any risks to the infant posed by care of the parent and the possibility for the parent to change. A further means of gaining insight into the parent-infant relationship are direct observations of the parent-infant couple together. This presentation will provide an overview of the use of narrative interviews in the context of the NICU with sick infants and infants at risk of maltreatment and also the use of direct observation which have been employed within the NICU at The Royal Children's Hospital in Melbourne. The role of the mental health consultation in this special setting will be discussed using vignettes and video recordings.



#### 3313 - Children's attachment narratives following Neonatal Intensive Care

Dr. Bernice Prinsloo Our Lady's Children's Hospital, Crumlin

The above presentation has been removed from the symposium due to the unavailability of the speaker.

Instead Dr. Fionnuala Stuart, a child and adolescent psychiatrist working in London will present clinical material from her work within the FDAC service with parents with significant mental health difficulties and addiction in the perinatal period. This presentation will be reflecting on what is learnt from clinical use of antenatal Video Interaction Guidance in terms of supporting the reflective function of parents who have histories of neglect and abuse in their own childhoods and have experienced their children being removed from their care.



### **S06-10: Reflective Practice in Complex Situations**

Martin Debbané
Developmental psychology Research unit, Faculty of Psychology, University of Geneva

In the contemporary delivery of mental health care, clinicians face challenges that often go beyond providing evidence-based treatment. Abuse and trauma constitute enduring challenges, with increasing rates in current community practice. Alongside abuse and trauma, adolescents at suicidal risk often resist treatment and require interventions on social networks that are themselves often disjointed in nature. Finally, some hard-to-reach youths present situations that add up all risk factors for severe psychopathology: early abuse and neglect, risk for self harm and harming others, and severe socioeconomic adversity. This symposium presents different complex clinical situations for which reflective functioning constitutes the key process that requires clinical attention for delivery of situation-specific mental health care. The contextual determinants of each clinical context calls for specific application modalities, yet the aim of interventions critically involve reflective functioning/mentalization as an operating principle in therapy, supervision, and network collaboration. This symposium will sequentially address these complex situations through four oral presentations.



3224 - Understanding the interplay between maternal posttraumatic stress, maternal behavior and reflective functioning: on the road to effective parent-child intervention

Francesca Suardi

Previous studies have found significant associations between parental reflective functioning (PRF), maternal mental representations (Schechter et al., 2005), and child attachment security (Slade et al., 2005). They have failed to find a link between PRF and maternal psychopathology such as posttraumatic stress disorder (PTSD; Schechter et al., 2005). The latter study did not include a control group. We thus wanted to replicate the latter study within a sample that included a non-PTSD control group and to test the hypothesis that PRF and maternal PTSD together contribute to child developmental psychopathology. Within this sample (N=59), we indeed found no significant group-differences in the level of PRF (p>.4), but did find significant group differences in terms of socio-economic status (SES; p<.005) and maternal controlling behavior observed on the CARE-Index (p<.005). We then examined the relationship of these maternal variables to child psychopathology on the Infant-Toddler Social-Emotional Assessment (ITSEA) and found that maternal controlling behavior which is significantly associated with maternal PTSD but not PRF, together with PRF in a linear regression model both significantly contributed to child externalizing (18% of the variance) and dysregulating (25% of the variance), but not internalizing symptoms. Controlling for SES did not alter either model. These results suggest that it is important in clinical intervention both to address maternal behavior that is associated with violence-related PTSD and to support and model PRF. This presentation will thus illustrate the Clinician-Assisted Videofeedback Exposure-Approach Therapy (CAVEAT) model developed by our team that is based on an evidence-based technique that has been shown to increase maternal sensitivity as marked by a reduction in negative and age-inappropriate mental representations (Schechter et al., 2006; Schechter et al., 2015). A clinical vignette with video will illustrate the conceptual model of this manualized intervention.



## 3367 - Child maltreatment: A mentalizing framework and treatment model: The Lighthouse MBT-Parenting Programme

Gerry Byrne
Oxford Health NHS Foundation Trust

Instances of severe child abuse and neglect can only occur in the midst of catastrophic, parental failures in mentalizing and/or in families in which non-mentalizing modes of thinking and behaving predominate, often as a result of the parents themselves having childhood histories of maltreatment and neglect. It seems reasonable to construe severe child abuse and neglect as arising from either a deficit in mentalizing (contributing to a pattern of consistent emotional and or physical neglect), or failures of mentalizing in situations of high arousal (non - accidental injury, physical chastisement) in which a parent momentarily mis-sees the child or through the mechanism of projective identification mistakes the child for a something or someone else.

The Lighthouse© MBT-Parenting programme was developed specifically to promote mentalizing in parents where the children have been identified as 'at risk' of maltreatment by the parent. The model aims to reduce the risk of maltreatment, disorganized attachments and transgenerational cycles of attachment difficulties/ psychopathology. It is underpinned by current theoretical and empirical work in attachment and developmental psychopathology. The programme aims to improve parental functioning and strengthen the parent-child relationship through a combination of psycho-education, and individual and group-based MBT treatment.

In this presentation, a mentalizing framework for understanding child maltreatment will be explored and core elements of the treatment model will be illustrated by clinical material (including video).



3227 - aiRe d'ados, a health and social organisation working for teenagers in suicidal risk and their network.

Yasmine Cebe Malatavie Unité de Crise Prévention, SPEA, HUG-Children Action

Adolescence in a sensitive transition period which can at times lead teens toward developmental breakdown. Suicide represents the second cause of mortality in Switzerland, and is often associated to rupture social bonds.

Suicidal youth refusing treatment recommendations bring professionals and families to states of critical anxiety. In such cases, youths frequently transitions from one service to another, successively alerting new mental health professionals, whilst spreading feelings of helplessness.

We aim to study how aiRe d'ados, an experimental and innovative organisation promoting circular collaborations around suicidal youths aged 13 to 25, approaches these situations. In particular, we wisj to illustrate how this inter-institutional health and social organisation helps to support professionals working with developmental breakdown and suicidal teenagers reluctant to accept help.

aiRe d'ados is dedicated to clinical and training objectives. The clinic organises regular meetings for the different actors, builds an individual and collective narration of path and current experience which promotes mentalizing, and supports a developmental project. aiRe d'ados proposes health and social coordination to connect the different partners (youths or a nominated representative, his/her family and professionals surrounding them), and offers a long-term follow-up to help them recover initiative and creativity. The coordination teams offer the opportunity for various professionals to work together promoting understanding between differing health support cultures. AiRe d'ados also coordinates trainings and events for health and social professionals, to share their different practices, discuss their conflicts and develop a common language.

Since 2014, aiRe d'ados has faced a number of complex situations. Every follow-up studied included a coordination team and various actors. Globally parents were more present than we expected and young people expressed interest while keeping mostly a certain distance with the entire process. In terms of trainings and events, aiRe d'ados successfully coordinated transmission and discussion between professionals of different fields and prevention by peers.

aiRe d'ados effectively is an area of mutualisation bringing together innovative health and social practices. As the project progresses, it appears capable of identifying and helping its actors find solutions to the problems they face in supporting vulnerable youth.



#### 3231 - The Adolescent Mentalization-based Integrative Treatment (AMBIT)

Dickon Bevington The Anna Freud Centre

Mentalization is an integrative conceptual framework; its coherence with Social-Ecological, Neurodevelopmental, and particularly Attachment models means that it lends itself well to applications extending beyond adult borderline personality disorder. In particular we emphasise adaptations for children, families, and complex youth with multiple comorbidities and ambivalent, or frankly aberrant, relationships towards help and helpers. We describe two adaptations developed at The Anna Freud Centre that share the therapist's mentalizing stance and more with MBT.

AMBIT applies mentalizing theory to street level outreach and early intervention work in four different directions. Mentalizing techniques are not just deployed in face to face client work but also to support the development of well-connected teams of workers, and to reduce the level of "dis-integration" between the multiple agencies that operate in complex professional networks around complex, high risk, help-avoidant cases. Described by some as a form of "pre-therapy", AMBIT seeks at least as much to create the system conditions most likely to support therapeutic change as it does to shape the detailed (and often quite situation-specific) close-up work of facilitating that change.

AMBIT has developed into an approach that over one hundred teams across the world have been trained in, and these teams now participate in a growing "Community of practice" (Wenger and Lave) that shares emerging best practice and learning via its award-winning wiki-based treatment manuals (www.tiddlymanuals.com). This open source technology is one way that AMBIT supports its fourth main focus, which is in creating 'Learning organisations' (Senge) that are evidence-oriented where robust evidence-based practice is lacking, and which collaborate to develop and share emerging practice-based evidence; we propose that this is a good practical example of what John Weisz has described as "deployment-focused" treatment development programs.



### **S06-11: Policy Issues in Child and Adolescent Psychiatry**

Prof. Dr. Füsun Çuhadaroğlu Hacettepe University School of Medicine

In this symposium policy issues and developments in child and adolescent psychiatry in three European countries will be discussed



### 3453 - Crisis of Child Psychiatry in Countries that were formerly part of Soviet Union

Prof. Dr. Igor Martsenkovsky

Objectives. To discuss the reasons for the low efficiency of the system of children's mental health care (CAMHC) and the concept of mental health reform in Ukraine.

Methods. The results of the situational analysis and the official statistics of the Ministry of Health(MH), Ministry of Social Policy(MSP) and the Ministry of Education(ME) over the past 10 years were analyzed.

Results. CAMHC is provided mainly in the pediatric wards of psychiatric hospitals with its further centralization occurred during the last ten years. Community-based mental health services are provided by patient's organizations or by commercial medical centers. Many medical services work on the basis of the institutions of the MSP (psychoneurological boarding internats) and ME (special schools). Children with special educational problems, mental disability in such institutions receive neurometabolic, cardiovascular drugs, and most of them have no analogs in Western Europe and the United States. In cases of behavioral problems antipsychotics are commonly used. A particular problem is the lack of access to mental health care for children in conflict with the law. According to the screening, more than 60% of adolescents that have not committed serious offense were diagnosed with mental disorders (ADHD, anxiety, depressive disorders, borderline disorder). In Ukraine, were approved clinical guidelines for children and adults with PDD and ADHD but principles of care to such children remains archaic.

Conclusion. Reform of the system of CAMH is part of a new philosophy of government social policy in the field of child and adolescent health in Ukraine. Four areas of reforms were identified: 1) to move the emphasis from biological treatment to the psychosocial care: promotion of healthy lifestyle, development of specific prevention and inclusion programs; 2) to improve CAMHS: to redistribute resources between emergency, primary, specialized and highly specialized psychiatric care; to develop services in the community and in primary care; to organize psychiatric departments within multidisciplinary acute children's hospitals; 3) to bring in line care with the highest level of scientific achievements; to ensure children's access to medicines and methods of psychological treatment whose effectiveness is based on the principles of evidence-based medicine; 4) to detect child abuse cases in providing psychiatric, general medical care, social and educational services.



### 3458 - Overview of the Developments in Child and Adolescent Psychiatry in Lithuania

Prof. Dr. Sigita Lesinskiene

Introduction. The field of child and adolescent psychiatry is actively growing and strengthening over the time, keeping traditions, constantly changing them according the time and building some new ones.

Objective of the presentation was to analyse patways of the development of chils and adolescent psychiatry as a separate speciality.

Method. Historical overview from the beginning of the speciality and later stages through various socioeconomical periods will be presented comprising notes regarding strengths, weeknesses and chalenges for the further development. Pathways how to achieve the best balance between public health interventions and individual medical care will also be discussed. System of service delivery, funding and training of specialists in Lithuania will be presented. Results. Child and adolescent psychiatry, one of the most socially and multidisciplinary-oriented medical specialties, has been stressing intersectorial collaboration for many years. Various stages have been overcome during that process, starting from raising of awareness, decreasing stigma, discovering possibilities and showing benefits and advantages from the joint projects. During the years awerenes of the idea about the urgent need for intersectorial cooperation solving complex problems related with mental health of children and adolescent were acquired and started to function in the society. Good practices, successful examples, innovative programs together with need to build comprehensive, continuous services could be mentioned as main means to achieve a better quality of care.

Conclusions. In the countries where financial resorses are quite limited it is very important to cooperate with politicians and decide priorities for funding when talking about the improvement of child and youth mental health. Cooperation with sectors of education and social affair are constantly growing and very important. Intersectorial collaboration is essential for building healthy society. Intersectorial action remains a complex and challenging area of policy development and practice.



# 3465 - Challenges for CAP in Turkey after recent political changes in the country

Prof. Dr. Füsun Çuhadaroğlu

Objective: to put forward how the political changes effect the conditions of mental health and services in a country

Method: Reviewing the political changes taking place in the country, and CAP practices and results of the national researches.

Discussion: Pros and cons of the political changes regarding the CAP practices and suggestions for improvement will be discussed



S06-12: Synapsy's Symposium: Neuroimaging markers of risk for severe mental disorders

Dr. Camille Piguet University of Geneva

As we improve our understanding of major psychiatric disorders such as bipolar disorder or psychosis, the need to better assess the risk to developp such a disease has become more prominent. In particular, studies with "at risk" population target the biomarkers of disease vulnerability. Here we aim to present data on neuroimaging biomarkers of high risk status for psychosis and bipolar disorder that could indicate functional or structural vulnerability traits of those diseases



## 3133 - Brain structural and functional connectivity correlates of the onset of psychosis

Prof. Stefan Borgwardt Department of Psychiatry, University of Basel

Early clinical detection in psychotic disorders has become a major objective of mental health services, while research on the early phases of the disorder may provide important clues to the pathophysiology underlying psychotic symptoms. Thus, the identification of a clinical syndrome that reflects a predisposition to schizophrenia is fundamental from a clinical and a research perspective. The onset of schizophrenia is usually preceded by a prodromal phase characterized by functional decline and subtle negative symptoms. Structural and functional neuroimaging techniques including brain connectivity analyses have rapidly developed into a powerful tool in psychiatry. In this presentation it will be aimed to show that connectivity studies of the prodromal phases of psychosis have the potentials to identify core markers of vulnerability to psychosis and to clarify the onset of psychosis.



## 3134 - Greater Surface Area, Gyrification and Volume of the Right Inferior Frontal Gyrus as Markers of Genetic Risk for Bipolar Disorders

Prof. Tomas Hajek Department of Psychiatry, Dalhousie University

Objectives: In our previous genetic high-risk study, we found replicated evidence for a larger right inferior frontal gyrus (rIFG) gray matter volume in both unaffected as well as affected relatives of bipolar probands relative to controls. Structural changes in the rIFG are one of the few replicated biomarkers of familial predisposition to BD. Here we investigated whether the larger rIFG volumes in subjects at risk for BD would be related to increased gyrification, cortical thickness or surface area.

Methods: We acquired structural MRI data from 38 unaffected, 28 affected relatives of BD probands and 41 age matched controls. Using Fresurfer, we measured volume, cortical thickness, surface area and local gyrification index (LGI) of the rIFG. Local GI quantifies the amount of cortex buried within the sulcal folds versus the outer visible cortex.

Results: Multivariate analysis of variance revealed a significant between-group difference in volume (F(6,196)=3.32, p=0.004, Wilk's lambda=0.82), surface area (F(6,196)=2.15, p<0.05, Wilk's lambda=0.88), LGI (F(6,194)=2.55, p=0.02, Wilk's lambda=0.86), of the right rIFG, where in all instances we observed the largest values in unaffected participants at genetic risk for BD. Most of the between group differences were localized to pars opercularis and pars triangularis of the rIFG. The rIFG volume was significantly associated with rIFG surface area (r=0.37, p<0.001) and LGI (r=0.37, p=0.001).

Conclusions: We replicated the previous finding of larger rIFG volume in subjects at risk for bipolar disorders in a larger sample using a different method of data analysis. The volumetric changes were localized to pars triangularis and orbitalis and were driven by increased surface area and gyrification. The direction of the morphometric changes in participants at genetic risk for BD was opposite to the most frequently reported direction of changes in participants with fully developed BD. This may indicate dynamic nature of structural changes in BD, which may result from interplay between illness burden and compensatory processes.



### 3141 - Investigating functional neural network vulnerability in high-risk offspring of bipolar disorder parents

PhD Kallia Apazoglou Department of neuroscience, University of Geneva

Objectives: Social stress reactivity is a core feature of many psychiatric disorders, including bipolar disorder. The offspring of bipolar patients have an increased risk to develop mood and anxiety disorders, particularly during adolescence or early adulthood, and are expected to show increased social stress reactivity as a vulnerability trait.

Methods: The dynamics of fronto-limbic circuit recovery after a social stressor can be investigated using an fMRI task where participants receive positive or negative feedback with a social component after stress (MIST task). Here this task was adapted with small resting periods interleaved with stress periods and presented to offspring of bipolar parents (15-25 y.o.) and matched controls.

Results: Overall, rest periods after stress revealed a network of medial structures (subgenual and posterior cingulate) that are part of the default mode network. Evaluation of social feedback required activation in the anterior cingulate cortex as expected.

Bipolar disorder offspring showed hyperactivity of right limbic structures during social feedback and subsequent recovery from stress, similarly to bipolar disorder patients. Sustained basal ganglia activity during the resting period after a positive feedback seemed blunted in both bipolar disorder patients and offspring, suggesting an anhedonic response to positive social cues in offspring as well.

Conclusion: If confirmed, these preliminary results reveal an abnormal and long-lasting response pattern during social stress in a high risk population, which may participate to the susceptibility of these individuals towards mood disorders.



### 3450 - Neuroimaging Biomarkers Of Stress Reactivity And Working Memory Disruption In Children And Adolescents At Risk

Prof. Aysenil Belger Department of Psychiatry University of North Carolina at Chapel HIll

Objectives: Cognitive disorganization, and deficits in working memory are well documented in children and adolescents ta risk for psychosis. We propose that aberrant activation in the neural controllers of stress regulation constitute a biomarker for risk for psychosis and disruption of neural networks implicate din executive function and working memory.

Methods: Fifty children and adolescents (ages 9-16, 20 males) completed MRI scans during resting state, working memory tasks with varying load, and an imaging stress task (MIST). Anatomical and white matter connectivity data was also acquired. We examined fmri activation during stress, as well neural network connectivity and working memory activation in frontal-striate regions before and after stress manipulation. Heart rate variability, behavioral performance, and subjective mood and affect rating scores, as well as cortisol measures were obtained to index stress responses in individual children. Clinical ratings and neurocognitive assessments were conducted prior to scanning.

Results: FMRI activation and deactivation during the MIST task in children replicated the patterns of activation and deactivation reported by Pruessner et al, indicating early maturation of the stress regulation networks. Fronto-striate activation during the n-back working memory task indicated greater prefrontal engagement in prefrontal (MFG) regions in at higher working memory load (2-back compared to 1-back WM) before stress. Following the MIST task, prefrontal activation was increased for both 1-back and 2-back WM conditions, indicating an arousal, rather than an interference effect in control children. The results were more mixed in the high-risk children.

Conclusions: Results from this study indicate that the neural circuits implicated in stress response and regulation are similar in children and adults. Activation of these circuits during stress induces greater prefrontal and striate activation during working memory task performance, suggesting an arousal effect of stress on cognition in children. Greater variability in the modulation of this activation in high-risk children may indicate underlying disruptions of neural circuits in response to stress, and highlight individual differences in the vulnerability of cognition to stress in children at risk. We will discuss the importance of understanding individual differences in stress vulnerability in high-risk children.



#### S06-13: Update on pediatric catatonia

Dirk Dhossche University of Mississippi Medical Center

Recent studies support that catatonia may be more common in children and adolescents than previously thought. Catatonia is an acute, severe, potentially life-threatening disorder when accompanied by autonomic dysfunction, that also occurs in children and adolescents. Pediatric catatonia may develop in patients with concurrent medical conditions including lupus and anti-N-methyl-d-aspartic acid (NMDA) receptor encephalitis, psychotic and affective disorders, toxic states, autism spectrum disorders, developmental disorders, tic disorders, posttraumatic conditions, and miscellaneous conditions. Case-reports support benzodiazepines and electroconvulsive therapy (ECT), including maintenance ECT, as safe and effective treatments for pediatric catatonia. Catatonia is a treatable condition that warrants prompt diagnosis and treatment. The DSM-5 changes in the classification of catatonia aim to reduce morbidity and mortality in patients with catatonia and to increase further research.



#### 3383 - Overview of catatonia in children and adolescents

Walter Jaimes-Albornoz

Catatonia is characterized by behavioral, volitional, motor and autonomic symptoms but often under-recognized. One of the most important factors for this under-identification, especially in different populations and clinical environments in pediatric patients, has been its long-standing classification as a subtype of schizophrenia. There are limited data on the epidemiology of catatonia in this population. The studies conducted in acute units describe a prevalence of catatonia between 0.6 and 5.5%, prevalence lower than the one reported in adults, which is 6-38%. In patients with neurodevelopmental disorders, especially autistic spectrum disorders, the prevalence ranges from 17 to 38%, and in those cases secondary to general medical conditions, it ranges from 7 to 24%. In many cases the etiology is multiple. Catatonia is manifested mainly in male adolescent patients diagnosed with schizophrenia. The frequency of catatonic symptoms in children, adolescents and adults is similar. The clinical manifestations of catatonia in this population are similar to those of other age groups. There is an increased risk of death, up to 60 times, with a mortality of 10% in a four-year follow-up study. There are two clinical forms: a stuporous variety, the most common one, and an agitated/excited one. Catatonia can also present itself as a very severe form called "malignant" when it is associated with hyperthermia, tachycardia, tachypnoea, hypertension and diaphoresis.

According to DSM 5 we will diagnose catatonia if three or more symptoms from a list of 12 are present. The diagnosis of catatonia will immediately and simultaneously force us to search for its possible etiologies and complications. The treatment of catatonia can be rapidly and dramatically effective, with complete resolution reaching up to 65-80% of the acute cases. Benzodiazepines (BZDs) are the drugs of choice for the acute treatment. Electroconvulsive therapy (ECT) is the second-line treatment and will be used when BZDs are not effective or produce intolerable adverse effects. An adequate knowledge of the clinical characteristics of catatonia in children and adolescents will lead to its timely treatment, which will decrease the high morbidity and mortality rates still described in this population.



### 3375 - Catatonia and autoimmune conditions in children and adolescents: A diagnosis and therapeutic challenge

Vladimir Ferrafia

Catatonia is a severe syndrome, gathering psychic and motor symptoms, which can result in death. In pediatric population, up to 20% of the cases are secondary to a medical condition including autoimmune ones. These conditions are often under recognized and mistreated in the pediatric patients leading to major delay of specific treatments and poor prognosis. In this setting, physicians must conduct large and specific investigations, as a wide variety of genetic, metabolic and autoimmune conditions are likely to triggering catatonia. This point has crucial therapeutic implications. The diagnosis and treatment of the organic condition is crucial regarding the severity and the possible lethality of the underlying states in organic catatonia. In addition to the specific treatment of catatonia (benzodiazepines and/or electroconvulsive therapy, ECT), patient must be treated with immunosuppressive treatments (corticoids, plasma exchange...). Pediatric catatonia of underlying autoimmune condition successfully treated has been reported in systemic lupus erythematosus (SLE), Hashimoto encephalopathy and anti-Nmethyl D-aspartate (NMDA)-receptor encephalitis. Other antibodies such as anti-VGKCcomplex, GlyR, D1R, D2R, AMPAR, GABA(B)R, are known for their pathologic role in the development of encephalitis. The presentation of autoimmune encephalitis in children can be different from adults with a predominance of psychiatric symptoms (including psychosis, mania or OCD), cognitive regression and catatonia. Moreover in some cases, no autoimmune evidence is found in CSF, however the atypical neuropsychiatric presentation still suggests "probable" autoimmune encephalitis. Therefore, some clinical tool might help to make the diagnosis and to lead to specific treatment.

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### 3515 - Metabolic and genetic etiologies of catatonia in children and adolescents

#### **Xavier Benarous**

Introduction: The identification of a medical risk factor for catatonia, in nearly 20% of inpatient youths, has substantial clinical implications in particular due to the necessity of urgent specific treatments. Late-onset presentation of genetic and/or metabolic disease represents a diagnostic and therapeutic challenge for clinicians, as psychiatric symptoms can be isolated for years before more specific organic signs become obvious. In this presentation, the main metabolic and/or genetic conditions associated with pediatric catatonia are reviewed. Data are derived from the analysis of a cohort of catatonic children and adolescent inpatients followed at the Pitié-Salepêtrière Hospital in Paris, France, since 2013 (N=89) and are discussed in light of the literature.

Results: In the clinical cohort, we found that 20 (22.5%) patients presented a potential genetic and/or metabolic conditions associated with catatonia. Genetic conditions associated with catatonia were 5 single-gene conditions (Huntington's disease, fatal familial insomnia, PRODH mutations, Kleefstra syndrome, and Sanfilippo syndrome), 4 metabolic conditions of unknown origin (intracerebral serotonin deficit [N=2], creatine deficit, storage disease) and 6 cytogenetic abnormality or significant CNVs (Down syndrome, 22q13.3 deletion included SHANK 3 gene, duplication of 16p13, 8p23.3 deletion of the end of DLGAP2 gene, 2q22.1 deletion, and 13q33.1q34 deletion associated with 13q34q34 duplication). One patient presented a chorea from unknown origin. Genetic conditions with a questionable causal link with catatonia were 4 CNV (maternally transmitted 2q36 deletion, deletion in the parkin 2 gene deleting exon 6 associated with anti NMDA receptor encephalitis, duplication Xp22.33), and for one patient, 5 CNVs were found: 16p13.3 and Xq25 deletion, 14q11.2, 21q21.1 and 6q14 duplication.

Conclusion: Catatonia in youth is associated with a high rate of genetic and/or metabolic disorders. This needs to be acknowledged, and research should be promoted. In addition, searching for catatonia in neurodevelopmental syndromes (e.g., Kleefstra or Phelan-McDermit syndromes) may offer therapeutic opportunities.

Consoli A, Raffin M, Laurent C, Bodeau N, Campion D, Amoura Z, Sedel F, An-Gourfinkel I, Bonnot O, Cohen D (2012) Medical and developmental risk factors of catatonia in children and adolescents: a prospective case-control study. Schizophrenia research 137 (1-3):151-158. doi:10.1016/j.schres.2012.02.012



### 3393 - Novel treatments of catatonia including in patients with autism spectrum disorders

Roberto Canitano

Objectives: The mainstay of treatment of catatonia is lorazepam and ECT though additional otions are emerging. An overview of new treatments of catatonia, particularly in autism spectrum disorders (ASD), will be dealt with. Methods: PubMed search using MeSH terms related to pediatric catatonia novel treatments with subsequent searches on pertinent subtopics using PubMed and Google Scholar. Results: Mood Stabilizers: the GABA-hypothesis of catatonia is currently well recognized and the GABA-related mechanism of action of several anti mood stabilizers have led to consider these drugs as first for the treatment of catatonia in ASD. Valproate was used in several case reports, and found to have prophylactic effects and a significant effectiveness on symptom release but there is still a lack of evidence in ASD catatonia. As well levetiracetam was advocated as a treatment for catatonia in bipolar disorder but no data are available in ASD. Lithium has been reported to have a beneficial effect on acute catatonic symptoms in two patients with SHANK3 (22q13.3 deletion) and ASD, even if it is mostly described to be of use in the prevention of recurrent catatonia. Glutamate Antagonists: Because of its N-methyl-d-aspartic acid (NMDA) antagonist properties, amantadine (100–500 mg three times a day), and its derivative memantine (5–20 mg/day), have been tried in catatonia. Around 35 cases of amantadine and memantine use in the treatment of catatonia have been described and the majority were psychotic disorders that substantially improved, mostly after 1-7 days. As to ASD only a couple of case reports are available to date reporting improvement of symptoms. Transcranial Direct Current Stimulation (tDCS):

tDCS applied over both prefrontal cortices have the potential to reduce negative symptoms and catatonia. Positive effects of tDCS have been reported on learning, working memory, attention and source-monitoring. The effects of tDCS on brain activity have been investigated mainly in patients with schizophrenia. Its use in ASD is at the very beginning and requires further research.

Conclusions: Catatonia in ASD is underdiagnosed and calls for rapid evaluation and management as it is a dangerous but treatable neuropsychiatric condition. Currently novel treatments are in need of additional evidence as to safety and effectiveness.



#### 3397 - Mechanisms in pediatric catatonia

Dirk Dhossche

There has been renewed interest in the demarcation of pediatric catatonia from other pediatric conditions including autism. An update on symptoms, prevalence, evaluation, treatment, risk factors, experimental models, and mechanisms of pediatric catatonia is presented. Recent prevalence rates of pediatric catatonia vary widely across studies, suggesting that catatonia may not be rare in younger patients. Symptoms and diagnostic criteria for pediatric catatonia are the same as in adults. Studies and clinical experience support benzodiazepines and electroconvulsive therapy, including maintenance electroconvulsive therapy, as treatment options. Sometimes catatonia develops after severe psychological trauma. Historical and contemporary clinical and experimental catatonia models are available for future research, focusing on motor circuitry dysfunction, abnormal neurotransmitters, epileptic discharges, genetics, neuroendocrine and immune abnormalities, fear reactions akin to the animal defense strategy of tonic immobility, and developmental risk factors. A new vagal theory of catatonia is presented and unifies various aspects of catatonia, stimulating further studies on autonomic dysfunction, the use of anticholinergic agents, and vagal nerve stimulation. In conclusion, there have been advances in demarcating pediatric catatonia in a wide variety of patients as a treatable condition that requires prompt identification. Further research on mechanisms of catatonia in various populations is needed.



### S06-14: SKJP-Symposium

S06-14: SKJP-Symposium

Philipp Ramming SKJP Schweizerische Vereinikgung für Kinder- und Jugendpsychologie

#### Think different

Cooperation rather than separation can give the industrialization of the health care system an efficient and human side. In the canton of Berne, this cooperation existed in the form of the historically grown model of the House Community of Educational Counseling (EB) and Child and Youth Psychiatric Polyclinic (KJPP). Since the triage was managed internally by the two services, neither the school, nor the parents, nor the outside specialists, including the children and general practitioners, had to make a decision about the place of the application, a great benefits for the population in general, as well as for the assigning children and house doctors. How this cooperation worked will be documented by different examples.

#### Act

Trauma disorders caused by long-term physical and mental ill-treatment, neglect but also of non treated accidents, disease operations, etc. are often not immediately identifiable as such, but lead to learning, development and behavioral disorders which are often attributed to fashionable disease and symptom models. A consideration of behavioral problems under a psychotraumatological view, a careful diagnostic evaluation and traumaspecific information can enable the school to build a different relationship with difficult children.



### S06-14: SKJP-Symposium

## 3535 - School Psychology and Child and Youth Psychiatry: Possibilities of a Relationship

Prof. Dr. Hans Gamper

Cooperation is possible: On the basis of various concrete case studies, we will show the initial situation, the problem situation, the cooperation-plan, the outcome and the resulting measures. Template is the 'Bern Model', ie. the (former) home community of school psychologie and Child and Youth Psychiatry.

We hope to demonstrate the prerequisites for child-centered collaboration and the efficiency of such cooperation in health care of children and adolescents.



## S06-14: SKJP-Symposium

# 3536 - Trauma: A different view for educational challenging behavior in school

Dr. Julie Palix Universitäre Psychiatrische Kliniken

Children suffering from a traumatic disorder show not only classical PTSD symptoms, but they can also react to traumatizing events through changes of personality, severe difficulties to adapt, depression, anxiety disorders, somatic symptom disorders, personality disorders or substance abuse.

On the basis of specific case studies, we show how information about trauma-related disorders leads to a new view of behavioral problems in teachers and educators.



## S06-14: SKJP-Symposium

# 3425 - Effectiveness of the "Together at School" intervention program on children's socio-emotional skills: 18 months follow up

Dr. Päivi Santalahti National Institute for Health and Welfare, Helsinki, Finland

Background: Together at School (TGS) is an universal intervention program designed to support socio-emotional skills and to promote mental health among primary-school children. TGS is based on a whole school approach and implemented in school classes by teachers, who received 10 months training for TGS. The teachers in the control group received two three hour theoretical lectures of social skills, emotions and how to deal with challenging situations. The aim of this study is to examine effectiveness of TGS to promote social skills and reduce psychiatric symptoms among primary school children.

Material and Methods: The design was cluster randomized controlled trial. Participants were 3 704 children attending 1st to 3rd grade classes in 79 Finnish primary schools (40 intervention and 39 control schools). The outcome measure for psychiatric symptoms was the Strengths and Difficulties Questionnaire (SDQ) and for social skills the Multisource Assessment of Social Competence Scale (MASCS). The intervention dosage (i.e. how much a teacher actually used TGS methods in his/her class) was measured by the frequencies a teacher used the six central components of TGS. The data was collected at baseline and 18 months later. Multilevel modeling was used to analyze the intervention effects.

Results: Social skills improved and psychiatric symptoms decreased both in the TGS and control group during the follow up. There was no significant differences between the TGS and control group in the development of social skills or in decrease of psychiatric symptoms, indicating no effectiveness of the TGS program. When the dosage (i.e. how much a teacher actually used TGS methods at class) was considered in the analyses, it was found that among the children whose teachers used TGS at the intended level social skills improved more than in the control group. Conclusions: Universal whole school approach to support children's socio-emotional skills at the Finnish primary school setting did not result in better mental health in the intervention group. However, social skills improved among those children whose teachers implemented the program with high fidelity. In the future analysis implementation issues will be covered in more detail.



### S06-16: Suicidal behavior, suicide and suicide prevention

Dr. Stephan Kupferschmid PDAG

Suicide in adolescents is the second most common cause of death in this age group and therefore a major public health problem. Suicidality in youth is common and demands special interventions. These topics are burden and strain for the affected children and adolescents but also for teacher, parents and care-giver. In this Symposium experts and bereaved parents will discuss aspects regarding suicide and suicide prevention. This will give a particular opportunity for exchange on this important topic.



## 3024 - Suicide in Children and Adolescents: Findings from the Swiss National Cohort

Stephan Kupferschmid

### **Objectives**

Suicide in adolescents is the second most common cause of death in this age group and therefore a major public health problem.

### Methods

We examined socio-demographic factors associated with suicide in Swiss adolescents and analyzed time trends in youth suicide in the Swiss National Cohort. The cohort is a longitudinal study of the whole Swiss resident population, based on linkage of census and mortality records. We identified suicides in adolescents aged 10-18 years from 1991 to 2013. A total of 2.396 million adolescents were included and 592 suicides were recorded, corresponding to a rate per 100,000 of 3.7 (95% CI 3.4-4.0).

#### Results

Rates increased with age from 0.0 per 100,000 at age 10 years to 14.8 per 100,000 (95% CI 12.6-17.5) at 18 years in boys, and from 0.0 to 5.4 per 100,000 (4.1-7.2) in girls. Being a boy, living in a single parent household, being an only child or middleborn child, and living in rural regions was associated with a higher rate of suicide. Hanging was the most common method in boys, railway suicides were most frequent in girls. There was no clear evidence for an increase or decrease over calendar time.

### Conclusion

We conclude that familial and socioeconomic factors as type of household, birth order and urbanity are associated with youth suicide in Switzerland. These factors should be considered when designing prevention programs for youth suicide.



# 3028 - Evaluating the effects of a school-based screening for current suicidality in 11 European countries

Michael Kaess

### Introduction

Early detection and intervention of mental health problems are considered an important public mental health goal. One way to support adolescents' help-seeking are screening procedures. This study aimed to implement a school-based screening for current suicidality in 11 European countries, and to investigate the effects of clinical interviewing and subsequent referral after screening.

### Methods

A two-stage screening was implemented within the project "Saving and Empowering Young Lives in Europe" (SEYLE). The whole study sample (n=12,395) was screened for acute suicidality (Emergency Cases; EC). Screened students were assessed by healthcare professionals using a semi-structured interview, and referred to subsequent public mental health care if needed. At one-year follow-up, students were assessed for professional help-seeking, suicidal behaviour, psychopathology, and quality of life.

#### Results

515 (4.15%) students were screened as EC, but only 193 (37.5%) attended the clinical interview. Attendance at clinical interview with subsequent referral predicted professional help-seeking (OR= 3.12; 95%CI: 1.70- 5.75; p<.001) but also reduction of suicidal behaviour and psychopathology as well as improvement of general well-being.

#### Conclusion

These results indicate that a screening with subsequent clinical interviewing and referral may support help-seeking among adolescents, and subsequently improve these individuals' mental health. However, interview participation rates were low, and effects on both help-seeking and mental health outcomes were moderate. Proactive interventions may improve help-seeking among suicidal youth and thereby reduce prospective risks. However, there is a need to develop better strategies for improvement of suicidal adolescents' help-seeking, which seems to be generally low.



### 3029 - Suicide of your own child — when a fear becomes reality

Petra Zürcher

Introduction: Mirjam's story

As an affected mother, I'm going to tell the story of our daughter Mirjam and the difficult path she followed until her death shortly before her 19th birthday. This includes our experiences of her first mental problems, that we – the unaware parents – wrongly considered to be heavy pubertal behaviour. I'll tell about her self-harm, bulimia, the first suicide attempt with pills in 2003, her stay in a psychiatric hospital and her suicide on tracks in 2004.

### Topic 1: Living with a suicidal daughter

When living with a mentally ill, suicidal teenager, the parents also reach the limit of their mental capacity. This can lead to them also suffering from exhaustion depression. They struggle with various questions: How should they confront a child who desperately needs help, but doesn't want to or can't accept it? How can they deal with the mental problems of their daughter that are a crucial test of their marriage? How can they deal with their powerlessness, as they can't help their own daughter, but have to watch her illness getting worse?

### Topic 2: After the suicide

At this point, I'd like to talk about the subject "The long way back into your own life". I will briefly tell about the time shortly after Mirjam's suicide. I will also present the work of the association "Regenbogen Schweiz" (Rainbow Switzerland) and describe the help it offers to affected, traumatised parents.

### Topic 3: Experiences with specialist departments and psychiatry

As parents of a suicidal teenager, we were totally overwhelmed and under equipped. Our daughter wouldn't accept help from us or a friend, let alone a psychologist or psychiatrist (because of prejudices). Who should we contact concerning the professional care of Mirjam? We felt excluded, especially after she reached adulthood. At this point of my presentation, I also want to refer to the issue of suicide prevention. Even today, affected persons are rarely involved in suicide reports from departments.

#### Conclusion: Wishes

- The involvement of parents in the treatment of their mentally ill or suicidal child should improve.
- Social networks relating youth suicide should be established.
- Specialised contact points for affected parents should be created.
- The involvement of affected parents in suicide prevention should improve.



### 3030 - Suicide Prevention

Thomas Reisch

### **Objectives**

About 1000 persons per year commit suicide in Switzerland. However, over the years the numbers of suicide in Switzerland have decreased. Several prevention efforts have been made in the past years. The presentation summarizes the given scientific evidence of the efforts that may have led to the observed decrease of suicides.

#### Methods

Securing bridges, change of the availability of military guns, and improvements in the therapy may be part of the success in suicide prevention and have been focuses in several scientific papers. These will be resumed within the presentation. Suicide data of youth and adolescent suicide will be an additional focus.

#### Results

All published intervention studies showed a significant decrease in the number of suicides. Conclusion

The included studies may be part of the reduction in number of suicide cases, but it seems likely that other prevention measures that have not been studied also may have significantly influenced the number of suicides.



S06-06: The characteristics of those involved in bullying and the differential effects on health and health service use

Professor Dieter Wolke Warwick University

This symposium will address the individual and social characteristics associated with children and adolescents involved in bullying. We will discuss the long-term consequences that involvement in bullying can have for physical and psychological health, and in particular the effect it has for health service use.



# 3306 - Bullies, victims and bully-victims: Differences in social and emotional attributes and social standing

PhD Alexa Guy Warwick University

Objectives: To investigate the emotional and social attributes associated with bullying involvement in adolescence; specifically how bullies, victims and bully-victims differ in these attributes, and in their socio-metric status. Understanding differences in the characteristics of these distinct groups may help to improve interventions.

Methods: A two-phased study was conducted in secondary schools. In stage 1, 2782 pupils (11-16 years) were screened for bullying involvement and based on self- and peer-reports, pupils were assigned to four groups; bullies, victims, bully-victims and neutrals (uninvolved). A selection of these participated in stage 2, where social (i.e., attribution biases, emotion recognition) and emotional (i.e., empathy, callousness and affective instability) attributes were assessed. Moreover, pupils nominated classmates on three aspects of socio-metric status; i.e., perceived popularity, social preference and social impact.

Results: Bullies and bully-victims were higher in callous-unemotional traits than neutrals (p<.001), whereas victims and bully-victims had higher levels of affective instability than both neutrals and bullies (p<.001). Victims gave more self-blame attributions than neutrals (p<.01) and bullies (p=.031), and bully-victims attributed more self-blame and hostile intent to ambiguous situations than the neutral group (p=.005 and p=.022). For socio-metric status, bullies were higher in perceived popularity than all groups (p<.001) and bully-victims were the most disliked (p<.01). All involved groups had greater social impact than neutrals (p<.001). Regression analyses revealed that bullying role had a greater influence than individual and situational factors on all measures of socio-metric status.

Conclusions: Victimization is associated with an individual's unstable emotional traits and biased attributions of social situations, whereas those who bully are highly callous and uncaring. Compared to uninvolved adolescents, bullies are neither socially superior nor deficient, however their bullying appears a key factor in gaining popularity amongst peers. Bully-victims share attributes with both bullies and victims, but have a distinct emotional and social profile and are disliked the most by their peers. Interventions may benefit from considering the emotional and social traits that increase the risk of adolescents being involved in bullying, as well as addressing the role of the peer group in reinforcing this involvement.



# 3312 - Childhood bullying victimisation and overweight in young adulthood: A cohort study

Jessie Baldwin Kings College London

Objective: To test whether bullied children have an elevated risk of being overweight in young adulthood and whether this association is: (1) consistent with a dose-response relationship, namely, its strength increases with the chronicity of victimisation; (2) consistent across different measures of overweight; (3) specific to bullying and not explained by co-occurring maltreatment; (4) independent of key potential confounders; and (5) consistent with the temporal sequence of bullying preceding overweight.

Method: A representative UK birth cohort of 2,232 children was followed to age 18 years as part of the Environmental Risk Longitudinal Twin Study. Childhood bullying victimisation was reported by mothers and children during primary school and early secondary school. At the age-18 follow-up, we assessed a categorical measure of overweight, body mass index, and waist-hip ratio. Indicators of overweight were also collected at ages 10 and 12. Co-twin body mass and birth weight were used to index genetic and fetal liability to overweight, respectively. Results: Bullied children were more likely to be overweight than non-bullied children at age 18, and this association was (1) strongest in chronically bullied children (odds ratio = 1.69; 95% confidence interval [CI] = 1.21–2.35); (2) consistent across measures of overweight (body mass index: b = 1.12; 95% CI = 0.37–1.87; waist-hip ratio: b = 1.76; 95% CI = 0.84–2.69); (3) specific to bullying and not explained by co-occurring maltreatment; (4) independent of child socioeconomic status, food insecurity, mental health, and cognition, and pubertal development; and (5) not present at the time of bullying victimisation, and independent of childhood weight and genetic and fetal liability.

Conclusion: Childhood bullying victimisation predicts overweight in young adulthood. Future studies should investigate the mechanisms through which bullied children become vulnerable to weight gain, to inform interventions to prevent overweight in this population.



# 3323 - Bullies grown up: Mastery of normative developmental tasks and indicators of psychological health in early adulthood

Tina Kretschmer University of Groningen

Objectives: Compared to the literature on psychological correlates of victimization, less is known about bullying perpetrators and how they fare later on, both with respect to psychological health as well as adjustment more broadly. Some argue that bullying perpetration is conducive to popularity and social dominance, negative outcomes should thus be rare. Empirical research does not always confirm this. To better understand what happens when bullies grow up, we examined bullying perpetrators' success in mastering normative developmental tasks in early adulthood (educational attainment, integration into the labor market, financial competence, welfare independence, law-abiding behavior, substance use). We further explored how developmental patterns of bullying relate to psychological health in early adulthood.

Methods: We used TRAILS data (n=2230) from ages 11 to 22, assessed bi-annually, to conduct two sets of analyses: First, we examined associations between bullying perpetration in early adolescence and early adult developmental tasks using regression models and controlling for participant IQ, parental SES and marital status. Second, we employed latent growth models to depict the development of bullying-perpetration across adolescence and examined links with various facets of psychological health in adulthood.

Results: Perpetrators of bullying in early adolescence were more likely to use substances and less likely to lead a law-abiding life. Latent growth models indicated an overall decrease in bullying perpetration between pre- and late adolescence and, similarly to regression models, also indicated that those who remained perpetrators across adolescence showed higher levels of aggression and delinquency later on. Notably, this pattern was observed in girls but not in boys. Conclusion: Not only the victims but also the perpetrators of bullying show problems in early adulthood, ranging from substance use and police involvement to aggression and delinquency. This pattern of result does not seem to support the notion that bullying perpetration results in social dominance, popularity, and is adaptive. Instead, we find that for girls in particular, bullying in adolescence might be a marker of a broader set of externalizing problems.



### 3328 - The consequences of bullying for psychological health

Professor Kirsti Kumpulainen University of Eastern Finland/ Kuopio University Hospital

Objective and methods: Bullying is aggressive behavior that is targeted repeatedly towards an individual. It is intentional and aims to harm another either physically or psychologically. The consequences of bullying presented here are based on the findings of the Finnish Nationwide 1981 Birth Cohort Study, which is an epidemiological longitudinal follow-up study covering the age span from childhood to 29 years of age.

Results: In our study, concurrent psychiatric disorders were more likely to be present in children involved in bullying than in other children at the age of 8 years. Involvement of bullying in early school years was associated with the probability of referral to psychiatric consultation and, for both males and females, was associated with an increased likelihood of having psychiatric disorders in later years. For males, being a bully or a bully-victim at the age of 8 years also increased the probability of criminal offending after 15 years.

Conclusion: Bullying has serious consequences for both concurrent and future psychological well-being. The results highlight the importance of early interventions for bullying and violence among children. Professionals in basic health services and daycare, as well as school staff, have the unique possibilities to act in this respect.