OCD and related disorders in young people: Innovation and consolidation

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I have no relevant financial or nonfinancial relationships to disclose
Child and Adolescent Psychiatry Research Centre

- Official opening: Sept 2013
OCD and related disorders at KI/SLL

Research group
- Clinical research
- Genetic epidemiology
- Neuroscience

Specialist clinic
- Regional and national referrals
- Multiple packages of care
- Treatment development/testing

Full integration of clinic and research
Overview of this lecture

- OCD-RDs chapter in DSM-5/ICD-11
- Evidence-based treatments
- Unmet needs and challenges
- Improving outcomes through innovation and consolidation
1999-2002
Research Agenda
For DSM-V

2003-2007
APA/WHO/NIH
Research Conferences

2007-2012
DSM-5 Workgroups

2013
DSM-5

2017?
ICD-11
New ‘OCD and Related Disorders’ Chapter in DSM-5

- Chronic Tic Disorders remain in Childhood Disorders
- Hypochondriasis remains in Somatic Disorders
ICD-11 (due 2017)

ICD-11 Beta Draft (Foundation)

Search

- Obsessive-compulsive and related disorders
  - Tourette syndrome
  - Idiopathic chronic motor or phonic tics
  - Obsessive-compulsive disorder
  - Body dysmorphic disorder
  - Olfactory reference disorder
  - Hypochondriasis
  - Hoarding disorder
  - Body-focused repetitive behaviour disorders
    - Secondary obsessive-compulsive or repetitive habit

Retrieved June 2015
What refinements are needed to the diagnostic criteria?

How strong is the evidence for specific OCD subtypes and symptom dimensions?

Should OCD leave the Anxiety Disorders grouping?

Should an Obsessive-Compulsive Spectrum Grouping of Disorders Be Included in DSM-5?

If so, what disorders should be included?
Refinements to the OCD criteria in DSM-5

- Word ‘impulse’ changed to ‘urge’
- Obsessions and compulsions are ‘time consuming’ (from 1h to e.g. 1 hour)

- Expand insight specifier to 3 categories:
  - Good or fair insight
  - Poor insight
  - Absent insight (delusional beliefs)

- Add tic-related specifier
OCD subtypes

- Tic-related OCD
  - Highly familial, specific characteristics (sensory phenomena), course and differential response to SRIs (but not CBT!)
  - Most experts agree it’s a valid subtype

- Early-onset OCD
  - Some special features but evidence is less compelling. One problem is the definition of ‘early onset’

- PANDAS/PANS
  - Some supporting evidence but remain controversial
  - 53% of OCD experts do not agree (Mataix-Cols et al 2007)

**Recommendation**: add tic-related OCD as specifier in DSM-5

*Leckman et al (2010) Depression and Anxiety*
OCD is clinically heterogeneous

- Contamination/ Washing
- Obsessions/ Checking
- Hoarding/ Saving
- Symmetry/ Order/ "Just Right"
OCD dimensions

- OCD is clearly clinically and etiologically heterogeneous
- There may be clinical value in identifying main OCD dimensions to guide treatment
- Wide support from experts
- However, not needed to establish diagnosis
- Additional burden for clinicians
- **Recommendation**: to list them in the text

*Leckman et al (2010) Depression and Anxiety*
Should OCD leave the Anxiety Disorders grouping?

Experts: No consensus!!

Mataix-Cols, Pertusa & Leckman (2007), AJP
Initial recommendation (some time in 2010)

- OCD to be retained in the category of anxiety disorders, but that the name of this category be changed to reflect the uniqueness of OCD

- Some options are:
  - “Anxiety and Obsessive-Compulsive Disorders”, or
  - “Anxiety, Posttraumatic and Obsessive-Compulsive Disorders”

- Compromise option that would acknowledge similarities and differences

- Would bring DSM and ICD closer together

- Eventually OCD was separated from anxiety disorders

Stein et al (2010) Depression and Anxiety
An OC-spectrum grouping of disorders should be included in DSM-5
This should be narrow and only include a few disorders

from Hollander

Body Dysmorphic Disorder
DSM-5 Diagnostic Criteria for Body Dysmorphic Disorder (© APA 2013)

A. **Preoccupation with one or more perceived defects or flaws in physical appearance** that are not observable or appear slight to others.

B. At some point during the course of the disorder, **the individual has performed repetitive behaviors** (e.g., mirror checking, excessive grooming, skin picking, reassurance seeking) or **mental acts** (e.g., comparing his or her appearance with that of others) in response to the appearance concerns.

C. The preoccupation causes clinically **significant distress or impairment** in social, occupational, or other important areas of functioning.

D. The appearance preoccupation is **not better explained by concerns with body fat or weight** in an individual whose symptoms meet diagnostic criteria for an eating disorder.

*Specify if:*

**With muscle dysmorphia:** The individual is preoccupied with the idea that his or her body build is too small or insufficiently muscular. The specifier is used even if the individual is preoccupied with other body areas, which is often the case.

*Specify if:*

Indicate degree of **insight regarding BDD beliefs** (e.g., ”I look ugly” or ”I look deformed”).

With good of fair insight | With poor insight | With absent insight/delusional beliefs.
Areas of perceived defect

- Head/face
- General body
- Body odor
- Skin
- Genitalia
- Arms/legs
Focus of Concern

Skin: 65%
Hair: 50%
Nose: 38%
## Phenomenology: ‘Obsessions’

<table>
<thead>
<tr>
<th>Like OCD</th>
<th>Unlike OCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Intrusive, persistent, repetitive, unwanted thoughts</td>
<td>• BDD patients have poorer insight. ~2% of OCD patients are currently delusional vs 27%-39% of BDD patients.</td>
</tr>
<tr>
<td>• Usually recognized as excessive (in terms of time spent)</td>
<td></td>
</tr>
<tr>
<td>• Recognized as own thoughts</td>
<td></td>
</tr>
<tr>
<td>• Cause anxiety and distress</td>
<td>• Underlying core beliefs in BDD focus more on unacceptability of the self -- e.g., being unlovable, inadequate, worthless. Moral repugnance is unusual.</td>
</tr>
<tr>
<td>• Usually resisted</td>
<td></td>
</tr>
<tr>
<td>• Sometimes similar content and core beliefs (e.g., symmetry)</td>
<td></td>
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</tbody>
</table>
Phenomenology: Ritualistic behaviours

- Camouflaging: 90%
- Comparing/scrutinising: 89%
- Mirror checking: 88%
- Questionning/reassurance seeking: 51%
- Grooming: 47%
- Skin picking: 32%
BDD

- Estimated prevalence of approximately 2% in community samples of adults.
- Associated with high levels of occupational and social disability, including absenteeism, unemployment, marital dysfunction, and reduced quality of life.
- Adolescent onset reported in 70% of cases...
- ... but has received little empirical attention in this age group.
BDD in adolescents

- Results in **major functional impairment** (e.g., reduced academic performance, social withdrawal, dropping out from school).
- **High suicidality rates** (reported 21-44% of patients attempting suicide).
Why is BDD under-diagnosed?

- Patients often seek non-psychiatric treatment
- Some mental health clinicians are unfamiliar with BDD
- Patients are secretive about the condition
- Young people: Symptoms are often mistaken as normal developmental concerns

Often, to make the diagnosis, BDD symptoms have to be specifically asked about
Simple BDD screening questions

- **Concern with appearance**: Are you very worried about your appearance in any way? (OR: Are you unhappy with how you look?) If yes, What is your concern?

- **Preoccupation**: Does this concern preoccupy you? That is, do you think about it a lot and wish you could think about it less? (OR: How much time would you estimate you think about your appearance each day?)

- **Distress or impairment**: How much distress does this concern cause you? Does it cause you any problems socially, in relationships, or with school/work?
Cosmetic treatments: Bad idea!

- 76% sought non-psychiatric treatment
- Received treatment: 60% (45% dermatological; 23% surgical)
- Surgeries per patient: mean=2, SD=1.4, range: 1-8
- Outcome
  - No change or worse: 69%
  - New appearance preoccupations can develop
  - Spiral of multiple procedures
  - Doctors can be sued and even attacked by dissatisfied clients!

Hoardings Disorder: 
A new mental disorder in DSM-5

The majority report that their problems began in the teenage years

Approx 2% of Swedish teenagers report difficulties discarding (Ivanov, 2013)

Substantial health risks

Most sufferers are diagnosed as adults
Hoardings Disorder: Diagnostic criteria

A. Persistent difficulty discarding or parting with possessions, regardless of their actual value.

B. The difficulty is due to a perceived need to save items and to distress associated with discarding them.

C. The difficulty discarding possessions results in the accumulation of possessions that congest and clutter active living areas and substantially compromises their intended use. If all living areas are uncluttered, it is only because of the interventions of third parties (e.g. family members, cleaners, authorities).

D. The hoarding causes clinically significant distress or impairment in social, occupational or other important areas of functioning (including maintaining a safe environment for self and others).

E. The hoarding is not attributable to another medical condition (e.g. brain injury, cerebrovascular disease, Prader-Willi syndrome).

F. The hoarding is not better explained by the symptoms of another mental disorder (e.g. obsessions in obsessive-compulsive disorder, decreased energy in major depressive disorder, delusions in schizophrenia or another psychotic disorder, cognitive deficits in major neurocognitive disorder, restricted interests in autism spectrum disorder).

Reprinted with permission from the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, (Copyright © 2013). American Psychiatric Association. All rights reserved.
Figure 2. Differential Diagnosis of Hoarding Disorder.
A careful psychopathological interview is necessary to establish the differential diagnosis of hoarding disorder.
Collecting: a widespread human activity

- Up to 70% of children own a collection (Evans et al. 1997)
- 30% of British adults have a collection at any given time (Pearce, 1998)
- Regarded as normative and benign
1 - Specify if:

With Excessive Acquisition: If difficulty discarding possessions is accompanied by excessive acquisition of items that are not needed or for which there is no available space.

2 - Specify if:

With good or fair insight: The individual recognizes that hoarding-related beliefs and behaviors (pertaining to difficulty discarding items, clutter or excessive acquisition) are problematic.

With poor insight: The individual is mostly convinced that hoarding-related beliefs and behaviors (pertaining to difficulty discarding items, clutter or excessive acquisition) are not problematic despite evidence to the contrary.

With absent insight/delusional beliefs: The individual is completely convinced that hoarding-related beliefs and behaviors (pertaining to difficulty discarding items, clutter or excessive acquisition) are not problematic despite evidence to the contrary.
Trichotillomania (Hair-Pulling Disorder)

Diagnostic Criteria

A. Recurrent pulling out of one's hair, resulting in hair loss.
B. Repeated attempts to decrease or stop hair pulling.
C. The hair pulling causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
D. The hair pulling or hair loss is not attributable to another medical condition (e.g., a dermatological condition).
E. The hair pulling is not better explained by the symptoms of another mental disorder (e.g., attempts to improve a perceived defect or flaw in appearance in body dysmorphic disorder).

312.39 (F63.2)
Excoriation (Skin-Picking) Disorder

Diagnostic Criteria 698.4 (L98.1)

A. Recurrent skin picking resulting in skin lesions.
B. Repeated attempts to decrease or stop skin picking.
C. The skin picking causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
D. The skin picking is not attributable to the physiological effects of a substance (e.g., cocaine) or another medical condition (e.g., scabies).
E. The skin picking is not better explained by symptoms of another mental disorder (e.g., delusions or tactile hallucinations in a psychotic disorder, attempts to improve a perceived defect or flaw in appearance in body dysmorphic disorder, stereotypies in stereotypic movement disorder, or intention to harm oneself in nonsuicidal self-injury).
Treatment of OCD-RDs: MAIN CHALLENGES

SOME OCD PATIENTS DO NOT RESPOND TO TR

WE DO NOT HAVE TREATMENTS FOR OCD-RDS

WE HAVE GOOD TREATMENTS FOR OCD BUT MOST CHILDREN ARE NOT RECEIVING THEM
NICE guidelines for OCD: Children

Heyman et al, 2006, BMJ
Cognitive behaviour therapy (ERP) +/- medication (SRI) are effective treatments in 60-70%: (Heyman et al, 2006; Turner, 2005; POTS, 2004)

Unclear if combining CBT and medication is superior to CBT alone; probably not (POTS, 2004; Ivarsson et al 2015)

Individual or group + family therapy (Barrett et al 2004)

ERP or CBT (Bolton et al 2011)

Long or short duration (12 sessions vs 5 sessions) (Bolton et al 2011)

Very early age of onset vs later age of onset (Nakatani et al 2011; POTS Jr)
Meta-analysis of SRI trials: Effective but effect sizes are modest

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>SRI Mean</th>
<th>SD</th>
<th>Total</th>
<th>Placebo Mean</th>
<th>SD</th>
<th>Total</th>
<th>Mean Difference (IV, Random, 95% CI)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeVeauh-Giess 1992</td>
<td>-10.0</td>
<td>7.9</td>
<td>31</td>
<td>-2.3</td>
<td>5.8</td>
<td>29</td>
<td>-7.70 [-11.19, -4.21]</td>
<td>10.0%</td>
</tr>
<tr>
<td>Geller 2001</td>
<td>-9.5</td>
<td>9.2</td>
<td>71</td>
<td>-5.2</td>
<td>7.4</td>
<td>32</td>
<td>-4.30 [-7.64, -0.96]</td>
<td>10.9%</td>
</tr>
<tr>
<td>Geller 2004</td>
<td>-8.8</td>
<td>8.1</td>
<td>98</td>
<td>-5.3</td>
<td>7.9</td>
<td>105</td>
<td>-3.50 [-5.70, -1.30]</td>
<td>25.1%</td>
</tr>
<tr>
<td>Liebowitz 2002</td>
<td>-6.6</td>
<td>8.1</td>
<td>21</td>
<td>-3.4</td>
<td>9.6</td>
<td>22</td>
<td>-3.30 [-6.60, 2.00]</td>
<td>4.3%</td>
</tr>
<tr>
<td>March 1998</td>
<td>-8.8</td>
<td>8.3</td>
<td>92</td>
<td>-3.4</td>
<td>8</td>
<td>95</td>
<td>-3.40 [-5.74, -1.06]</td>
<td>22.3%</td>
</tr>
<tr>
<td>POTS I 2004</td>
<td>16.5</td>
<td>9.1</td>
<td>28</td>
<td>21.5</td>
<td>5.4</td>
<td>28</td>
<td>-5.00 [-8.92, -1.08]</td>
<td>7.9%</td>
</tr>
<tr>
<td>Riddle 1992</td>
<td>13.6</td>
<td>5.7</td>
<td>7</td>
<td>14.8</td>
<td>7</td>
<td>7</td>
<td>-1.20 [-7.89, 5.49]</td>
<td>2.7%</td>
</tr>
<tr>
<td>Riddle 2001</td>
<td>-6.0</td>
<td>7.5</td>
<td>57</td>
<td>-3.3</td>
<td>7.5</td>
<td>63</td>
<td>-2.70 [-5.39, -0.01]</td>
<td>16.8%</td>
</tr>
<tr>
<td>Total (95% CI)</td>
<td>405</td>
<td></td>
<td></td>
<td>381</td>
<td></td>
<td>100.0%</td>
<td>-3.90 [-5.00, -2.79]</td>
<td></td>
</tr>
</tbody>
</table>

Heterogeneity: Tau² = 0.00; Chi² = 6.65, df = 7 (P = 0.47); I² = 0%
Test for overall effect: Z = 6.93 (P < 0.00001)

Ivarsson et al (2015), Psychiatry Res
CBT probably superior to SRIs

Ivarsson et al (2015), Psychiatry Res
SRI non-responders (POTS II study)

Responders
Medication: 30%
CBT instructions: 34%
CBT: 68%

Franklin et al, JAMA 2011
CBT non-responders (NordLOTS study)

- Phase I: 73% response
- Phase II: 48% response
- Combined response: 81%

The many challenges of OCD

- Some patients (1/3) do not respond sufficiently
- Long delays in the detection of OCD
  - 17 years on average in adults (Hollander et al., 1998)
  - 3 years on average in children (Chowdhury et al., 2004)
- Misdiagnosis is not uncommon
- Need for increased recognition at the earliest stages of the disorder (Micali et al., 2010) ➔ BETTER OUTCOMES
- Once diagnosed, patients not always getting the right treatments, particularly CBT (e.g., Choddhury et al. 2004)
- Ethnic inequalities (Williams et al., 2010; Fernández de la Cruz et al., in press)
Maudsley clinic: young people with OCD had rarely received CBT before assessment

How resistant is ‘treatment-resistant’ OCD?

- CYBOCS >30
- Previous failure
  - CBT *
  - SSRI
- 58% responded to treatment
- 22% in remission
- Medication group tended to do better (non-sign)

* CBT inadequate in 95.5% of cases (insufficient focus on ERP)

Krebs et al., Brit J Clin Psychol 2014
Pharmacoepidemiology of pediatric OCD (N=905)

- 85% RECEIVE AN SSRI
- ONLY 53% RECEIVE ADEQUATE DOSE!
- ONLY 43% RECEIVE AN ADEQUATE DOSE FOR ONE YEAR OR LONGER

SRI prescription guidelines
American Academy of Child and Adolescent Psychiatry (2012)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dosage range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citalopram</td>
<td>10-60</td>
</tr>
<tr>
<td>Clomipramine</td>
<td>50-300</td>
</tr>
<tr>
<td>Escitalopram</td>
<td>-</td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>10-80</td>
</tr>
<tr>
<td>Fluvoxamine</td>
<td>50-300</td>
</tr>
<tr>
<td>Paroxetine</td>
<td>10-60</td>
</tr>
<tr>
<td>Sertraline</td>
<td>50-200</td>
</tr>
</tbody>
</table>

Swedish National Patient Register
Swedish Prescriptions Register

Isomura et al, in preparation
Ethnic inequalities in the use of secondary and tertiary mental health services among patients with obsessive–compulsive disorder

Lorena Fernández de la Cruz, Marta Llorens, Amita Jassi, Georgina Krebs, Pablo Vidal-Ribas, Joaquim Radua, Stephani L. Hatch, Dinesh Bhugra, Isobel Heyman, Bruce Clark and David Mataix-Cols

Fig. 2 Ethnic distribution of the population of the South London and Maudsley (SLaM) NHS Foundation Trust catchment area (Censuses 2001 and 2011) and obsessive–compulsive disorder and depression service users during the 14-year time frame: 1999–2013.

Percentages do not always add to 100.0% because of rounding.

Fernández de la Cruz et al., in press, British Journal of Psychiatry
Outcomes in white vs non-white patients

Fernández de la Cruz et al., 2015, JOCRDs
Improving outcomes

Clinical needs

- Development of better treatments
- Adapting treatments for particular populations

Innovation

Consolidation
OCD in Autism Spectrum Disorder

- High rates of anxiety disorders in ASD
  - Child and Adult Studies (Kim et al, 2000; Ghaziuddin, 2005)
  - 11 to 84% (White, Oswald, et al. 2009)

- OCD particularly common
  - South et al. (2005)
  - McDougle et al.(1995)
  - Russell et al (2005)

- Often untreated (“part of the ASD”)

- Unnecessary distress

- Predicts poor response

*Murray et al, 2015, Psych Res*
ASD+OCD project

- Develop and manualise a CBT protocol for OCD in this particular population

- Systematically evaluate it via a RCT
  - Adapted CBT for OCD vs a credible control treatment

Ailsa Russell’s PhD
Adapted CBT protocol

- Manual: CBT for OCD with adaptations for ASD
  - Expert recommendations (Attwood, 1999; Anderson & Morris, 2006)
  - Experience from pilot study
  - Theoretical literature

- Up to 20 sessions (mean 17 sessions)

- Longer period of assessment/formulation (4 sessions or more if needed)

- Education about anxiety and OCD
  - Visual aides
  - Special interest/concrete analogy

- Exposure & Response Prevention (ERP)
  - Graded hierarchy
  - Therapist modelling/direction

- Cognitive elements
Use of visual aides
Capitalising on ‘special interests’

Harry Potter hierarchy

Voldemort
Wormtail
Lucius
Draco
Professor Snape
The Dursley
Professor Telawny
Hagrid
Neville
Hermione
Ron
Harry
Example: Anchoring feelings with visual symbol and special interest in football

<table>
<thead>
<tr>
<th>Feeling</th>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Good</td>
<td>😊</td>
<td>Barcelona have won a match</td>
</tr>
<tr>
<td>Good</td>
<td>🤚</td>
<td>Barcelona have drawn a match</td>
</tr>
<tr>
<td>Okay</td>
<td>👐</td>
<td>Barcelona have lost 1-0. I keep thinking about it. I want to punch the air.</td>
</tr>
<tr>
<td>Not So Good</td>
<td>🤦</td>
<td>Barcelona have lost 5-0. I keep thinking about it. I want to punch the air.</td>
</tr>
<tr>
<td>Very Bad</td>
<td>🙅</td>
<td>Barcelona have lost 10-0 (and their best player was injured). I keep thinking about it. I want to punch the air. I want to swear</td>
</tr>
</tbody>
</table>
### Randomised (n=46)

- Allocation to CBT (n=23)
- Received allocated intervention (n=23)
- Discontinued intervention (n=3): Depression (n=1), Withdrew assent (n=1), Reason unknown (n=1)
- Allocation to Anxiety Management (n=23)
- Received allocated intervention (n=23)
- Discontinued intervention (n=3): Depression (n=1), Withdrew assent (n=1), Reason unknown (n=1)

### Follow-up

- Attendees (n=17)
- Did not attend (n=2)
- Cross-over to other treatment after this point (n=9)
- Entered follow-up (n=11)

### Analysis

- Analyzed (n=20)
- Excluded from analysis (n=3): Discontinued/lost to follow-up

### 1 month follow-up

- Attended (n=18)
- Did not attend (n=2)
- Cross-over to other treatment (n=3)
- Entered follow-up (n=17)
Anxiety Management (control)

- Based on previous studies with some ASD adaptations (Cautela & Groden, 1978, Schneider et al, 2006)
  - Anxiety education
  - Breathing practice
  - Relaxation training and practice
  - Mood monitoring
  - Healthy Habits
  - Problem solving

- No ERP or cognitive techniques

- Up to 20 sessions (Mean 16 sessions)
Main results: YBOCS severity

- Both groups improve significantly, with a slight advantage of CBT > AM
- Treatment responders: 45% CBT group

Psychological treatment for OCD can be effectively adapted for ‘difficult’ populations

Russell et al, Depression and Anxiety, 2013
Augmenting CBT with fear extinction enhancers

- No clear benefit of combining CBT with SRIs
- Novel treatment combinations, e.g. use of fear extinction enhancers to augment CBT
- D-Cycloserine is a partial NMDA-agonist
DCS in various anxiety disorders

- Promising trials
  - Fear of heights (Ressler et al., 2004)
  - Social phobia (Hoffman et al., 2006; Guastella et al., 2008)
  - Panic disorder (Otto et al., 2009)
  - OCD (Kushner et al., 2007; Wilhelm et al., 2008; Storch et al., 2010)

- Negative trials (adults)
  - Spider phobia (Guastella et al., 2007)
  - OCD (Storch et al., 2007)

- Many more ongoing trials in adults as well as children

Wilhelm et al. AJP 2008
Maudsley pilot double blind RCT in adolescents with OCD

N = 27 patients

N = 13
14 CBT + 50mg DCS

N = 14
14 CBT + 50mg placebo

Funded by: NIHR Biomedical Research Centre for Mental Health

Mataix-Cols et al 2014, British Journal of Psychiatry
Standard clinic protocol

- 14 sessions on a weekly basis (within 17 weeks)
  - Session 1-2: education about anxiety and OCD
  - Session 3-12: E/RP
  - Followed by 50mg DCS or placebo
  - Session 13-14: Relapse prevention
  - Standard follow-up: 1, 3, 6 and 12 months

Mataix-Cols et al 2014, British Journal of Psychiatry
Sometimes you lose...

Assessment Point (Baseline, session1-14, Follow up)

Mataix-Cols et al 2014, British Journal of Psychiatry
...but homework compliance matters

DCS may more effectively facilitate the effects of CBT when patients are compliant with prescribed homework.
Original Investigation

**D-Cycloserine vs Placebo as Adjunct to Cognitive Behavioral Therapy for Obsessive-Compulsive Disorder and Interaction With Antidepressants**

A Randomized Clinical Trial

Erik Andersson, PhD; Erik Hedman, PhD; Jesper Enander, MSc; Diana Radu Djurfeldt, MD, PhD; Brjánn Ljótfsson, PhD; Simon Cervenka, MD, PhD; Josef Isung, MD; Cecilia Svanborg, MD, PhD; David Mataix-Cols, PhD; Viktor Kaldo, PhD; Gerhard Andersson, PhD; Nils Lindefors, MD, PhD; Christian Rück, MD, PhD

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**Graphs**

**A** Clinician-Rated Y-BOCS

**B** Clinician-Rated Y-BOCS

- Receiving antidepressants
- Not receiving antidepressants

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Andersson et al 2015, JAMA Psychiatry
Developing treatments for pediatric BDD

BACKGROUND
- CBT efficacious for adults with BDD
- No evidence in pediatric populations (case series)

AIMS
- Develop a developmentally tailored CBT protocol for young people with BDD, involving family when appropriate.
- Evaluate its efficacy in a pilot randomized controlled trial.
Reflecting on your Reflection: A Treatment Manual for BDD
Protocol

- **CBT: 14 sessions offered flexibly over 4 months**
  - Sessions 1-2 (90 minutes): Psychoeducation, resolve ambivalence, case formulation, goal setting, ERP rationale.
  - Sessions 3-12 (60 minutes): Exposure and response prevention (ERP). Other optional modules to promote engagement with ERP (mainly: mirror retraining and attention training).
  - Sessions 13-14 (60 minutes): Relapse prevention.

- Developmentally appropriate content

- Strong parental involvement, depending on individual formulation (e.g., more accommodation = more parental involvement)
**Trial design:**

- **BDD Assessment**
  - **CBT group**
    - 14 sessions of CBT over 4 months
  - **Control group**
    - Written material with information about BDD
    - Weekly phone calls to assess and manage risk over 4 months

- **End of active phase**
  - 2-month follow-up measures administered

- **Crossover to CBT**

Follow-up assessments completed at 6 and 12 months after end of treatment. End of study.
Assessed for eligibility (n = 51)

Excluded (N = 21):
- Other Axis I diagnosis (n = 6)
- No Axis I diagnosis (n = 2)
- High risk (n = 5)
- Opted for different treatment (n = 7)
- Family difficulties (n = 1)

Randomised (n = 30)

Allocated to CBT (n = 15)
- Received allocated intervention (n = 15)
- Did not receive allocated intervention (n = 0)

Allocated to control group (n = 15)
- Received allocated intervention (n = 14)
- Did not receive intervention (n = 1; dropped-out after knowing condition)

Treatment

Completed CBT (n = 15)
Dropped-out (n = 0)

Completed Control (n = 14)
Dropped-out (n = 0)

2-month follow-up

Followed-up at two months (n = 15)
Lost to follow-up (n = 0)

Followed-up at two months (n = 13)
Lost to follow-up (n = 1; did not want treatment)

ITT analysis

Analysed (n = 15)
- Excluded from analysis (n = 0)

Analysed (n = 15)
- Excluded from analysis (n = 0)
Results

- **Primary outcome:** interaction time x group is significant at post-treatment and at 2m FU.

![Graph showing BDD-YBOCS-A Total Score over time with control and CBT groups, indicating effect sizes of d=1.13 and d=0.85.](image-url)
Results

- Treatment response (≥30% reduction in the BDD-YBOCS) at post-treatment and at FU:
  - 40% (n=6) in the CBT group
  - 6.7% (n=1) in the control group

- CGI score of 2 (much improved) or 1 (very much improved):
  - 53% (n=8) in the CBT group
  - 0% (n=0) in the control group

• Developmentally tailored CBT is a promising intervention for youths with BDD
• There is substantial room for improvement
• Pressing need to compare CBT, SSRIs and their combination in pediatric BDD
Clinical needs

- Dissemination
- Training
- Specialist services

Innovation - Consolidation
After decades of evidence-based treatments for OCD...
- the majority of patients remain untreated...
- or receive the wrong treatment!

Still poor awareness

Lack of expertise (particularly CBT)

Difficult to access remote areas

Ethnic minorities underserviced

= HUGE UNMET NEED!! WHAT CAN WE DO?
Breaking the ritual

Brain & behaviour

People who display repetitive behaviour or seem distressed may be suffering from obsessive compulsive disorder. Here are some strategies on how to help them.

Introduction

Obsessive-compulsive disorder (OCD) is a chronic mental health condition that is usually associated with both obsessive thoughts and compulsive behaviour.

Obsessions

An obsession is defined as an unwanted thought, image or urge that repeatedly enters a person’s mind.

Compulsions

A compulsion is defined as a repetitive behaviour or mental act that a person feels compelled to perform.

Unlike some other types of compulsive behaviour such as an addiction to drugs or gambling, a person with OCD gets no pleasure from their compulsive behaviour. They feel that they need to carry out their compulsions to prevent their obsession becoming true. For example, a person who is preoccupied with the fear that they will catch a serious disease may feel compelled to have a shower every time they use a public toilet.
Channel 4 Documentary
2006

“Help me, help my child”

4 on Demand
www.channel4.com
Dissemination of evidence-based treatments

- Training of clinicians
- Self-help (e.g., bibliotherapy)
- Telephone treatment
- Internet treatment
- Reaching disadvantaged groups (e.g., ethnic minorities)
Telephone treatment for youth with OCD

- Improve access to and availability of CBT
- Establish efficacy
- Establish feasibility
- Determine acceptability
Standard clinic protocol

- 14 sessions on a weekly basis (within 17 weeks):
  - Session 1-2: education about anxiety and OCD
  - Session 3-12: E/RP
  - Session 13-14: Relapse prevention
  - Standard follow-up: 1, 3, 6 and 12 months
Learning about OCD and FIGHTING BACK!

A CBT Workbook for Young People

Written by Cynthia Turner
Illustrated by Lisa Jo Robinson
Tool 1: Understanding Anxiety

Anxiety is a normal feeling that everyone has from time to time. When we feel anxious, we usually get changes in our body to help us understand how we are feeling.

What happens to your body when you feel anxious or worried about something? Let's make a list of how you feel anxiety affects you:

- e.g. Headache
- Feel sick
- Tense
- Fiddle with things
- Itchy
- Achy
- Pains
- Shaking
- Faster breathing
- Sweating

---

1st time
--- 2nd time
--- 3rd time

**1st time**
The first time we do it, we feel really anxious!

**2nd time**
The second time, our feelings are not quite so bad again.

**2nd time**
If we keep going, the feelings keep getting smaller and smaller, and then we don't feel anxious at all!
Non-inferiority RCT

Figure 1. CONSORT Diagram.

- Enrolment
  - Assessed for eligibility (n=177)
  - Excluded (n=18)
    - Not meeting inclusion criteria (n=5)
    - Symptoms prevented phone use (n=2)
    - Did not wish to travel to clinic (n=3)
    - Did not want telephone therapy (n=8)
  - Randomised (n=72)

- Allocation
  - Allocated to CBT (n=36)
  - Allocated to TCBT (n=36)

- Treatment
  - Completed CBT (n=33)
    - Lost to follow-up (n=1)
    - Drop-out (n=2)
  - Completed TCBT (n=33)
    - Withdrawn/further tx (n=1)
    - Drop-out (n=2)

- 3 M Follow-up
  - Completed 3 month follow-up (n=30)
    - Withdrawn/further tx (n=1)
    - Lost to follow-up (n=2)

- 6 M Follow-up
  - Completed 6 month follow-up (n=27)
    - Withdrawn/further tx (n=3)

- 12 M Follow-up
  - Completed 12 month follow-up (n=27)

- ITT Analysis
  - Analysed (n=72)
Telephone vs face to face CBT results

- Non-inferiority demonstrated
- Highly acceptable for patients
- No savings in clinician time

Turner et al. 2014 JAACAP
Internet CBT for young people with OCD with minimal therapist backup: BIP OCD

Lenhard et al., 2014 PLOS ONE
# BIP OCD chapters

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doi:10.1371/journal.pone.0100773.t002
BIP OCD clip I (psychoeducation)
BIP OCD clip II (ERP)
Internet CBT for young people with OCD with minimal therapist backup: BIP OCD

Clinician time:
About 20 minutes per patient per week!!

$d = 2.29$

Lenhard et al., 2014 PLOSONE
Towards a stepped care model

- **Case complexity**:
  - Computer- or book-guidance at home + brief therapist support
  - Brief spaced face-to-face guidance
  - Intensive face-to-face guidance

- **Level of institutional support**:
  - Primary care
  - Out- or day patient care
  - Hostel or inpatient care

* > co-morbidity, < insight, < motivation

Mataix-Cols and Marks, 2006 Eur Psychiatry
Conclusions

- OCD-RDs are prevalent and there is a huge unmet need
- Treatments for OCD are pretty good but there is room for improvement
- Biggest challenge: to disseminate existing evidence-based treatments
- Much work needs to be done for the other OCD-RDs
- This work would be optimally orchestrated from specialist centres, where clinical work and research go hand in hand
# Acknowledgements

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