Psychopharmacology in the Treatment of OCD, Tics and Related Disorders

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Topics Today

1. Evaluation of OCD in children and adolescents
2. Review the treatments for OCD including behavioral therapy and medications
3. Evaluation of tics and other comorbid disorders
4. Review the treatments for tic disorders including behavioral therapy and medications

What is OCD?

- It's all in the name: O - C - D
- The central issues are the same as in adults
  - **O**bsessions: intrusive thoughts that cause distress and anxiety.
  - **C**ompulsions: compulsive behaviors that alleviate the distress and anxiety.
  - **D**isorder and Dysfunction
- Related disorders
  - Body dysmorphic disorder
  - Hoarding disorder
  - Trichotillomania
  - Excoriation (skin picking) disorder

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Attributes of OCD in Children

- Frequently children don't recognize that the symptoms are irrational, meaningless or caused by a disorder.
- Sometimes young children aren't able to say why they are doing a ritual (but become distressed if they have to stop)

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Attributes of OCD in Children (cont.)

- Accommodation – when family members "help" by tolerating avoidance, assisting in rituals, offering reassurance. What's wrong with reassurance?
- The degree of accommodation is generally proportional to the degree of dependency.

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Psychiatric Co-morbidities

- Perhaps as high as 80% of children with OCD meet the criteria for another diagnosis
- Tics ~ 50%
- Other anxiety disorders ~ 50%
- Mood disorders ~ 25%
- Externalizing disorders ~ 50%

Eur Child Adolesc Psychiatry. 2010 August; 19(8): 637–645

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Treatment Options

- Cognitive Behavioral Therapy (CBT)
  - Exposure and Response Prevention
- Medications
  - SSRIs
  - Clomipramine
  - Adjunctive medications
- How do we decide?
  - Medication alone
  - Therapy alone
  - Both

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When to recommend behavioral therapy?

- Any one struggling with anxiety can benefit from CBT
- Foundations are the same for any anxiety disorder
  - Cognitive: learn to argue with the anxiety, come to see it as unreasonable
  - Behavioral: Confront the irrational fear and tolerate the resulting increase in anxiety
- Enlist family members as teammates in the fight
- Once learned it can be applied across the lifespan

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What is the behavioral therapy for OCD?

- Exposure and Response Prevention or ERP
  - Exposure – purposefully and in a controlled manner facing the fear situation or stimulus
  - Response Prevention – in the context of the anxiety not using ritual for relief
- Example
  - Obsession – fear of getting sick from touching “dirty” objects.
  - Compulsion – frequent hand washing
  - Exposure – touch a door knob on purpose
  - Response prevention – don’t wash hands
- Is there a role here for primary care providers?

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Factors in Decision Making about Therapy or Medications

- Age – all other things being equal, we tend to start younger children with therapy
- Availability of high quality therapy
- Symptom severity and disability
- Insight
- Comorbidity
- Patient’s and parent’s preference

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The Data

- The best large-scale studies looking at OCD treatment options in childhood have been headed by John March at Duke
  - POTS-I (Pediatric OCD Treatment Study), JAMA, Oct. 2004.
  - POTS-II, JAMA, Sept. 2011
- 4 medications have FDA approval for OCD in childhood and we'll go over each briefly
  - clomipramine (Anafranil)
  - fluvoxamine (Luvox)
  - fluoxetine (Prozac)
  - Sertraline (Zoloft)

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POTS-I

- Published in 2004- NIMH funded randomized 12 week trial of 112 children with moderate to severe OCD. Randomized to 4 different arms:
  - CBT
  - Sertraline
  - Sertraline + CBT
  - Placebo
- Subjects
  - 7-17 years of age (mean 11.7 years old)
  - Approx ½ male, ½ children, ½ adolescent
  - Approx 80% with comorbid disorder (63% internalizing, 27% externalizing, 16% with tic disorder)

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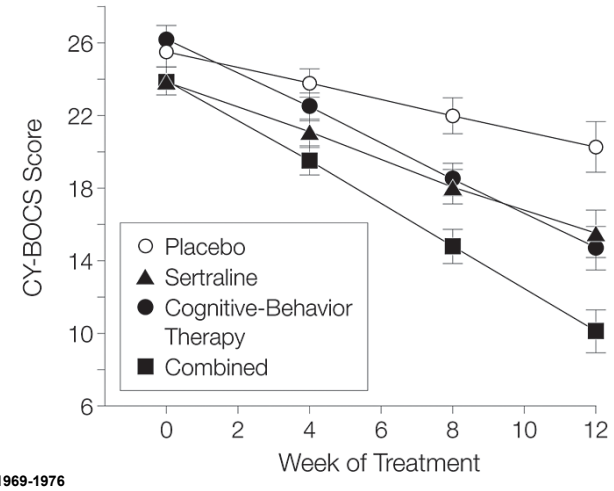
POTS-I. Treating children with medication, CBT or both



JAMA 2004;292:1969-1976

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For Comparison

- Child/Adolescent Anxiety Multimodal Study (CAMS)–2008
- 488 children with separation anxiety, general anxiety, or social phobia. Most had more than one and 1/3 had all three.
- 12 weeks with placebo, cbt, sertraline, or combined cbt+sertraline
- Very similar outcome

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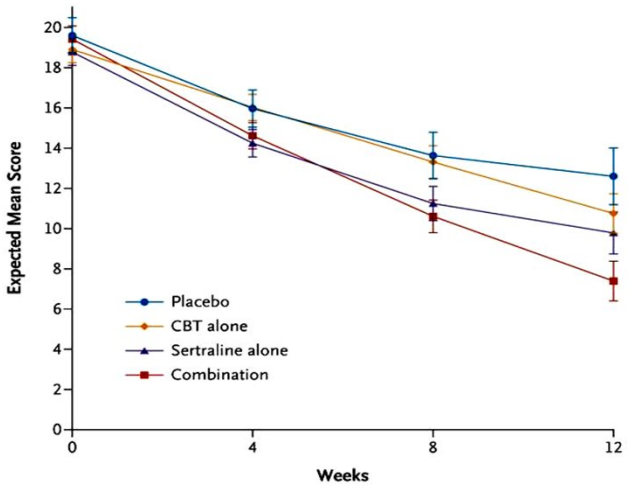
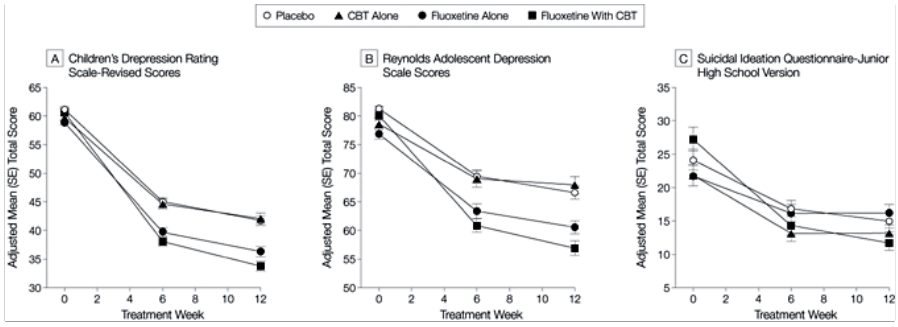
Cognitive Behavioral Therapy, Sertraline, or a Combination in Childhood Anxiety



NEJM 2008; 359, 26

For Comparison - TADS



JAMA 2004;292:807-820

POTS-II Adding CBT to Medication Partial Responders

- Study of the utility of CBT (ERP) augmentation in medication partial responders.
- 12 week study of 124 patients randomized to 3 arms
  - Continue meds alone
  - Meds with “instruction in cbt”
  - Meds with formal exposure and response prevention therepy

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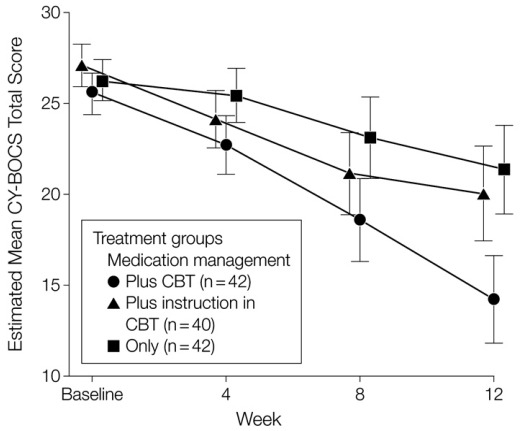
POTS-II. Adding CBT to medication partial responders



JAMA 2011;306:1224-1232

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FDA Approved for OCD in Childhood – Dosing Guidelines

- SERTRALINE (Zoloft)
  - 6-12 years old – start 25 mg daily; maximum dosage of 200 mg/day
  - 13-17 years old – start 50 mg daily; maximum dosage of 200 mg/day
- FLUOXETINE (Prozac)
  - >7 years old -- start 10 mg daily; maximum dossage of 30 mg/day
  - larger children and adolescents -- start 10 mg daily; maximum dosage of 60 mg/day
- FLUVOXAMINE (Luvox)
  - 8-11 years old – start 25 mg daily; maximum dosage of 200 mg/day
  - 12-17 years – start 25 mg daily: maximum dosage of 300 mg/day
- CLOMIPRAMINE (Anafranil)
  - >10 years old – start 25mg daily; maximum 200 mg/day OR 3 mg/kg of body weight [whichever is less])

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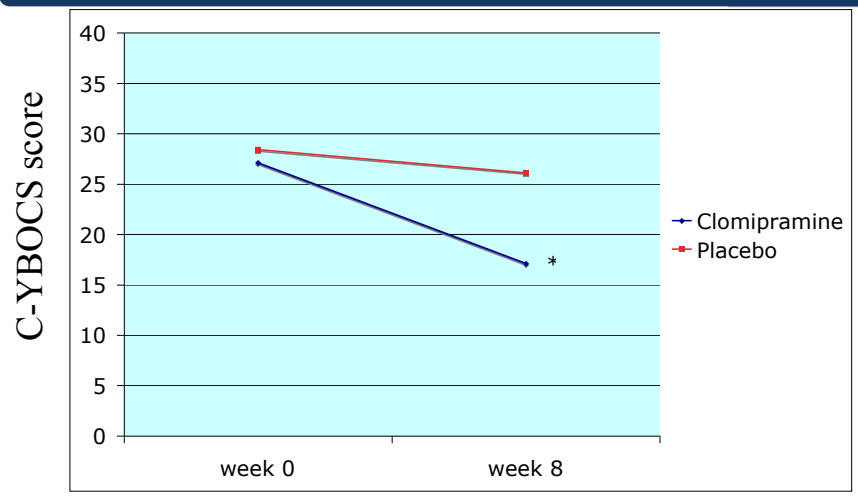
Clomipramine



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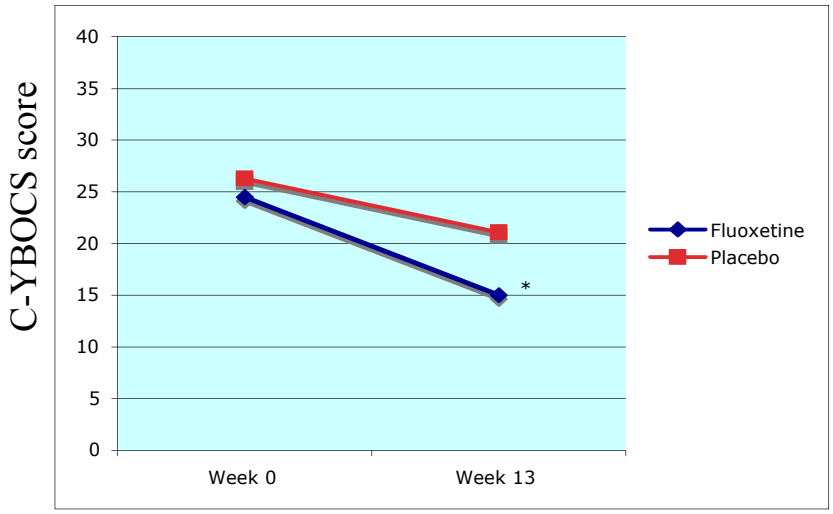
DeVeaugh-Geiss J, et al, JAACAP, Jan 1992, Duration: 8 weeks, 60 patients, 10-16 years old

Fluoxetine



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Geller et al, JAACAP, July 2001, Duration: 13 wks, 7-17 years of age, number:103

SSRI Side effects

- Usually very well tolerated though several concerning side effects
- Common
  - Gastrointestinal distress
  - Sleep changes
  - Weight changes
  - Behavioral activation
- Less frequent but more concerning
  - Suicidality
  - Induction of (hypo) mania
  - Unusual movements

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Side effects (continued)

Clomipramine--all of the above plus:

- Dry Mouth
- Dizziness
- Fatigue
- Tremor
- Increased risk of seizure (with high doses)
- Increased risk of cardiac problems (with high doses)
- Need for ekgs and sometimes blood level monitoring
- Is it worth it?

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How SRIs are typically used in pediatric OCD

- Start low
- Watch for side effects, particularly activation and suicidality (recommendations for monitoring in OCD just like for depression). The FDA recommendation includes being seen by a health care professional weekly for the first 4 weeks of treatment and asked about suicidality.
- Dose typically needs to be higher for OCD than depression, and should remain at maximum tolerable dose for 8-12 weeks before evaluating.
- One failed SSRI does not rule out trial(s) of other SSRIs.
- Clomipramine may be more effective, maybe, but typically used as second line agent given tolerability
- Augmentation strategies– later.

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How well do they work?

- Overall the medications work well even when used alone, with significant improvement for as many as 50% or more when the right medication is found.
- What are the predictors of poor response?
  - Prominent side effects
  - High severity
  - Comorbid ADHD, oppositional defiant behavior, conduct disorder
  - High parental stress

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Case Example

- 10 year girl, brought in by mother for well-child visit, describe increasing touching and tapping behaviors. Some symptoms have been present for years, but now much worse over the last few months. It turns out she has an uncomfortable feeling that something bad will happen if she doesn't even up. No marked impairment in function but some issues in school and friendships.
- You refer to a good behavioral therapist in the community, patient starts doing some exposures but only modest improvement after 2 months. Therapist refers back to you for possible medications.

- What should you do?
- Start sertraline 25mg x 1 week increase to 50mg x 1 week, see them at 2 weeks, lets say no side effects, increase to 100mg x 1 week then 150mg, then see them at 4 weeks, let's say no side effects. Then leave for 8 weeks and reassess.

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Other Anti-depressants

- Other antidepressants
  - Other SSRI's – All of them have been used and there is no evidence of poor efficacy or intolerability.
    - Lexapro (escitalapram)
    - Paxil (paroxetine) (short half life, risk of rebound if doses missed)
    - Celexa (citalopram), no reason for children with OCD to use given cardiac issues at higher doses and availability of generic lexapro.
  - SNRI's -- No studies in childhood OCD, some evidence for both in adults
    - Cymbalta (duloxetine)
    - Effexor (venlafaxine)

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Adjunctive medications

- Atypical Antipsychotics (in approx decreasing frequency of use)
  - These medications are familiar to clinicians treating children given their use in disruptive behaviors, bipolar disorder and psychosis. Also used in tic disorders
    - Risperdal (risperidone)
    - Abilify (aripiprazole)
    - Seroquel (quetiapine)
    - Zyprexa (olanzapine)
    - Geodon (ziprasidone)
- Benzodiazepines
  - Used less frequently in children than adults, very little evidence for or against use
  - Rapid anxiolytic effects, nothing to address long term symptoms
  - May get in the way of exposures, but sometimes very helpful.
  - Helpful in the short-run but can be difficult to stop

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Tics and Tourette's

- A "tic" is a sudden, rapid, recurrent, non-rhythmic, stereotyped motor movement or vocalization
- A tic may be simple (involving only a few muscles or simple sounds) or complex (involving multiple groups of muscles recruited in orchestrated bouts or words or sentences)
- Can be motor or phonic, if both are present over the course of a year it's called Tourette's if only one variety it's diagnosed as motor or vocal tic disorder.
- Common in childhood and generally transient, requiring no intervention.
- Typically, but not always resolved during adolescence.

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Evaluation of Tics

- Evaluate for duration, impairment, underlying medical causes (e.g. hyperthyroidism, various genetic disorders) including evidence of Group A beta hemolytic streptococcal infection.
- If positive strep throat culture and elevated ASO titer in the context of rapid onset of symptoms consider PANDAS (or PANS) and monitor for relationship between evidence of strep infection and worsening symptoms. PANS remain somewhat controversial, and the diagnosis is challenging.

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Treatment for Tics

- When should formal treatment be recommended?
  - If symptoms are functionally impairing
  - If behaviors are causing pain and physical disability
  - If behaviors are psychologically distressing and refractory to some gentle cognitive restructuring
- If appropriate encourage patient to tolerate tics
- Sometimes parents are much more distressed about the tics than the patient.
- If behavioral therapy is available start that before meds

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Habit Reversal Therapy

- Like ERP for OCD there is a behavioral therapy for tic disorders, it's called Habit Reversal Therapy (HRT) or more specifically Cognitive Behavioral Intervention for Tics (CBIT)
- HRT helps the patient identify the feeling that comes before the tic (called the premonitory urge) and then teaches how to replace the problematic behavior with a less problematic behavior (called the competing response).
- It works, but as with ERP you need a trained therapist and a significant commitment from the child and his family.
- HRT is also the behavioral approach to trichotillomania, skin picking and other body-focused repetitive behaviors.

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First line: Alpha2 Adrenergic Agonists

- Antihypertensive medications
- Also used in ADHD and aggression
- Side effects
  - Sedation, headache, vital sign changes, orthostatis
- Guanfacine (Tenex and Intuniv)
  - 1mg-4mg (Tenex usually 2x/day, Intuniv usually 1x/day)
- Clonidine (Kapvay)
  - 0.05-0.4mg (usually 2-3x per day, Kapvay usually 1-2x/day).
  - Tends to be more sedating than guanfacine

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Second Line: Atypical Antipsychotics

- Atypical antipsychotics
  - Aripiprazole (Abilify) – now has FDA indication for treatment of tics in children and adolescents.
  - Risperidone (Risperdal)
  - Quetiapine (Seroquel)
  - Olanzapine (Zyprexa)
  - Ziprasidone (Geodon)
- Used in psychosis, bipolar disorder, treatment refractory depression, OCD and many other disorders.
- Side effects are variable between medications but as a class include weight gain, metabolic syndrome, sedation, extrapyramidal symptoms.
- More effective than alpha agonists, but more side effects

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Third Line: Typical antipsychotics

- Pimozide (Orap)
- Haloperidal (Haldol)
- Probably the most effect but also the most problematic side effects
- Side effects including EPS including dyskinesias (including tardive dyskinesia), akathisia, dystonic reactions, tremor

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Summary

- OCD and tics are common in childhood, and are commonly comorbid.
- Both OCD and tics respond well to behavioral therapy and medications
  - In OCD the therapy is called ERP (exposure and response prevention) and the first line treatments are the SSRIs.
  - In tic disorders, including Tourette's, the therapy is called HRT (habit reversal therapy) and the first line treatments are the alpha 2 agonists.

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