## **OCD & Anxiety:** Symptoms, Treatment, & How to Cope

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## Outline of talk

- Introduction
  - Very brief introduction to anxiety disorders
  - Very brief introduction to our OCD research program

#### • What do we know about OCD?

- What is it?
- How do we treat it?
- What causes it?
- Opportunities and Challenges

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  - Current: NARSAD; Molberger Scholar Award, Gray Matters at Columbia University
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  - Medication from Janssen Pharmaceutica for an NIMH-funded study (2006-2012)
  - Unrestricted gift from Neuropharm Ltd to explore novel medications in OCD (2009)

#### • Scientific Advisory Board/Consultant:

- Jazz Pharmaceuticals (re. Luvox CR, 2007)
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#### Other

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# Anxiety Disorders

- Group of illnesses characterized by fear and/or anxiety:
  - Posttraumatic stress disorder
  - Obsessive-compulsive disorder (OCD)
  - Social anxiety disorder/Social phobia
  - Panic Disorder & Agoraphobia
  - Specific Phobia
  - Generalized anxiety disorder
- Prevalence: 29% of adults in America
- Onset: often childhood or adolescence (*precursor to depression*)
- Impact public health

### Evidence-based treatments

#### • Medications

- Serotonin reuptake inhibitors (e.g., Prozac, Zoloft)
- Benzodiazepines (e.g., Ativan, Klonopin)

#### • Cognitive-behavioral therapy

- Exposure to stimuli that generate anxiety
- Modifying maladaptive cognitions

#### Overview of our OCD research program

- Clinical research: *for patients of today* 
  - Examining how best to combine pharmacotherapy and psychotherapy
  - Testing novel treatment strategies\*
- Neurobiological research: *for patients of tomorrow* 
  - Studying brain circuits implicated in OCD (PET, MRS, fMRI)\*
  - Identifying shared & distinct neural correlates of behavior across disorders
  - Examining brain mechanisms using animal models\*
  - \* BBRF/NARSAD supported pilot studies.

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What is OCD?

## OCD: A Disabling Disorder

- Lifetime Prevalence: ~2%
- Median age of onset = 19 (versus Major Depression=32)
  - 25% of cases by age 14
- Typically chronic, waxing and waning course
- High proportion of serious (50%) and moderate (35%) cases

Skoog and Skoog 1999; Kessler et al. 2005; Ruscio et al. 2008

# Hallmarks of OCD

- **Obsessions:** repetitive thoughts, impulses, or images that are intrusive, inappropriate, and distressing
- *Compulsions:* repetitive behaviors or mental acts that the person performs to reduce distress or to prevent a feared outcome
- Symptoms are distressing, time consuming, and impairing.

Diagnostic and Statistical Manual of Mental Disorders

# Clinical Phenotype

- Associated features
  - Range of content and fears ("symptom dimensions")
    - Harm, contamination, taboo thoughts, symmetry, hoarding
  - Different affects
    - *Anxiety, tension/not just right, disgust*
  - Range of insight

#### Comorbidity

- Depressive and other anxiety disorders
- Tics, Tourette's Disorder, and ADHD
- OC "spectrum:" eating disorders, trichotillomania, skin picking, BDD
- Other: Schizophrenia, autism, bipolar disorder

## What is not OCD?

- Intrusive thoughts and repetitive behaviors occur in all of us.
- Distinguishing OCD from other disorders
  - Obsessions versus worries (GAD) or ruminations (MDD)
  - OCD versus PTSD
  - OCD versus other disorders with repetitive behaviors (e.g., Trichotillomania or Skin Picking)
  - OCD versus Hoarding Disorder
  - OCD versus Obsessive-Compulsive Personality Disorder

# How is OCD treated?

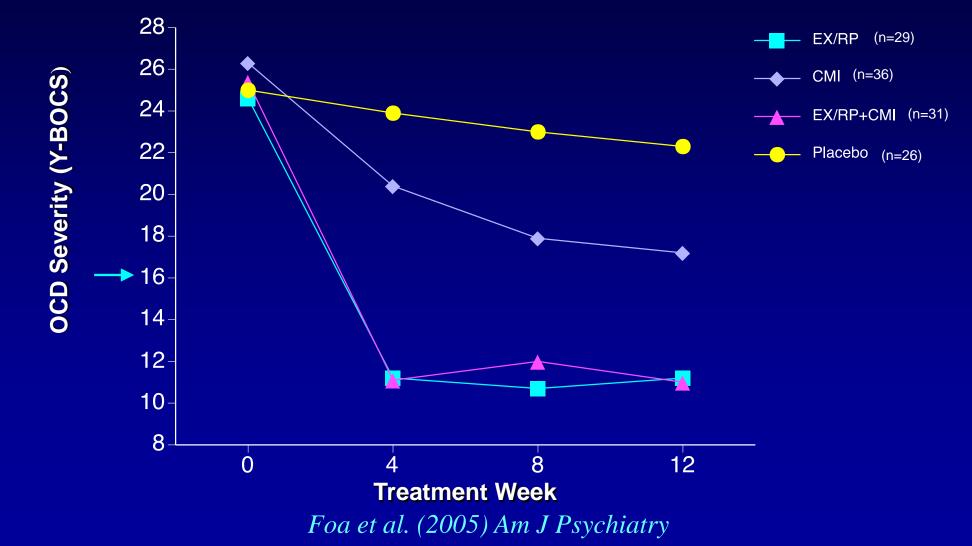
### First-line Treatments for OCD

- Serotonin reuptake inhibitors (SRIs)
  - clomipramine
  - Selective SRIs: fluoxetine, fluvoxamine, paroxetine, sertraline, citalopram,\* escitalopram\* (\*not FDA approved for OCD)
- Cognitive-Behavioral Therapy
  - Exposure and Response/Ritual Prevention (EX/RP or "exposure therapy" or ERP)

How effective are SRIs versus EX/RP?

### Comparing EX/RP, CMI, and EX/RP+CMI

*EX/RP or EX/RP+SRI > SRI > PBO* 



#### Conclusions

• EX/RP and SRIs are both efficacious for OCD

#### • EX/RP can be superior to SRIs

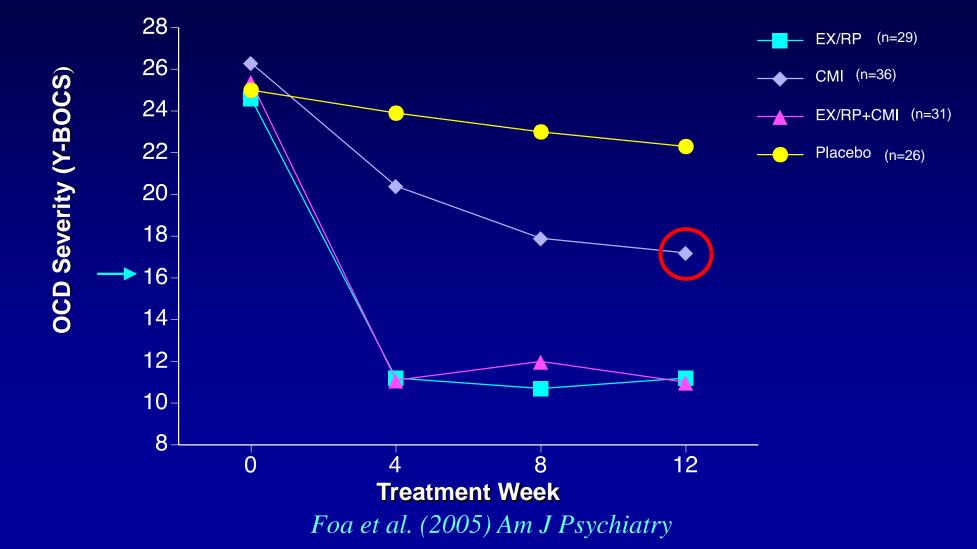
when delivered intensively by skilled therapists to patients without significant depression

• EX/RP+SRI was not clearly superior to EX/RP alone

- when treatments are started together and EX/RP is delivered optimally

## Comparing EX/RP, CMI, and EX/RP+CMI

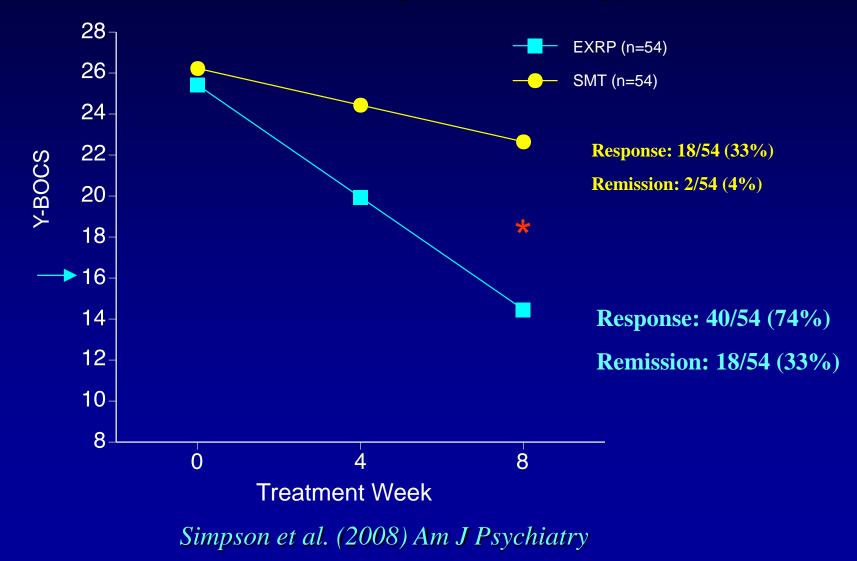
*EX/RP or EX/RP+SRI > SRI > PBO* 



# Can EX/RP augment SRI effects?

#### Augmenting SRIs with CBT





### Conclusions

EX/RP can augment SRIs when delivered sequentially.
 *responders are likely to maintain gains at 6 months (Foa et al. 2013)*

• After SRI+EX/RP, some (not all) achieve remission.

How does EX/RP compare to antipsychotic augmentation?

Unpublished data (Simpson, Foa et al., accepted for publication in JAMA-Psychiatry)

### Conclusions

- OCD patients on SRIs with ongoing symptoms should be offered EX/RP prior to antipsychotics.
  - Whether OCD patients on SRIs who fail EX/RP can benefit from antipsychotics remains unknown.

• Alternative medication strategies are needed.

## Summary

- SRIs and EX/RP are each effective treatments for OCD
  - SRIs: 40-60% respond but  $\leq 25\%$  will achieve minimal symptoms
    - Limitations: partial effects, SRI side effects
  - EX/RP: 60-80% respond and ~50% achieve minimal symptoms
    - Limitations: access, adherence, relapse
- OCD patients on SRIs with symptoms should be offered EX/RP.
  After SRI+EX/RP, some (~40%) will achieve remission!
  \*\*\*New study funded by NIMH being conducted in NYC and Philadelphia!
- For nonresponders to SRIs+EX/RP, new treatments are needed.

# What causes OCD?

## What Causes OCD?

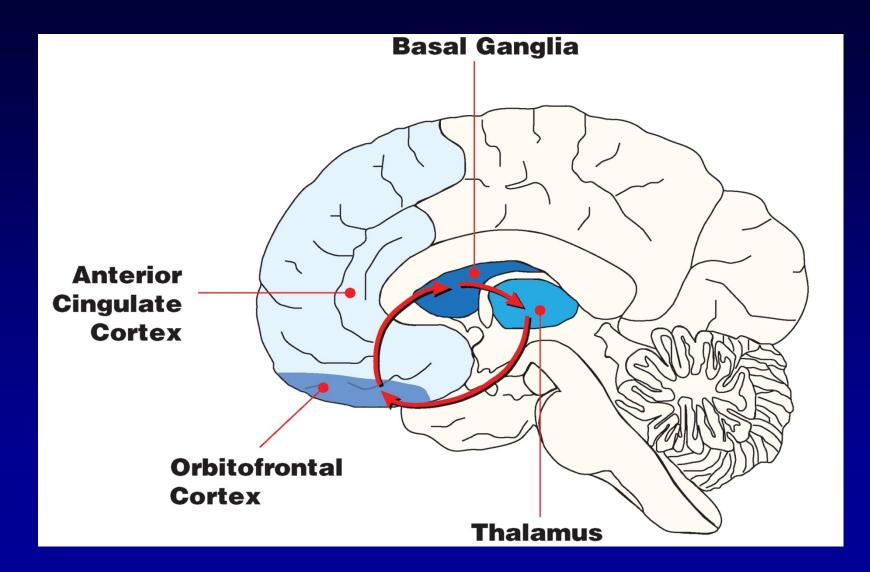
- Pathophysiology (*How does the brain produce O+C?*)
  - Working model: Obsessions and compulsions are caused by specific brain circuits that are not functioning properly.

#### • Etiology (*How did the brain develop this problem?*)

- Genes
- Metabolic causes
- Infectious agents and autoimmune mechanisms
- Neurological insults
- Environmental causes

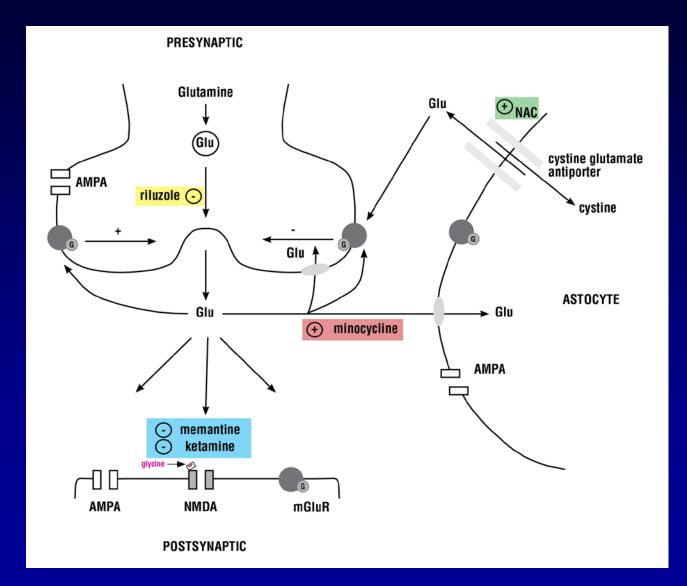
GENES X ENVIRONMENT X DEVELOPMENT

#### **OCD:** A Hyperactive Brain Circuit



Unpublished data (Ahmari et al., accepted for publication in Science)

#### New developments: Glutamate modulators



*Unpublished data* (*Rodriguez et al, under review*)

# **Opportunities and Challenges**

## Current studies for people with OCD

- Clinical research: *for patients of today* 
  - Examining how best to combine pharmacotherapy and psychotherapy
    - Can OCD patients on SRIs who are well after EX/RP safely discontinue their SRI?
  - Testing novel treatment strategies
    - Glutamate modulators (e.g., minocycline, ketamine) \*BBRF/NARSAD\*
    - Transcranial Magnetic Stimulation
- Neurobiological research: *for patients of tomorrow* 
  - Studying brain circuits implicated in OCD \*BBRF/NARSAD\*
  - Identifying shared & distinct brain correlates of behavior across disorders
  - Examining brain mechanisms using animal models \*BBRF/NARSAD\*

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