Obsessive Compulsive Disorder: Diagnosis and Treatment

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- **Zoloft (sertraline)**
- **Geodon (ziprasidone)**

Objectives

- **Describe the current diagnostic criteria for Obsessive Compulsive Disorder (OCD)**
- **Describe the evolution of our understanding of OCD as a neuropsychiatric disorder**
- **Be familiar with the current pharmacological treatments available for OCD, including augmentation strategies**
- **Describe the various psychotherapies that have proven effective in the treatment of OCD**

A Pioneer in OCD Research

Judith L. Rapoport, M.D.
Chief of Child Psychiatry
National Institute of Mental Health

- **Studying OCD since 1972**
- **Her research helped us understand OCD as a common neuropsychiatric disorder with a prevalence in the USA of 2-3%**
- **Onset of symptoms occur as early as age 2**

The Boy Who Couldn't Stop Washing; Rapoport, J; 1989.

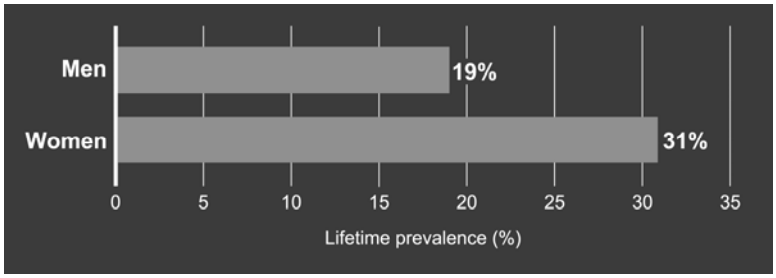
Onset of Symptoms:
Common Childhood Onset

- **Sets OCD apart from most other psychiatric disorders**
- **50% of all adult OCD patients had symptom onset (either obsessions or compulsions or both) in their childhood**
- **About 5% of adults with other psychiatric disorders have symptoms that begin in childhood**

Prevalence of Anxiety Disorders

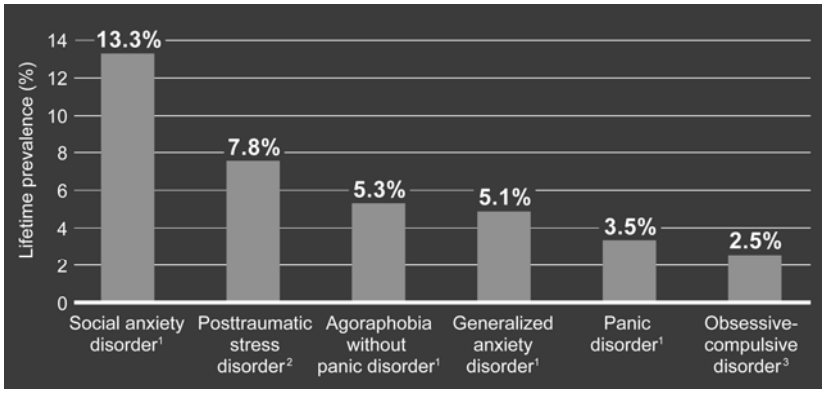
Lifetime Prevalence of Anxiety Disorders

- **Approximately 51 million Americans, or 25% of the population, will suffer from an anxiety disorder[1,2]**



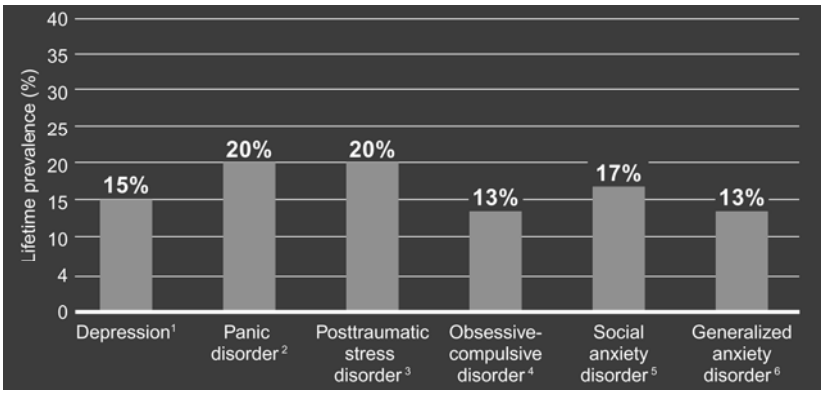
Kessler 1994[1]; US Bureau of the Census.[2]

Lifetime Prevalence of Specific Anxiety Disorders



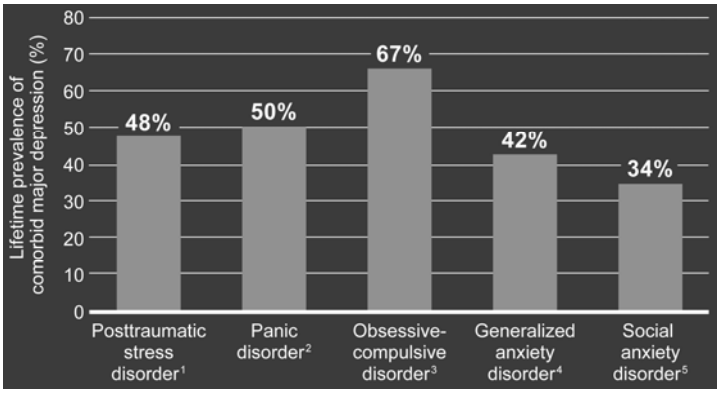
Kessler 1994[1]; Kessler 1995 [2]; *DSM-IV-TR* 2000.[3]

Attempted Suicide in Depression and Anxiety Disorders



Roy-Byrne 2000[1]; Roy 2000 [2]; Davidson 1991[3]; Hollander 1996 [4]; Yonkers 2001[5]; Massion 1993.[6]

Comorbidity of Major Depression in Patients With Anxiety Disorders



Kessler 1995[1]; American Psychiatric Association 1998[2];
Rasmussen 1988[3]; Brawman-Mintzer 1993[4]; Stein 2000.[5]

Obsessive Compulsive Disorder: A Neuropsychiatric Disorder

Epidemiology of OCD

- **Lifetime prevalence is estimated to be 2.5% in the US [1]**
- **Approximately 5 million Americans, or 1 in 40, are affected during their lives [1,2]**
- **Men and women are affected in equal numbers [1]**
- **Onset occurs generally in adolescence or early adulthood[1]**
  - **Childhood or adolescent onset can result in developmental problems [3]**
- **Pattern of disease is chronic waxing and waning [1]**

DSM-IV-TR **2000[1]; US Bureau of the Census[2]; DuPont 1995.[3]**

Epidemiology of Pediatric OCD

- **Prevalence of OCD in children and adolescents is 1%–2.3% [1]**
- **More boys than girls are at risk for developing OCD[1]**
- **Age of onset is earlier for boys than girls[1]**
- **Children of a parent with OCD have a tenfold greater risk of developing OCD[2]**

DSM-IV-TR **2000[1]; Rapaport 1990.[2]**

Quality of Life Issues

- **For the patient**
  - **Social isolation**
    - **Difficulty maintaining relationships (62%)**
    - **Interference with relationships (73%)**
  - **Lost productivity and limited employment opportunities**
- **For the family**
  - **Accommodation of patient's symptoms (88%)**
  - **Global family dysfunction**

OCD—Diagnostic Features

OCD is a chronic illness involving obsessions and/or compulsions that:

- **Cause marked distress**
- **Occupy more than 1 hour a day**
- **Significantly interfere with normal routine, occupational (or academic) functioning, or usual social activities or relationships**
- **Are recognized by the patient as excessive or unreasonable (except in children)**

***DSM-IV-TR* 2000.**

OCD—Diagnostic Features
(cont'd)

Obsessions:

- **Recurrent and persistent thoughts, impulses, or images that are experienced, at some time during the disturbance, as intrusive and inappropriate and that cause marked anxiety or distress**
- **The thoughts, impulses, or images are not simply excessive worries about real-life problems**
- **Involve attempts to ignore or suppress such thoughts, impulses, or images, or to neutralize them with some other thought or action**
- **Recognition that the obsessional thoughts, impulses, or images are a product of one's mind and not imposed by an external force**

***DSM-IV-TR* 2000.**

OCD—Diagnostic Features (cont'd)

Compulsions:

- **Repetitive behaviors (eg, hand washing, ordering, checking) or mental acts (eg, praying, counting, repeating words silently) that the person feels driven to perform in response to an obsession or according to rules that must be applied rigidly**
- **Behaviors or mental acts that are aimed at preventing or reducing distress or preventing some dreaded event or situation; however, these behaviors or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive**

***DSM-IV-TR* 2000.**

OCD—Common Symptoms

Obsessions:

• Contamination	45%
• Pathologic doubt	42%
• Somatic	36%
• Need for symmetry	31%
• Aggressive	28%
• Sexual	26%
• Other	13%
• Multiple obsessions	60%

Rasmussen 1988.

OCD—Common Symptoms

Compulsions:

• Checking	63%
• Washing	50%
• Counting	36%
• Need to ask or confess	31%
• Symmetry and precision	28%
• Hoarding	18%
• Multiple compulsions	48%

Rasmussen 1988.

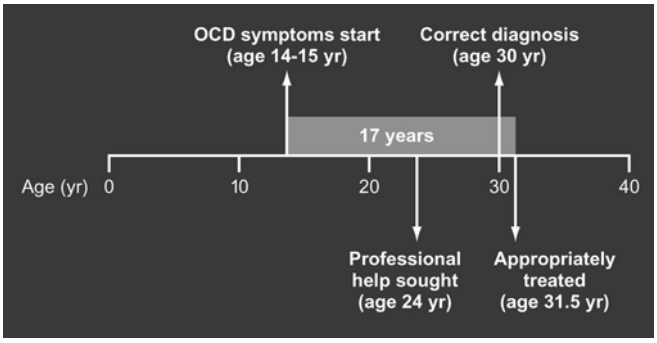
OCD Can Be Difficult to Diagnose

- Some patients may present with physical symptoms, such as dry, chapped skin due to excessive washing [1]
- OCD may often be misdiagnosed as [2]
  - Generalized anxiety disorder (47%)
  - Depression (42%)
  - Family problems (25%)
  - Personality disorder (13%)

Goodman 1999[1]; Hollander 1997.[2]

OCD—Delayed Diagnosis

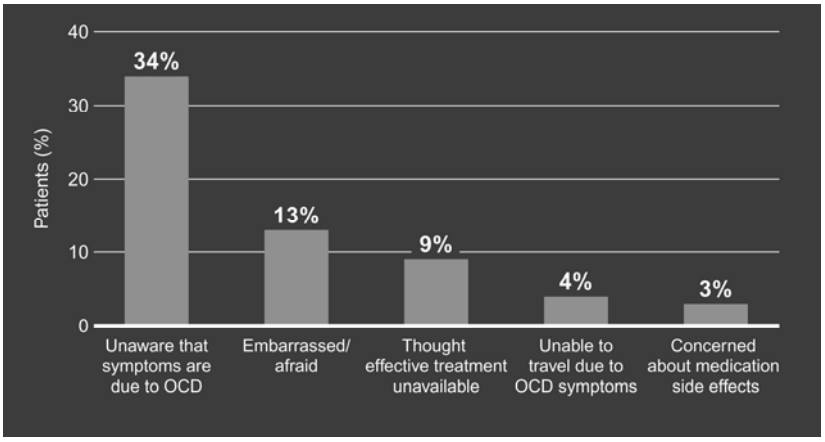
60% of patients with OCD do not seek psychiatric care



Hollander 1997.

OCD—Delayed Treatment

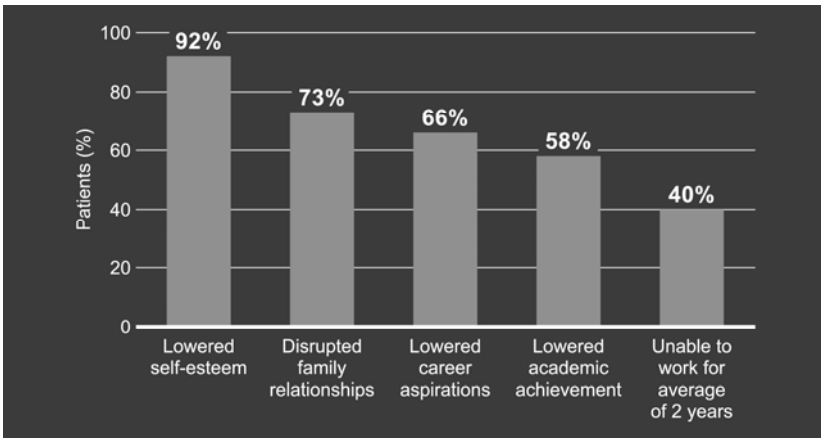
63% of patients with OCD reported delays in seeking treatment



Hollander 1997.

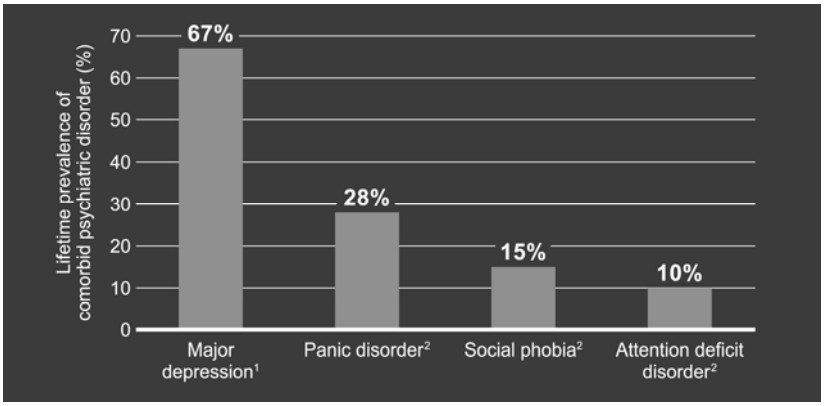
OCD—Impact on Quality of Life

OCD can significantly interfere with social relationships, education, and work [1,2]



DuPont 1995[1]; Hollander 1996.[2]

Comorbidity of Other Psychiatric Disorders in Patients With OCD



Rasmussen 1988[1]; Hollander 1997.[2]

Other Conditions Associated With Pediatric OCD

- **Many children with OCD have a concurrent illness or disorder, including[1]**
  - **Depression**
  - **Another anxiety disorder**
  - **Learning disorders**
  - **Disruptive behavior disorder**
- **Tic disorders, including Tourette's syndrome, may be comorbid with OCD[1]**
- **Other factors, such as strep infections, may be associated with OCD and tic disorders (PANDAS)[2,3]***

PANDAS = pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections.** ***DSM-IV-TR **2000 [1]; Grados 1997 [2]; Swedo 1997. [3]**

Diagnostic Tests for OCD

- **Self-rating scales**
  - **Leyton Obsessional Inventory**
  - **Maudsley Obsessive-Compulsive Inventory**
  - **Compulsive Activity Checklist**
  - **Hamburg Obsession-Compulsion Inventory**
- **Multi-symptomatic checklists**
  - **Symptom Check List 90**
  - **NIMH Global Obsessive-Compulsive Sub-scale**
- **Semi-structured interview**
  - **Yale-Brown Obsessive-Compulsive Scale (Y-BOCS)**

Screening Questions for OCD

- **Do you have to wash your hands excessively?**
- **Do you have to check things over and over?**
- **Do thoughts come into your mind that you have trouble getting rid of, and that may not make sense?**
- **Are there certain behaviors you have to do repeatedly, that may seem silly, but you feel compelled to do?**

Rasmussen SA, Eisen JL; *Psychiatric Ann*.; 1989; 19: 67-73

Obsessive Compulsive Disorder: Pathophysiology

Encephalitis Lethargica

- **A viral encephalitis swept through Europe from 1916 to 1918**
  - **Thousands died**
  - **Thousands remained in a stuporous twilight state, with a Parkinson's-like movement disorder**
  - **Post-encephalitic patients also demonstrated the onset of obsessive and compulsive symptoms**
  - **Basal ganglia was the brain region attacked**

The Boy Who Couldn't Stop Washing; Rapoport, J; 1989.

The Neurologic Basis for OCD

- **OCD symptoms are seen in conjunction with some neurologic disorders**
- **Neuropsychological abnormalities seen with OCD**
- **Structural and functional brain imaging reveal abnormalities**
- **Preferential response to SRIs**
- **Psychosurgical procedures effective in patients with severe OCD**

Trivedi, J Clin Psychiatry, 1996.

"Brain Wound Eliminates Man's Mental Illness"

- **22 y.o. man driven to suicide due to his severe washing compulsions**
- **He shot himself with a gun in his mouth**
- **Bullet lodged in his brain's left frontal lobe**
- **He survived, and his OCD symptoms disappeared**
- **He proceeded to college and led a normal life**

Associated Press; February 24, 1988

PANDAS:

Pediatric Autoimmune Neuropsychiatric Disorders Associated With Streptococcal Infection

- **Most recent literature supports it as an OCD subtype – autoimmune etiology**
- **Presents usually in children**
- **Treat with immunomodulatory therapies**
- **Responds to plasma exchange**
- **Responds to intravenous immunoglobulin**
- **Is antibiotic prophylaxis helpful???**

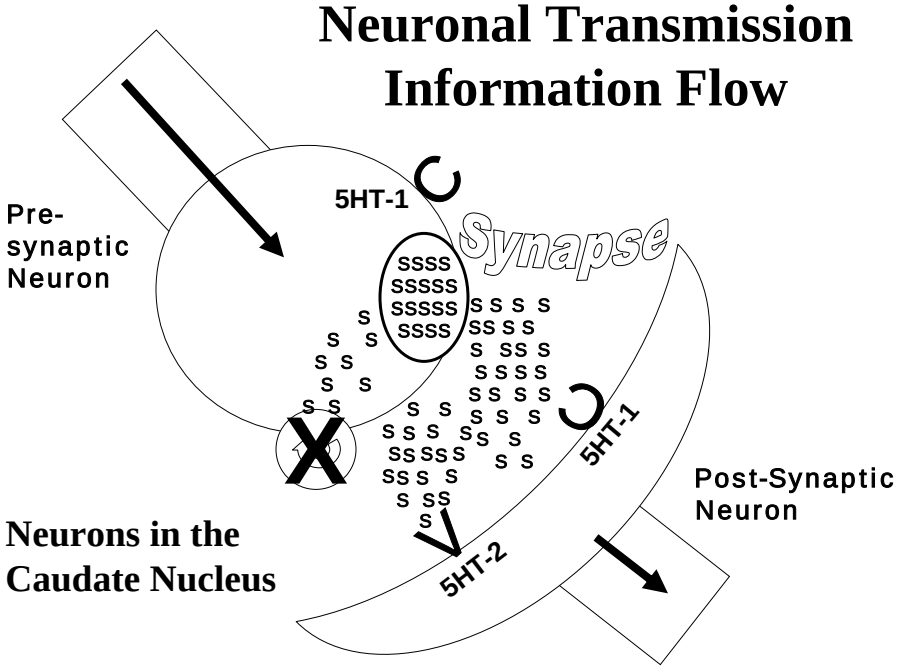
Snider LA, Swedo SE; *J Child Adolesc Psychopharmacol*; 2003; 13 Suppl 1:S81-88.

Neuronal Circuits Implicated in OCD from *in vivo* Neuroimaging Studies

- **Caudate nucleus**
- **Orbitofrontal cortex**
- **Anterior cingulate gyrus**
- **Mediodorsal thalamic nucleus**

Gross-Isseroff R, et al.; *World J Biol Psychiatry*; 2003; Jul; 4(3): 129-134.

Neuronal Transmission Information Flow



OCD:

Pharmacotherapy

SRI FDA Approvals For OCD

- **Clomipramine^ (Anafranil)**
- **Fluoxetine (Prozac)**
- **Sertraline*^ (Zoloft)**
- **Paroxetine (Paxil)**
- **Fluvoxamine^ (Luvox)**

***FDA approved for both acute and chronic treatment (longer than 52 weeks)**
^FDA approved for treatment in children; sertraline down to age 6, and proven safety out to 12 months in children; fluvoxamine down to age 8.

Common Dosages in OCD*

- **Clomipramine (Anafranil) (25-300mg)**
- **Fluoxetine (Prozac) (20-100mg)**
- **Sertraline (Zoloft) (50-250mg)**
- **Paroxetine (Paxil) (20-80mg)**
- **Fluvoxamine (Luvox) (100-600mg)**

***These dosage ranges are higher than the FDA approved upper limit.**

General Pharmacologic Principles

- **Symptom reduction can take 12 or more weeks**
- **Symptoms continue to improve over the first 12 months**
- **A 60-70% symptom reduction is average**
- **Medications are usually prescribed at upper dosage levels**
- **Treatment often is chronic**

SSRI Side Effects to Monitor After Six Months

- **Sexual Dysfunction**
- **Weight Gain**
- **Cognitive/Emotional Dulling**
- **Prolactin Elevation**

Clomipramine also has the usual tricyclic antidepressant side effects

Augmentation Strategies

- **Clonazepam has demonstrated efficacy**
- **Adding an SSRI to clomipramine, or vice versa**
- **Atypical Antipsychotics can provide significant improvement in partial/non-responders**
  - **May need to continue chronically**
  - **83% relapse 2 months after discontinuation of the atypical antipsychotic in one study***

***Maina G, et al.; Int Clin Psychopharmacol.; 2003; Jan; 18(1): 23-28.**

OCD:

Psychotherapy

Psychoanalysis and Psychodynamic Psychotherapies

No symptom improvement

Behavior Therapy

Exposure
and
Response Prevention

Exposure and Response Prevention

- **Expose patient to feared contamination, situation, object, thought, or place (preferably *in vivo*)**
- **Prevent or delay patient from acting on fear with usual behaviors/rituals/compulsions**
- **As time passes without ritual enactment, symptoms of anxiety diminish**
- **Proven as effective as pharmacotherapy**
- **PET Scan changes show same normalization of glucose metabolism that you see with SRIs**

Cognitive Therapy

- **OCD is a disorder of cognition (faulty thoughts)**
  - **Overestimating the importance of thoughts**
  - **Exaggerated responsibility for events**
  - **Need for control over thoughts and actions**
  - **Overestimating consequences**
  - **Belief that anxiety is unacceptable/dangerous**
- **Goal: develop a realistic and flexible viewpoint**
- **Techniques:**
  - **Challenging obsessional thoughts**
  - **Thought stopping**
  - **Challenging negative automatic thoughts**

Cognitive Behavioral Therapy: A Specific Subtype

Cognitive-Biobehavioral Self-Treatment

Developed by Jeffrey M. Schwartz, M.D. at the OCD Research Group at UCLA Medical Center

Cognitive-Biobehavioral Self-Treatment

The Four-Step Self-Treatment Method:

Step 1.	**RELABEL**
Step 2.	**REATTRIBUTE**
Step 3.	**REFOCUS**
Step 4.	**REVALUE**

Schwartz J; Brain Lock; 1996.

Combining Behavior Therapy and Pharmacotherapy

- **Sustains improvement better than either alone**
- **Conveys a greater benefit**
- **Reduces patient discomfort in treatment**
- **Improves compliance with behavior therapy**
- **Improves comorbid depression**

Psychosurgery

- **Reserved for treatment refractory patients**
- **Underutilized due to a past history of outdated procedures that had a high complication/morbidity rate (similar to ECT)**
- **Cingulotomy remains an important and highly effective option for treatment resistant patients with disabling symptoms**
- **Cingulotomy can render a significant improvement in OCD symptoms with few complications and side effects**

Cosgrove GR, Rauch SL; Neurosurg Clin N Am.; 2003; Apr; 14(2):225-235

Conclusions

- **OCD has emerged as a common neuropsychiatric disorder which causes a high degree of morbidity and distress**
- **Multiple etiologies exist, with a clear genetic/inherited component**
- **Neuronal circuits involved have been mapped out to a reasonable degree**
- **Many individuals continue to silently suffer, unaware that their obsessive-compulsive symptoms are a treatable neuropsychiatric disorder**

Conclusions

- **First line pharmacotherapy is with serotonin re-uptake inhibitors**
- **Augmentation with clonazepam or atypical antipsychotics is effective**
- **Exposure and response-prevention, as well as cognitive-biobehavioral self-treatment are as effective as pharmacotherapy**
- **All three of these treatments result in decreased glucose metabolism in OCD implicated neuronal circuits as seen on real-time PET scans**