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OBSESSEIVE COMPULSIVE DISORDER (OCD) – AN UNKNOWN PSYCHIATRIC DISORDER

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ABSTRACT

OCD is a brain based neurobiological disorder. Obsessive–compulsive disorder (OCD) is a psychological disorder that is diagnosed based on the presence of either obsessions or compulsions (although, in most cases, both typically occur). Life time prevalence for ocd has been estimated as 1.6% in the general population and 2-4% in the pediatric population. The onset of illness is earlier in men than in women. Abnormal functioning of several neurotransmitter systems, including norepinephrine (NE), γ - aminobutyric acid (GABA), glutamate, dopamine (DA), and serotonin (5-HT) may affect the manifestations of anxiety disorders. Antipsychotics are sometimes used to augment the effect of an SSRI. There is evidence for haloperidol, risperidone and aripiprazole.

KEYWORDS: Neurobiological disorder, Obsessive compulsive disorder (OCD), Anxiety disorder, SSRIs (Selective Seretonin Reuptake Inhibitors).

INTRODUCTION

Intrusive obsessive thoughts and compulsive ritualistic behaviours which cause marked distress in individuals experiencing them.[1]

Obsessive–compulsive disorder (OCD) is a psychological disorder that is diagnosed based on the presence of either obsessions or compulsions (although, in most cases, both typically occur). In the first edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-I; American Psychiatric Association, 1952), OCD was called "obsessive compulsive reaction." In DSM-II (American Psychiatric Association, 1968), OCD was called "obsessive compulsive neurosis." With the publication of the DSM-III (American Psychiatric Association, 1980), however, OCD as we now understand it was named and described. The definition only changed slightly in DSM-III-R (American Psychiatric Association, 1987) and in DSM-IV (American Psychiatric Association, 1994), and was not changed at all in the DSM-IVTR (American Psychiatric Association, 2000). In DSM-5 (American Psychiatric Association, 2013), however, OCD was removed from the anxiety disorders section and placed into a new, separate section called "obsessive–compulsive and related disorders.[2]

TYPICAL OCD SYMPTOMS

Common Obsessions

Recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress.

Table no. 1: Common obsessions in OCD.

Examples
• Contamination fears of germs, dirt, etc.
• Imagining having harmed self or others
• Imagining losing control of aggressive urges
• Intrusive sexual thoughts or urges
• Excessive religious or moral doubt
• Forbidden thoughts
• A need to have things "just so"
• A need to tell, ask, confess.

Common Compulsion

1. Repetitive behaviours, mental acts that the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly.[3]

Table no. 2: Commom Compulsions in OCD.

Examples
• Washing • Repeating • Checking • Touching • Counting • Ordering/arranging • Hoarding • Praying

EPIDEMIOLOGY

- Life time prevalence for ocd has been estimated as 1.6% in the general population and 2-4% in the pediatric population.
- Age and gender influences the epidemiology of ocd.
- The onset of illness is earlier in men than in women. OCD begins early in life with 20% of cases occurs in childhood, 29% in adolescence, and 49% by age of 20 years. first degree relatives of patients with OCD is reported with high rates of other anxiety disorders.[4]

CLASSIFICATION

The 2 primary classifications used for mental health diagnoses are the DSM and the International Classification of Diseases (ICD). The essential differences between these 2 systems are that ICD is the official world classification of mental disorders endorsed by the World Health Organization, while the DSM is a United States (US) based system, but followed in many other countries too.[5]

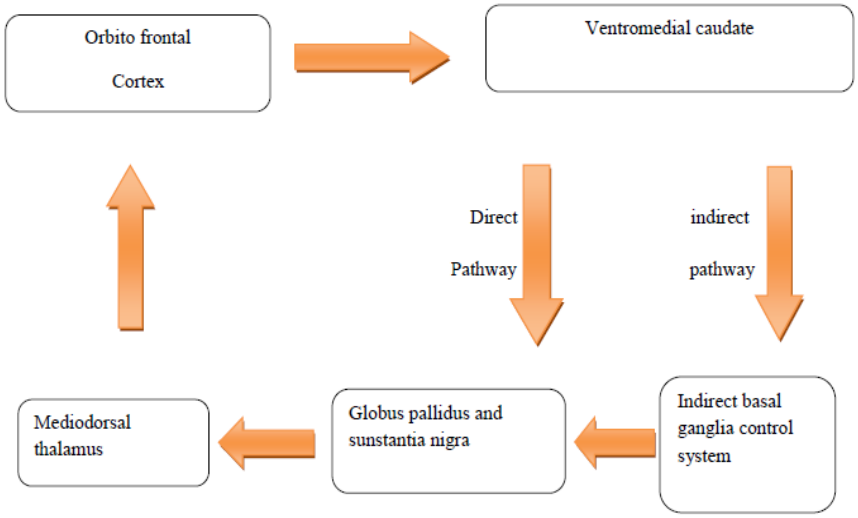
PATHOPHYSIOLOGY

OCD is a brain based neurobiological disorder abnormal function in several neurotransmitter systems, including nor epinephrine (NE), γ -amino butyric acid (GABA), glutamate, dopamine (DA), and serotonin (5-HT) may affect the manifestations of anxiety disorders.

Theories of pathogenesis include:

- The neuroendocrine theory.
- The sociobiological theory.
- The cognitive behavioural model.

MECHANISM OF DIRECT AND INDIRECT PATHWAYS



TIOLOGY AND PATHOPHYSIOLOGY OF OCD

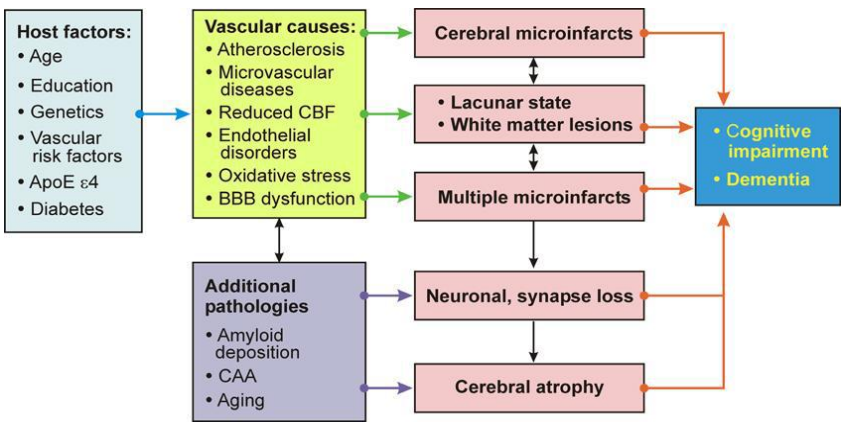


Figure 1: Etiology and pathophysiology of OCD.

Assessment and Screening Questions for Obsessive-Compulsive Disorder

People with OCD often do not volunteer their symptoms spontaneously and it is likely that there is under-diagnosis of this condition. The Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) and checklist should be used to record the severity and lifetime presence of specific symptoms. Assessment should include the following elements:[6,7]

Identify cases - for patients at risk of OCD (depression, anxiety, BDD, substance misuse or eating disorder), ask the following questions:

- Do you wash or clean a lot?
- Do you check things a lot?
- Is there any thought that keeps bothering you that you would like to get rid of but cannot?
- Do your daily activities take a long time to finish?
- Are you concerned about putting things in a special order or are you very upset by mess?
- Do these problems trouble you?

DIAGNOSTIC CRITERIA FOR OCD

Either obsessions or compulsions (or both) must be present on most days for a period of at least two weeks.

- They are acknowledged as originating in the mind of the patient and are not imposed by outside persons or influences.[8]
- They are repetitive and unpleasant and at least one obsession or compulsion must be present that is acknowledged as excessive or unreasonable.
- The subject tries to resist them (but if very long-standing, resistance to some obsessions or compulsions may be minimal). At least one obsession or compulsion must be present which is unsuccessfully resisted.
- Carrying out the obsessive thought or compulsive act is not in itself pleasurable.
- The obsessions or compulsions cause distress or interfere with the subject's social or individual functioning, usually by wasting time.[9]

TREATMENT

The usual treatment for OCD is:

- A combination of CBT plus an SSRI antidepressant medicine.
- Cognitive behavioural therapy (CBT); or
- Medication, usually with an SSRI antidepressant medicine; or
- **CBT (Cognitive behavioural therapy):** CBT is a type of specialist talking treatment (a specialist psychological therapy). It is probably the most effective treatment for **OCD.**

NON-PHARMACOLOGICAL THERAPY

CBT is the treatment of choice for mild OCD in both adolescents and adults. In the management of OCD, CBT involves exposure plus response prevention combined with cognitive therapy. When available, CBT should be offered to every OCD patient.[10]

Cognitive therapy is based on the idea that certain ways of thinking can trigger, or fuel, certain mental health problems such as OCD. The therapist helps you to understand your current thought patterns. In particular, to identify any harmful, unhelpful and false ideas or thoughts which you have. Also, to help you're thought patterns to be more realistic and helpful. Two-thirds to three-fourths of patients who continue in CBT therapy generally respond.[11]

CBT is a mixture of the two where you may benefit from changing both thoughts and behaviours. This is the most common treatment for OCD. A particular variation of CBT called exposure and response prevention is often used for OCD. For example, say you have a compulsion to keep washing your hands in response to an obsessional fear about contamination with germs. In this situation the therapist may gradually expose you to contaminated objects. But, the therapist prevents you from doing your usual compulsion (repeated hand washing) to ease your anxiety about contamination. Instead, the therapist teaches you how to control any anxiety in other ways - for example, by using deep breathing techniques. In time, you should become less anxious about contamination and feel less need to wash your hands so much.[9]

TREATMENT ALGORITHM

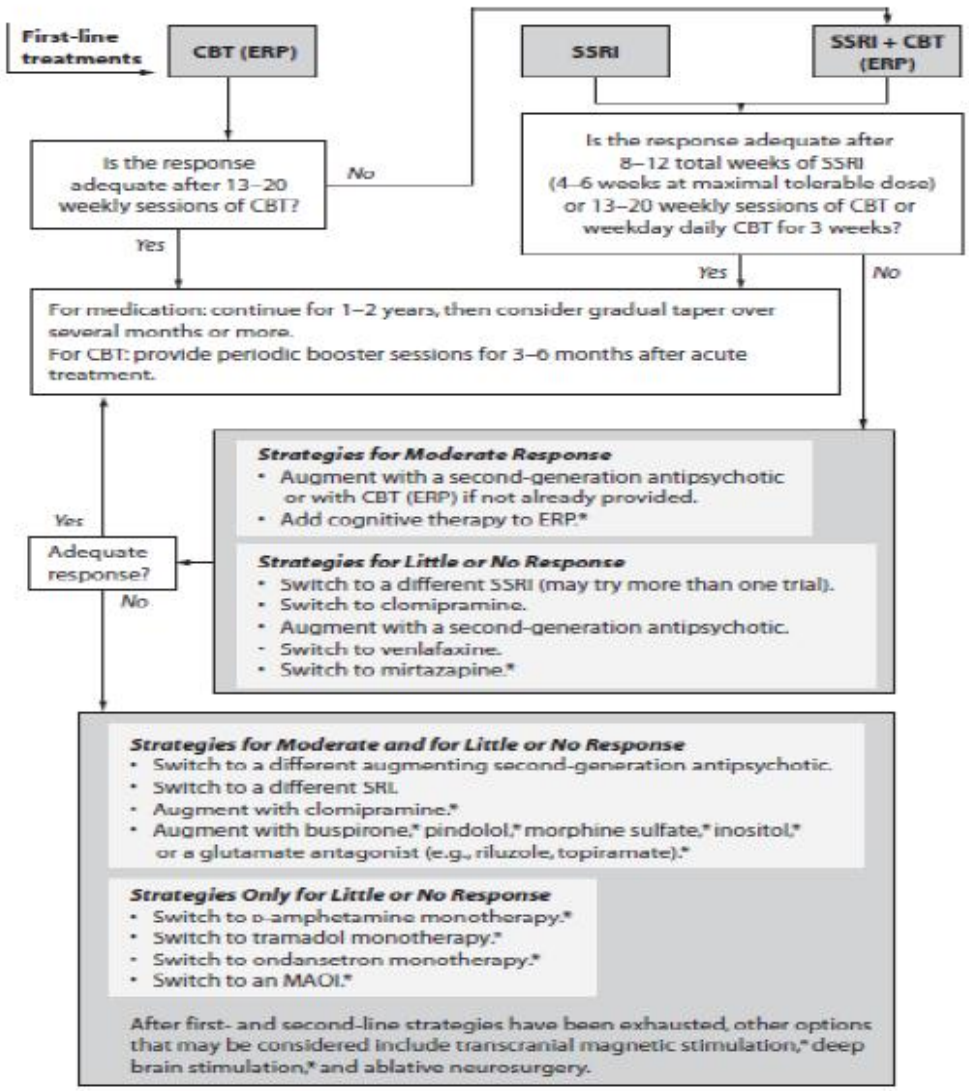


Figure 2: Algorithm for the Treatment of Obsessive-Compulsive Disorder (OCD) *Note*. "Moderate response" means clinically significant but inadequate response.

*Treatment with little supporting evidence (e.g., one or few small trials or case reports or uncontrolled case series).
CBT=cognitive-behavioral therapy; ERP=exposure and response prevention; MAOI=monoamine oxidase inhibitor; SRI=serotonin reuptake inhibitor; SSRI=selective serotonin reuptake inhibitor.

PHARMACOLOGICAL THERAPY

The SSRIs are considered to be the drugs of choice in the treatment of OCD. Drug therapy is reserved for patients with moderate to severe symptoms. Antidepressants may be combined with CBT or used alone in adults with moderate to severe symptoms.

ANTIDEPRESSANT THERAPY

Serotonergic Antidepressants

The only medications consistently demonstrating efficacy in controlled trials are the TCA clomipramine and the SSRIs fluoxetine, fluvoxamine, paroxetine, and sertraline. 65%to 70% of patients with OCD respond to their first SSRI treatment, and up to 90% ultimately respond with additional drug trials. Improvement in symptoms is incomplete, and ranges from 25% to 60%. Most patients continue to have symptoms that limit their functioning.[12] Obsessive-compulsive symptoms improve over a 4- to 10-week treatment period.[13]

The SSRIs and clomipramine inhibit 5-HT reuptake into the presynaptic neuron. Inhibiting reuptake of 5-HT makes more 5-HT available to postsynaptic receptors and reduces formation of the 5-HT metabolite 5-hydroxyindoleacetic acid.[13]

Tricyclics

Clomipramine is rapidly absorbed following oral administration. Maximum plasma concentrations occur within 2 hours. It is highly protein-bound (>90%) in the blood and has a half-life of 19 to 37 hours.[14]The drug is

metabolized to desmethylclomipramine, which is pharmacologically active.[14]

Alternative drug therapy

If there is no response or partial response to combined CBT and three antidepressant trials (clomipramine), augmentation with another drug and more intensive CBT can be tried. 5-HT enhancers and agents involving other neurotransmitter systems can be initiated, but controlled augmentation trials have been failed. Because of these differences in results, it is suggested that attempts at augmentation be conducted with the use of rating scales or careful symptom severity assessment so that the benefit of the added drug therapy is clearly evident.[15]

When buspirone is used as augmentation therapy, the initial dose is 5 mg three times daily, and the target dose should be 60 to 90 mg/day.[16]

DAreceptor antagonists alone are not effective in the treatment of the core symptoms of OCD. Haloperidol was significantly more effective than placebo in reducing obsessive-compulsive symptoms. Furthermore, those with a concurrent chronic tic disorder demonstrated a preferential response to the fluvoxamine-haloperidol combination.[17]

The recommended initial dose of haloperidol is 0.5 mg, and the target dose is 0.25 to 6 mg/day.52 Patients should be nonresponsive to at least two antidepressant trials (including clomipramine) before haloperidol is tried because of the risk of tardive dyskinesia and other movement disorders with long-term use.[15]

Table No. 3: Treatments for OCD.[18]

Drug generic Name	Drug trade name	Starting dose (mg/day)	Target dose (mg/day)	Adverse effects
First line drugs SSRIs(Selective Seretonin Reuptake Inhibitors) Citalopram	CELEXA	20	40	Common: Insomnia, Anxiety, GI upset, Sexual, Dizziness, Sedation Rare: Rash, Headache *QT prolongation reported at doses higher than 40 mg daily
Escitalopram	LEXAPRO	10	20	
Fluoxetine	PROZAC	20	80	
Fluvoxamine	LUVOX	50	300 (75–100 With clomipramine)	
Paroxetine	PAXIL	20	60	
Sertraline	ZOLOFT	50	200	
Tricyclics Clomipramine	ANAFRANIL	25	250 (50–100 with fluvoxamine)	Common: Anticholinergic s/e, Dizziness, Sexual, Weight gain, Tremor Rare: EKG changes, Seizures**
Adjunctive/second-line agents Buspirone	BUSPAR	10 (divided bid)	10–45 (divided bid)	Common: Dizziness, Headache, Nausea Rare: Sedation,
Benzodiazepines Clonazepam	KLONOPIN	0.25–0.5 (OD or Divided BID)	0.5–3 (OD or Divided BID)	Common: Sedation, Tolerance Rare: Impaired Cognition, Disinhibition Ataxia
Lorazepam	ATIVAN	0.5 (divided BID-TID)	0.5–4 (divided BID-TID)	
Atypical antipsychotics Risperidone	RISPERDAL	1 (od or divided bid)	0.5–6	Common: Weight gain, Dizziness, Sedation, Constipation, Rare: Hyperglycaemia, Elevated prolactin, Extrapyramidal symptoms

Olanzapine	ZYPREXA	5	5–20 (OD or divided BID)	Common: Sedation, Extrapyramidal symptoms Rare: EKG changes, Tardive Dyskinesia, Neuroleptic Malignant Syndrome
Quetiapine	SEROQUEL	50 (divided BID)	500 (divided BID)	
Aripiprazole	ABILIFY	10	10–30	
Ziprasidone	GEODON	40 (divided BID)	40–160 (divided BID)	
Topical antipsychotics Haloperidol Pimozide	HALDOL ORAP	0.5 1	0.5–10 1 –3	

MANAGEMENT IN CHILDREN[18,19]

- **Mild dysfunction:** offer guided self-help along with support and information for the family or carers. If this fails, or if it is unavailable locally, refer to Children and Adolescents Mental Health Services (CAMHS).
- **Moderate-to-severe:** refer to CAMHS. Psychological therapy will be with CBT/ERP as for adults but should involve family/carers. It may be individual or group therapy, depending on the preference of the patient. CBT has been shown to be effective in children for OCD and other associated disorders.(8) Furthermore, CBT may be more effective than SSRI treatment.
- If psychological treatment fails, factors which might require other interventions may be involved - e.g., co-existence of co morbid conditions, learning disorders, persisting psychosocial risk factors such as Family.
- **Pharmacotherapy:** in children over the age of 8, adding an SSRI might be appropriate, following a multidisciplinary review. In children under the age of 18, an SSRI should only be prescribed after assessment by a specialist psychiatrist for this age group.

Treatment failures[20]

The following are in conjunction with specialist assessment and multidisciplinary review:

- Try another SSRI.
- Consider change to clomipramine; however, there is a greater tendency to produce adverse effects. Do baseline ECG and check BP. Start with a small dose, titrate according to response and monitor regularly.[21]
- Antipsychotics are sometimes used to augment the effect of an SSRI. There is evidence for haloperidol, risperidone and aripiprazole.
- Intensive inpatient therapy or residential/supportive care may occasionally be needed for people with chronic severe dysfunction.
- Neurosurgery may be considered for severely ill patients who do not respond to CBT and medication. Risks, benefits, long-term postoperative management and patient selection should all be carefully considered before embarking on treatment. Patient selection can be improved by the use of neuroimaging.[22]
- Anterior capsulotomy is the traditional procedure.
- Deep brain stimulation is currently being explored and has shown promise.[23,24]

CONCLUSION

- Recurrent and persistent thoughts are called obsessions & Repetitive behaviours, mental acts that the individual feels are compulsions.
- Approximately one-third to one-half of adults with OCD develops the disorder in childhood, the mean onset for OCD in adults occurs between the ages of 22 and 35 years.
- This disorder appears to be more common in males.
- The Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) and checklist should be used to record the severity and lifetime presence of specific symptoms.[19]
- Abnormal function in several neurotransmitter systems, including norepinephrine (NE),γ - aminobutyric acid (GABA), glutamate, dopamine (DA), and serotonin (5-HT) may affect the manifestations of anxiety disorders.
- CBT alone may be preferable for those who are opposed to taking medications, or who are very young, pregnant, nursing, or medically ill patients & an initial trial with a SSRI alone may be optimal like citalopram.

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