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MANAGEMENT OF OBSESSIVE-COMPULSIVE DISORDER: A REVIEW AND FUTURE PRESPECTIVE

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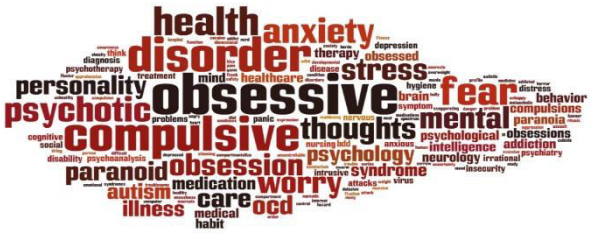
ABSTRACT

Obsessive-compulsive disorder (OCD) is a common, often debilitating disorder characterized by the presence of obsessions and compulsions. Obsessions are repetitive thoughts or images which are experienced as intrusive and unwanted; they cause marked anxiety and distress. Compulsions (also known as rituals) are repetitive behaviors or mental acts that individuals with OCD perform in an attempt to decrease their anxiety. Patients tend to hide their symptoms due to shame; the amount of time between onset of symptoms and appropriate treatment is often many years. The disorder likely results from several etiological variables; functional imaging studies have consistently shown hyperactivity in the orbitofrontal cortex, anterior cingulate, thalamus, and striatum. The mainstays of treatment include cognitive-behavioral therapy in the form of exposure and response prevention (ERP) and serotonin reuptake inhibiting medications. Several pharmacological augmentation strategies exist for treatment-resistant OCD. Various future directions are needed for the development of treatment of OCD.

Keywords: Obsessive Compulsive-Disorder, exposure and response prevention, Yale-Brown Obsessive-Compulsive Scale, cognitive behavioral therapy, serotonin reuptake inhibitor.

INTRODUCTION

- **What is OCD?**
- Considered one of the most debilitating psychiatric illnesses, obsessive-compulsive disorder (OCD) is characterized by distressing thoughts and repetitive behaviors that are interfering, time-consuming, and difficult to control. Historically, OCD was thought to be untreatable, as people with the disorder did not respond that well to traditional psychodynamic psychotherapy, medication, or available behavioral interventions such as systematic desensitization or aversion therapy.
- OCD is an often debilitating disorder characterized by the presence of obsessions and compulsions. Obsessions are repetitive thoughts or images which are experienced as intrusive and unwanted; they cause marked anxiety and distress. Compulsions (also known as rituals) are repetitive behaviors or mental acts that individuals with OCD perform in an attempt to decrease their anxiety.



AIM AND OBJECTIVES

AIM: To study about management of OCD and its Future Perspectives

1. Know the definition of obsessive-compulsive disorder (OCD) and be familiar with its signs and symptoms.
2. Understand the biological and environmental contributions to the development of OCD.

3. Be aware of the comorbidities associated with OCD.
4. Know the therapies available for treating OCD, both cognitive and pharmacologic.
5. Know the future direction and future aspects about OCD.

EPIDEMIOLOGY: PREVALERANCE, COMORBIDITY

OCD is observed in males and females in approximately equal proportions.

Prevalence may be as high as 1% to 3% in adults and 1% to 2% in childhood/ adolescence (especially just before the onset of puberty).

The mean age of onset is 19.5 years; males tend to have an earlier age of onset than females. Onset after age 35 is rare but can occur.

Many adult sufferers report symptoms appearing for the first time in childhood or adolescence.

If OCD goes untreated, the course is typically chronic with waxing and waning symptoms, and remission rates are low.

ETIOLOGY AND PATHOPHYSIOLOGY

1.Genetics:

Genetic factors in the etiology of OCD have been implicated by studies of familial patterns of inheritance, twin studies, and genetic segregation and linkage analyses. Twin studies estimate heritability to be in the range of 45% to 65% on the basis of genetic factors. According to this monozygotic twins are much more likely to exhibit OCD symptoms than dizygotic twins. It has been argued that there is an autosomal dominant mode of transmission.

2.Neuroboilogical Factors:

Evidence for neurobiologic factors in the etiology of OCD has been accumulating during the past several decades. Structural and functional brain-imaging studies in both adults and children point consistently to dysregulation of frontal corticostriatal-thalamic circuits in the pathophysiology of OCD. These circuits are modulated by serotonergic, dopaminergic, and glutamatergic neurons. It is assumed that any factor affecting the functioning of these circuits could contribute to the pathogenesis of OCD. Accordingly, symptoms of OCD have been shown to be associated with brain lesions affecting these circuits

3. Autoimmune:

A controversial hypothesis is that some cases of rapid onset of OCD in children and adolescents may be caused by a syndrome connected to **Group A streptococcal infections**, known as **Pediatric Autoimmune Neuropsychiatric Disorders** associated with streptococcal infections **(PANDAS**).

SIGNS & SYMPTOMS

OCD can present with a wide variety of symptoms. Certain groups of symptoms usually occur together. These groups are sometimes viewed as dimensions or clusters that may reflect an underlying process.

Obsession symptoms:

OCD obsessions are repeated, persistent and unwanted thoughts, urges or images that are intrusive and cause distress or anxiety.

Obsessions often have themes to them, such as:

- Fear of contamination or dirt
- Needing things orderly and symmetrical
- Aggressive or horrific thoughts about harming yourself or others
- Unwanted thoughts, including aggression, or sexual or religious subjects

Compulsion symptoms:

OCD compulsions are repetitive behaviors that you feel driven to perform. These repetitive behaviors or mental acts are meant to prevent or reduce anxiety related to your obsessions or prevent something bad from happening.

As with obsessions, compulsions typically have themes, such as:

- Washing and cleaning
- Checking
- Counting
- Orderliness
- Following a strict routine
- Demanding reassurances

Yale-Brown Obsessive Compulsive Scale (Y-BOCS):

The standard assessment tool for OCD, the Yale-Brown Obsessive Compulsive Scale (Y-BOCS).

This scale was designed by Wane K. Goodman and his colleagues, is used extensively in research and clinical practice to both determine severity of OCD and to monitor improvement during treatment. This scale, which measures obsessions separately from compulsion, specifically measures the severity of symptoms of obsessive–compulsive disorder without being biased towards the type of content of obsessions or compulsions present.

Obsessive-Compulsive Test - Yale Brown OCD Scale YBOCS

	(0)	(1)	(2)	(3)	(4)
Obsessions are frequent, unwelcome, and intrusive thoughts.					
1. How much time do you spend on obsessive thoughts?	None	0-1 hrs/day	1-3 hrs/day	3-8 hrs/day	More than 8 hrs/day
2. How much do your obsessive thoughts interfere with your personal, social, or work life?	None	Mild	Definite but manageable	Substantial interference	Severe
3. How much do your obsessive thoughts distress you?	None	Little	Moderate but manageable	Severe	Nearly constant, Disabling
4. How hard do you try to resist your obsessions?	Always try	Try much of the time	Try some of the time	Rarely try. Often yield	Never try. Completely yield
5. How much control do you have over your obsessive thoughts?	Complete control	Much control	Some control	Little control	No control

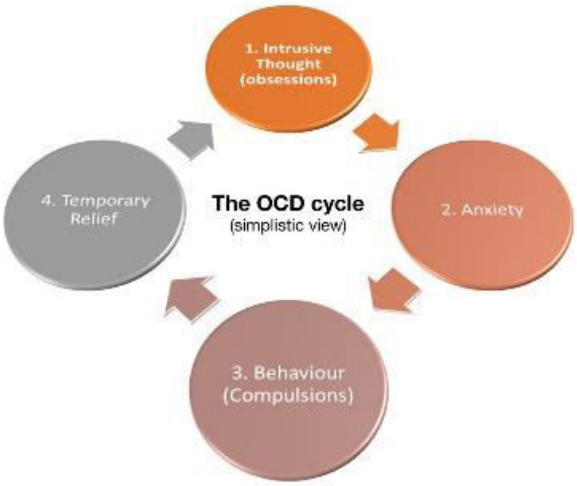
Compulsions are repetitive behaviors or mental acts that you have a strong urge to repeat that are aimed at reducing your anxiety or preventing some dreaded event.					
6. How much time do you spend performing compulsive behaviors?	None	0-1 hrs/day	1-3 hrs/day	3-8 hrs/day	More than 8 hrs/day
7. How much do your compulsive behaviors interfere with your personal, social, or work life?	None	Mild	Definite but manageable	Substantial interference	Severe
8. How anxious would you feel if you were prevented from performing your compulsive behaviors?	None	Little	Moderate but manageable	Severe	Nearly constant, Disabling
9. How hard do you try to resist your compulsive behaviors?	Always try	Try much of the time	Try some of the time	Rarely try. Often yield	Never try. Completely yield
10. How much control do you have over your compulsive behaviors?	Complete control	Much control	Some control	Little control	No control

DIAGNOSIS

Formal diagnosis may be performed by a psychologist, psychiatrist, clinical social worker, or other licensed mental health professional. To be diagnosed with OCD, a person must have obsessions, compulsions, or both, according to the Diagnostic and Statistical Manual of Mental Disorders (DSM). The Quick Reference to the 2000 edition of the DSM states that several features characterize clinically significant obsessions and compulsions. Such obsessions, the DSM says, are recurrent and persistent thoughts, impulses or images that are experienced as intrusive and that cause marked anxiety or distress.

It's sometimes difficult to diagnose OCD because symptoms can be similar to those of obsessive-compulsive personality disorder, anxiety disorders, depression, schizophrenia or other mental health disorders. And it's possible to have both OCD and another mental disorder.

This simple **OCD cycle image** is helpful to understand the four basic aspects of OCD. The actual process of OCD is far more complex, and not as straight forward as the OCD cycle image depicts, but we like this OCD cycle image for providing a simple illustration of four of the main elements of OCD.



TREATMENT

The treatment for OCD includes psychotherapy in the form of CBT & ERP and medication management, most commonly with Serotonin Reuptake Inhibitors, or SRIs. The initial treatment choice depends on illness severity.

1.PSYCHOTHERAPY:

A form of psychotherapy called "Cognitive Behavioral Therapy"(CBT) and psychotropic medications are first-line treatments for OCD.

The specific technique used in CBT is called "Exposure and Response Prevention"(ERP) which involves teaching the person to deliberately come into contact with the situations that trigger the obsessive thoughts and fears ("exposure"), without carrying out the usual compulsive acts associated with the obsession ("response prevention"), thus gradually learning to tolerate the discomfort and anxiety associated with not performing the ritualistic behavior. This treatment includes providing psychoeducation about the illness and the ERP process.

2.PHARMACOTHERAPY:

The medications most frequently used are the **"Selective Serotonin Reuptake Inhibitor" (SSRIs)**.

Five compounds have FDA approval for the treatment of OCD: **clomipramine** (a tricyclic antidepressant) and four SSRIs (**fluoxetine, fluvoxamine, paroxetine, and sertraline**). A true trial of an SSRI in OCD includes at least a moderate dose for at least 12 weeks.

Serotonin Reuptake Inhibitor	Starting (mg)	Usual Target (mg)	Usual Maximum (mg)	Occasional (mg)
Clomipramine	25	100-250	250	---------
Escitalopram/Citalopram	10	20	40	60
Fluoxetine	20	40-60	80	120
Fluvoxamine	50	200	300	450
Paroxetine	20	40-60	60	100
Sertraline	50	200	200	400

Adult selective serotonin reuptake inhibitor dosing guidelines for OCD

- **Augmentation of Serotonin Reuptake Inhibitors with Antipsychotics:**

If an individual does not respond to initial SSRI treatment or exhibits a partial response, he or she may benefit from augmentation of the SSRI with an antipsychotic medication. The antipsychotic drugs that have evidence for their use include **haloperidol, risperidone,** and **aripiprazole**; less evidence exists for the use of quetiapine or olanzapine. A meta-analysis suggests that when compared to initiating antipsychotic

augmentation before 12 weeks of SRI treatment, over 25% more patients will respond with a longer duration of the initial SRI treatment.

- **Augmentation of Serotonin Reuptake Inhibitors with Other Agents:**

A different augmentation strategy that targets the serotonin system includes augmenting SRIs with **5-HT_3 antagonists**. Preliminary evidence exists for **ondansetron** and **granisetron**. In fact, an additional recent study of ondansetron augmentation of SRIs found that 12/21 (57%) of patients responded to ondansetron augmentation initiated at 0.25 mg twice a day for 2 weeks, titrated to 0.5 mg twice a day for an additional 10 weeks.

3.RADIO/NEUROSURGICAL PROCEDURE:

For cases that are documented to be extremely severe, not responding to multiple therapeutic interventions, gamma knife radiosurgery and deep brain stimulation have been used. Gamma knife radiosurgery was used in OCD prior to deep brain stimulation. It is not FDA-approved and consists of anterior capsulotomy, limbic leucotomy, and cingulotomy. Deep brain stimulation is now also an option as it has received a "Humanitarian Device Exemption" from the FDA for severe, intractable OCD. To date, a relatively small number of patients have had the procedure, and the targets and programming paradigms are not standardized. Some targets include the nucleus accumbens, ventral internal capsule, and ventral striatum.

FUTURE PRESPECTIVES

Although the treatment of OCD is remarkably advanced compared to 30 years ago, there are a number of areas where improvements can be made. First, treatment dissemination, particularly for CBT and EX/RP, remains an issue. While reasons for this are many, certain steps can and should be undertaken to improve dissemination. For instance, efforts have been made to incorporate technology into the treatment of adult OCD with a number of successes (for a review see), and there are increasing efforts to extend these findings into the realm of pediatric OCD. As educational efforts aimed at training new mental health practitioners alone are not sufficient, dissemination of both the safety and effectiveness of exposure-based therapies to both the general public and existing, already licensed mental health clinicians (psychiatrists, psychologists, counselors, and social workers) must be made a priority.

Second, although many patients respond to first-line interventions to some degree, partial response is frequent with many continuing to exhibit residual OCD symptoms, particularly to medication monotherapy. Pharmacological treatment augmentation options remain limited and under-researched. One promising approach involves targeting the extinction learning core to EX/RP with d-cycloserine, a partial agonist at the NMDA receptor in the amygdala. Preliminary results in adults and youth with OCD show promising results and suggest the need for further trials and refinement of methodology and dosage. In terms of psychotherapy augmentation, the primary issue in need of addressing would be the high drop-out rate. Therapy may need to be augmented with some sort of motivational enhancement module for those unwilling or too distressed to engage in exposures, or

new strategies for exposure-reluctant patients may need to be developed.

Third, given the high comorbidity rates seen in persons with OCD, it is important to examine what impact that has on treatment. Although a substantial body of literature has shown that for most anxiety disorders comorbidity does not diminish the impact of treatment (see for a review), research on OCD is mixed. Having primary OCD with comorbid PTSD has been found to decrease response rate, while OCD and comorbid GAD was shown to increase dropout rates and decrease treatment response. In contrast, others studies have shown no negative impact on OCD treatment from comorbid anxiety problems in adults or children. As such, both more research on how certain comorbidity patterns impact treatment and the most optimal therapeutic methods to address the differential patterns should be conducted. Such methods could include novel combinations of pre-existing treatments (e.g., combining parent management training with CBT for youth with OCD and disruptive behavior or the use of motivational enhancement techniques.

SUMMARY

OCD is an often debilitating condition that is treatable. Unfortunately, many patients hide their symptoms due to shame, and much misdiagnosis and provision of ineffective treatment exists. Patients often suffer either in silence or in ineffective treatment for many years. Even with appropriate treatment, symptoms can wax and wane. Initiation and continuation of appropriate treatment, the mainstays of which are ERP and SRIs, is crucial. ERP is recommended as first-line treatment for mild to moderate symptoms as measured by the Y-BOCS. For more severe symptoms or when ERP is not available, an SRI is recommended as first-line treatment as SRIs are better tolerated than clomipramine, although clomipramine appears to be more effective than the SRIs. Several pharmacological augmentation strategies exist, and radio/neurosurgical procedures are reserved for documented severe, treatment-refractory cases.

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