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OCD: A Ruminative Disorder

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ABSTRACT

Obsessive-compulsive disorder (OCD) has moved from an almost untreatable, life-long psychiatric disorder to a highly manageable one. This is a very welcome change to the 1%-3% of children and adults with this disorder as, thanks to advances in both pharmacological and psychological therapies. Researchers think brain circuits may not work properly in people who have OCD. It tends to run in families. The symptoms often begin in children or teens. Treatments include therapy, medicines, or both. Cognitive behavioral therapy is useful for treating OCD. This article is review on obsessive compulsive disorder. Areas covered include: types of OCD, etiology, risk factors, pathophysiology, clinical signs and symptoms, diagnosis and treatment.

INTRODUCTION:

OCD is characterized by intrusive, troubling thoughts (obsessions) and repetitive, ritualistic behaviors (compulsions) which are time consuming, significantly impair functioning and/or cause distress. When an obsession occurs, it almost always corresponds with a massive increase in anxiety and distress. Subsequent compulsions serve to reduce this associated anxiety/distress (1).

Obsessions	1. Repetitive thoughts	E.g. Feeling contaminated after touching an object.
	2. Repetitive images	E.g. Recurrent sexually explicit pictures.
	3. Repetitive impulses	E.g. Need of symmetry or putting things in order.
Compulsions	1. Repetitive activities	E.g. Hand washing, checking, ordering, need to ask *etc.*
	2. Repetitive mental acts	E.g. Counting, repeating words silently (2).

People with OCD cannot ignore unpleasant thoughts and pay undue attention to them. This means that the thoughts become more frequent and distressing and, over time, they can affect all areas of a person's life, often their job and their family and social life. It's important to remember that severity of OCD differs markedly between people but each person's distress is very real. People with OCD are not 'mad' or dangerous and do not carry out their unpleasant thoughts. Most people with OCD know that their thoughts are excessive or irrational but the anxiety they feel makes the thoughts difficult to ignore (3).

TYPES OF OCD (3-4):

Obsessive compulsive disorder was categorized into following types.

1.	**Checking -** The need to check is the compulsion, the obsessive fear might be to prevent damage, fire, leaks or harm. e.g. Memory (checking ones memory to 'make sure' an intrusive thought is just a thought and didn't really happen), gas or electric stove knobs (fear of causing an explosion and therefore the house to burn down).
2.	**Contamination -** The need to clean and wash is the compulsion, the obsessive

	fear is that something is contaminated and/or may cause illness, and ultimately death, to a loved one or oneself. e.g. Using public toilets (fear of contracting germs from other people), coming into contact with chemicals (fear of contamination) *etc.*
3.	**Hoarding -** Inability to discard useless or worn out possessions. e.g. Excessively acquiring items that are not needed, persistent difficulty throwing out or parting with your things, regardless of actual value, feeling a need to save these items, and being upset by the thought of discarding them *etc.*
4.	**Ruminations -** Prolonged thinking about a question or theme that is undirected and unproductive. Unlike obsessional thoughts, ruminations are not objectionable and are indulged rather than resisted. e.g. Religious, philosophical or metaphysical topics, such as the origins of the universe, life after death, the nature of morality *etc.*
5.	**Intrusive Thoughts -** A person generally suffers from obsessional thoughts that are repetitive, disturbing and often horrific and repugnant in nature. e.g. Thoughts of causing violent or sexual harm to loved ones.

ETIOLOGY (5):

Despite abundant research being carried out into obsessive-compulsive disorder, the exact cause has not been identified. OCD is, however, considered to have a neurobiological basis, with neuroimaging research showing that the brain functions differently in people with the disorder.

1.	**Genetic causes:** a. Mutations in hSERT - human serotonin transporter gene b. Mutations SLC1A1 - glutamate transporter gene may decrease glutamate uptake.
2.	**Neurological causes:** Imbalances in serotonin or glutamate.
3.	**Environmental causes:** a. Abuse b. Changes in living situation c. Illness d. Death of a family member or friend e. Changes or problems in school or work f. Relationship worries.

4.	**Autoimmune causes**: Rapid onset cases of obsessive-compulsive disorder in children due to streptococcal infections, which cause inflammation and dysfunction in the basal ganglia, referred to as pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections (PANDAS).

RISK FACTORS (6):

Factors that may increase the risk of developing or triggering obsessive-compulsive disorder include:

- **Family history:** Having parents or other family members with the disorder can increase your risk of developing OCD.

- **Stressful life events:** Past traumatic or stressful experiences may increase the risk and trigger the intrusive thoughts, rituals and emotional distress characteristic of OCD.

- **Other mental health disorders:** OCD may be related to other mental health disorders, such as anxiety disorders, depression, substance abuse or tic disorders.

PATHOPHYSIOLOGY (7): The following areas of the brain are affected:

Sr. No.	Affected region	Changes due to OCD
1.	Dorsolateral prefrontal cortex (DLPC)	Diminished activity in the DLPC
2.	Anterior cingulate cortex (ACC)	Excessive activation of ACC
3.	Orbitofrontal cortex (OFC)	Orbitofrontal damage - experience great difficulties in decision-making. The repetitive rituals (compulsions) and aggressive behavior, which is predominant probably due to serotonin depletion.
4.	Striatum	In the context of procedural learning, the disruption of the “readiness”.

5.	Amygdala	Dysfunction of amygdala - might mediate the non-specific anxiety experienced relative to obsessive thoughts.
6.	Thalamus	Associated with deficits in executive functions like planning, goal directed behavior, attention, and working memory.
7.	Brainstem inputs	The repetitive rituals (compulsions) and aggressive behavior, which is predominant probably due to serotonin depletion.
8.	Basal ganglia-thalamocortical circuits	Disruption of information processing at the cortical level due to the loss of the focusing action of subcortical inputs.

CLINICAL SIGNS AND SYMPTOMS (8):

Signs:

- Fear of contamination
- Aggressive impulses
- Constant checking
- Constant counting

Symptoms:

Obsession symptoms:	***Compulsion symptoms:***
• 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	• Washing and cleaning • Checking • Counting • Orderliness • Following a strict routine • Demanding reassurances.

COMPLICATIONS (8):

Complications resulting from OCD may include:

- Health issues, such as contact dermatitis from frequent hand-washing
- Inability to attend work, school or social activities
- Troubled relationships
- Overall poor quality of life
- Suicidal thoughts and behavior.

DIAGNOSIS (8):

- **Physical exam:** This may be done to find other problems that could be causing symptoms and to check for any related complications.
- **Lab tests:** These may include a complete blood count (CBC), a check of thyroid function, and screening for alcohol and drugs.
- **Psychological evaluation:** This includes evaluation of thoughts, feelings, symptoms and behavior patterns. With permission, this may include talking to patient's family or friends.

TREATMENT (2):

It is important at the outset of therapy to identify and document the specific target symptoms for pharmacotherapy. Rating scales can be used to measure symptom severity at baseline and during treatment to ascertain the degree of improvement. The **Yale-brown obsessive compulsive scale** is the most widely used clinician administered scale. A **QOL scale** can assist the clinician in identifying other areas to target for treatment.

Sr. No.	Treatment	Uses
1.	**Nonpharmacological treatment**	1. Cognitive behavioral therapy (CBT) is the treatment of choice for mild OCD in both adolescents and adults. 2. Exposure involves having the patient perform actions that were formerly avoided. For instance, if a patient avoided touching the flush handle on a bathroom toilet, exposure would involve holding onto the handle.
2.	**Pharmacological therapy**	1. The food and drug administration (FDA) has approved five antidepressants for the management of OCD. • Clomipramine • Fluoxetine • Fluvoxamine • Paroxetine • Sertraline 2. Drug therapy is reserved for patients with moderate to severe symptoms. 3. Antidepressants can be combined with CBT or used alone in adults with moderate to severe symptoms.
3.	**Alternative drug treatments**	1. If there is no response or partial response to combined CBT and three adequate antidepressant trails, augmentation with another drug and more intensive CBT can be tried. 2. Augmentation of SSRI treatment with low doses of **risperidone, quetiapine, olanzapine** may be helpful. 3. It is suggested that attempts at augmentation be conducted with the use of rating scales or careful symptom severity assessment.

FUTURE PERSPECTIVE:

❖ It is now agreed that OCD is a neurodegenerative disorder, with the possibility of showing the neuroimaging, the brain changes were observed and various therapies are available. There is still a paucity of long-term trials especially for treatment with SSRIs for more than 1 year and for augmentation with antipsychotics.

❖ Furthermore, there are as yet few switching studies, data on functional outcome parameters, combination studies of drug and cognitive behavior therapy, and randomized controlled trials with novel agents, such as glutamatergic drugs and further atypical antipsychotics.

❖ Even if Cognitive behavioral therapy is recognized, along with SSRI and psychoeducation, as the basis of treatment, new modes of distribution appear such as intensive, family-based, and even Web-based interventions, providing treatment to a larger number of patients.

❖ The understanding of family dynamics and developmental level is fundamental for the development of therapeutic alliance, compliance, and success of treatment with our patients, even if we know more about the genetic, neurological, and pharmacological aspects of anxiety disorders. For sure, in the future, fascinating discoveries and changes in practice will occur in the field of OCD, but an integrative approach will most probably remain essential.

REFERENCES:

1. Lack CW. Obsessive-compulsive disorder: evidence-based treatments and future directions for research. World journal of psychiatry. 2012 Dec 22; 2(6):86.
2. Joseph DiPiro, Robert Talbert, Gary Yee, Gary Matzke, Barbara Wells, M.P., 7 th edition. Pharmacotherapy A Pathophysologic Approach. Published by McGraw Hill companies.2008.
3. KylieCloke. OCD-UK. Copyright © 2004-2017 OCD-UK. Available from: *www.ocduk.org.*
4. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5®). American Psychiatric Pub; 2013 May 22.
5. Nichols, Hannah. "Obsessive-compulsive disorder: Symptoms, causes, and treatment." *Medical News Today*. MediLexicon,Intl.,20Apr2017.Web.3 Jul. 2017.
6. Simpson HB. Obsessive-compulsive disorder in adults: Epidemiology, pathogenesis, clinical manifestations, course, and diagnosis. July19, 2016. Available from:www.mayoclinic.org/ dieseasesconditions/ ocd/basics/ riskfactors/ con-20027827 .
7. Cheng B, Cai W, Wang X, Lei D, Guo Y, Yang X, Wu Q, Gong J, Gong Q, Ning G. Brain Gray Matter Abnormalities in First-Episode, Treatment-Naive Children with Obsessive-Compulsive Disorder. Frontiers in behavioral neuroscience. 2016; 10.
8. Sober media group. ©2017psychGuides.com. Available from: *www.psychguides.com/guides/ocd-obsessive-compulsive-disorder*.