



An overview about Relation and effect between OCD and eating disorder

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Abstract

Background: Obsessive-compulsive disorder (OCD) is characterized by pervasive ideas and compensatory behaviors—obsessions and compulsions—that are used to reduce the stress caused by the intrusive thoughts. OCD frequently first manifests in adolescence and is both underreported and undertreated. Early intervention is essential since it can result in serious debilitation. It is known that there are common points between ED and OCD in terms of etiological, biological, clinical, and therapeutic approach. Clinically, the fears about weight gain, repetitive and persistent preoccupation with food, body image, and losing weight pathways as well as eating vast amounts of food with an irresistible desire and making an effort to vomit afterwards, over-exercising, and ritualized eating attitudes of patients with anorexia and bulimia are likened to unblocked thoughts and repetitive/ritualistic behaviors as those of patients with OCD. In addition to clinical similarities between OCD and ED, there are some similar biological characteristics in the serotonergic system. Research has demonstrated that more than 40 percent of people with an eating disorder may also experience symptoms of OCD and as many as 17 percent of people who have OCD may also have an eating disorder.

Keywords: OCD, eating disorder

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Obsessive-compulsive disorder (OCD) is characterized by pervasive ideas and compensatory behaviors—obsessions and compulsions—that are used to reduce the stress caused by the intrusive thoughts. OCD frequently first manifests in adolescence and is both underreported and undertreated. Early intervention is essential since it can result in serious debilitation (1).

OCD is a chronic illness characterized by distressing intrusive thoughts that cause discomfort. The patient may engage in compulsions or rituals to help them cope with the anxiety and distress brought on by these ideas. These rituals, which can result in a severe reduction in function, are done to make up for the ego-dystonic feelings caused by the obsessional ideas. They can be done alone or with others (2).

Prevalence of OCD:

The 12-month prevalence of OCD in the United States is 1.2%, with a similar incidence internationally (1.1 to 1.8%). Females are affected at a slightly higher rate than males in adults, although males are more commonly affected in childhood (3).

The prevalence in EGYPT The prevalence of OCD in the studied participants (secondary school students) was 3.24%. incidence in adult was 0.86% in 2009 (4) but increased in 2011 to 1.4% (5).

Cross-national differences in prevalence are difficult to interpret because they could be due to various factors, including culturally influenced reporting biases such as reluctance to admit to suffering from a mental disorder. In the United States, the mean age at onset of OCD is 19.5 years, and 25% of cases start by age 14

years. Onset after age 35 years is unusual but does occur. Men have an earlier age at onset than women: nearly 25% of men have onset before age 10 years. The onset of symptoms is typically gradual; however, acute onset can also occur **(6)**.

11 years on average pass before treatment begins. There is concern that therapy will be delayed because OCD sufferers may feel ashamed of their intrusive thoughts, which include inappropriate sexual ideas or ritualistic behavior.

Nearly 90% of those with OCD also have other psychiatric diagnoses, the most frequent of which are anxiety disorders. **(7)**.

In a study at Zagazig university hospital found that Depression was the most prevalent comorbidity among OCD group (36.4%) then anxiety (12.1%) and social anxiety (3%). **(7)**.

Males arrive earlier, but more females are impacted as they get older. OCD is up to two times more likely to occur in postpartum women than in other females **(7)**.

The most prevalent obsessions are those involving fears of contamination, violence, or damage, sexual or religious phobias, or the drive to do things "just right." Washing and cleaning, checking, seeking reassurance, repeating, organizing, and arranging are some of the compensating compulsions for these obsessions.

The WHO identifies OCD as one of the ten most debilitating conditions by financial loss and a decline in quality of life since it may impede a person's social growth and development **(8)**.

Eating disorders are defined as the disruption in the eating behavior with excessive concern about body weight that impairs physical health or psychosocial functioning. Eating disorders can present as severe psychiatric illnesses associated with high rates of morbidity and mortality. The fifth edition of the Diagnostic and Statistical Manual of Mental

Disorders (DSM-5) has changed the terminology "Eating disorders" to "Feeding and Eating Disorders." **(9)**. The EDs prevalence rates dramatically increased during the second half of the 20th century and remained somewhat stable over the last 20 years **(10)**

One in eight youngsters may have at least one eating disorder by twenty years of age. Approximately 5 million Americans are affected by eating disorders every year. Although eating disorders can affect people of all ages and both genders, they are often reported in adolescents and young women **(11)**.

The anorexia nervosa and bulimia nervosa are approximately 0.3% and 1% among adolescent females respectively. The prevalence of eating disorders is generally higher in young women except for binge eating disorder, which is more common in men and older individuals **(12)**.

In Egypt about Prevalence of ED was 3.3% (2.8% for urban and 3.8% for rural students) **(13)**

About one third (33.0%) of the studied students were at risk for eating disorder. EDs Risk was more common among students in the clinical stage compared to the pre-clinical stage. Also, unmarried, those with higher BMI and those practicing regular physical activity were at more risk **(13)**.

One in 40 people globally suffers from obsessive-compulsive disorder (OCD). The interaction between the disorder and a different category of mental health conditions that has some of the greatest mortality rates of any, despite being included among the top 10 most incapacitating mental health conditions, is less frequently known. eating problems **(14)**.

On the surface, OCD and eating disorders might seem very different, but both of these diagnoses can cause life-altering impairments in a person's ability to function. What's more, their symptoms can mirror, underpin, and reinforce each other **(15)**.

The comorbid occurrence of ED and OCD is associated with a prolonged period of illness, worse prognosis for overall functioning, higher rates of other comorbidities, and greater risk for suicide attempts **(16)**. Finally, genomic research has uncovered a large genetic correlation between OCD and AN that suggests shared vulnerability for these syndromes **(14)**.

Genetic studies on AN and OCD have also suggested that they have shared underlying mechanisms. A case-control study has found a significant familial aggregation of AN and OCD, and the bivariate twin models from the Swedish National Patient Register have reported a significant genetic overlap between the two diseases **(17)**, with a correlation coefficient of 0.52.

Consistently, Linkage Disequilibrium Regression analysis using Genome Wide Association Study (GWAS) data revealed a positive genetic correlation (14). The most recent meta-analysis from Psychiatric Genomics Consortium (17) has revealed that AN and OCD shared a compulsive component of genetic architecture, which contributed to their significant genetic correlation (the correlation coefficient reached 0.50) and commonalities in obsessive–compulsive symptoms. These results have suggested that AN and OCD share a large proportion of their genetic basis and indicated that they might have a common pathology

Eating disorders and OCD can go hand in hand:

It is known that there are common points between ED and OCD in terms of etiological, biological, clinical, and therapeutic approach. Clinically, the fears about weight gain, repetitive and persistent preoccupation with food, body image, and losing weight pathways as well as eating vast amounts of food with an irresistible desire and making an effort to vomit afterwards, over-exercising, and ritualized eating attitudes of patients with anorexia and bulimia are likened to unblocked thoughts and repetitive/ritualistic behaviors as those of patients with OCD. In addition to clinical similarities between OCD and ED, there are some similar biological characteristics in the serotonergic system (18)

Several lines of evidence are suggestive of an association between OCD and ED. These putative associations stem from shared characteristics involving the following:

- (1) psychopathologic similarities, such as obsessions related to food or eating patterns and compulsions associated with overeating (BN) or food restriction (AN) (19);
- (2) personality traits, such as perfectionism, meticulousness, and rigidity (20);
- (3) common neuropsychological impairments (21);
- (4) epidemiologic data, mainly concerning prevalence, similar age of onset, course of illness, comorbidities, and genetic loading in familial studies(22);
- (5) neurobiological hypotheses involving the serotonergic system in both conditions (23).
- (6) therapeutic response to both pharmacological and psychotherapeutic approaches.

Research has demonstrated that more than 40 percent of people with an eating disorder may also experience symptoms of OCD and as many as 17 percent of people who have OCD may also have an eating disorder.

OCD is a mental illness that is characterized by obsessions and compulsions. Obsessions are unwanted intrusive thoughts, feelings, images, or ideas that create anxiety or distress (24).

Compulsions are the acts a person performs to reduce this anxiety and distress or prevent a feared outcome, and they can come in many forms. They can be physical behaviors or rituals, or they can involve mental behaviors and cyclical thought patterns (25).

No matter what form they take, compulsions make obsessions and the resulting distress worse and worse over time, trapping people in a cycle that only provides temporary relief until it strikes again. This same cycle exists among eating disorders, a category including Anorexia Nervosa, Bulimia Nervosa, Binge Eating Disorder, Avoidant/Restrictive Food Intake Disorder (ARFID), and a range of other disorders without specific categorization (9).

While these disorders have many significant differences, they all include some preoccupation with the body and/or food. These thoughts, beliefs, ideas, and feelings about one's food and body can be intrusive, unwanted, and highly distressing—quite like obsessions in OCD (26).

Furthermore, the behaviors that people with eating disorders perform in response to these thoughts, such as excessive exercise, food restriction, calorie counting, bingeing, purging, laxative use, and rumination are quite similar to compulsions in OCD. And there are further similarities between eating disorders and OCD, as well. For example, both diagnoses involve intrusive thoughts (27).

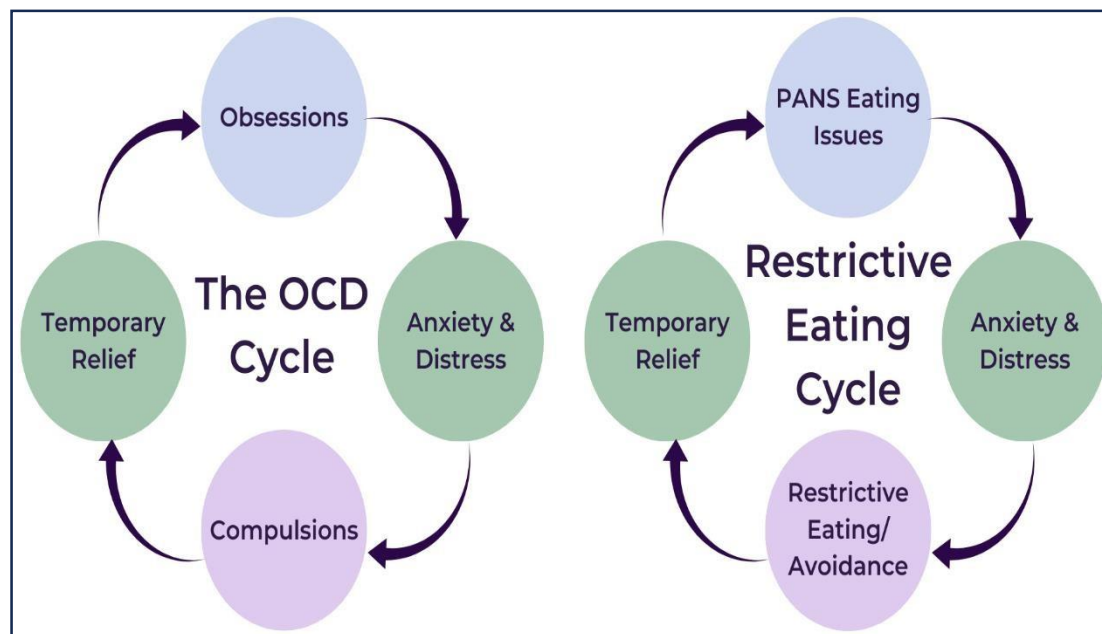


Figure (1): Eating disorder and OCD (28).

Everyone has intrusive thoughts from time to time, but people with these disorders tend to get “stuck” on them and over-value them, and they experience significant distress or anxiety as a result. However, there are some similarities between the experiences of people with OCD and those with eating disorders (14).

For example, someone with an eating disorder may use obsessive exercise as a means to burn off calories or in an attempt to change their physical appearance. Someone with OCD might show similar behavior, with exercise used instead to reduce fear of health risks or in a way that is related to magical thinking: “Something bad will happen if I don’t exercise” (29).

OCD and eating disorders can both be extremely time consuming, can negatively impact one’s physical health, can be associated with trauma, can relate to a dependency on the external world for trust and safety, and often involve rigidity, perfectionism, magical thinking, shame and guilt, and hyper-responsibility (30).

While physicians are just beginning to understand these connections, preliminary research suggests similarities in how the brains of people with OCD and eating disorders process information. Several studies found similarities in how patients with OCD and patients with anorexia responded to a task involving the prefrontal cortex and caudate nucleus, the parts of the brain involved with things like planning complex behaviors, learning, emotion, and more (15).

Their brains also showed elevated cerebral glucose metabolism, which, explains the researchers, offers evidence that both diagnoses could have origins in common neurobiological abnormalities. Other brain imaging shows similar findings in people with OCD. More research is needed to find out if this, or other, abnormalities associated with OCD are also present in people with eating disorders (30).

The key differences between OCD and eating disorders:

While striking similarities exist, the differences between OCD and eating disorders can make a significant impact on how they are treated. Intrusive thoughts can be easier to identify in OCD because they are usually distressing and conflict with a person or culture’s values. People that have OCD do not like their thoughts and have a lot of fear associated with them (25).

Identifying this characteristic, known by professionals as ego-dystonic, is a critical part of diagnosing OCD. What makes intrusive thoughts particularly nefarious in eating disorders is that many of them are reinforced by culture, which means that people with an eating disorder do not always view these thoughts and behaviors as problematic (26).

Because eating disorders are not always ego-dystonic, motivation for change is often more difficult than it is among OCD sufferers. Most obsessions and accompanying compulsions related to OCD are irrational, whereas eating disorder behaviors may be somewhat rational at times (30).

Obsessive thoughts around the body, or the belief that certain foods are “good” or “bad” often align with and are reinforced by the beliefs of culture as a whole. What is often irrational is the amount of distress a person is in because of their eating disorder beliefs. These differences must be taken into account when we think about treating OCD and eating disorders (24).

It is crucial for a clinician to more closely examine not only specific behaviors observed but also the motivations behind those behaviors.

Asking “why?” can help untangle the web between OCD and eating disorder symptoms. Asking questions such as, “Why are your obsessions distressing? What is driving you to perform compulsions? What is the feared outcome?” This will most likely distinguish whether someone has OCD or an eating disorder (27).

Despite having many similarities, OCD and eating disorders are often treated differently and it is important to know what modalities are best for each. Active behavioral therapy modalities like Cognitive Behavioral Therapy (CBT) may be helpful in shifting a person’s beliefs and distress associated with eating disorders. There is also evidence supporting the use of Dialectical Behavioral Therapy (DBT), Family-Based Therapy (FBT), and Interpersonal Psychotherapy for eating disorders (31).

Research has found, however, that exploring the past and causes does not effectively help with OCD treatment, for which the gold standard is Exposure and Response Prevention (ERP). ERP is a type of CBT that focuses more on behavior than on changing or challenging cognition. There is promising research on the use of ERP specifically for the treatment of eating disorders (30).

This area should be explored more because of the numerous similarities between eating disorders and OCD. Acceptance Commitment Therapy (ACT) and Mindful Self-Compassion are great adjunct therapies for OCD and eating disorders. Psychopharmacological treatment has also been shown effective with both populations in addition to psychotherapy (29).

It’s important to remember that everyone is different, and nuance should always be taken into consideration in the diagnosis of OCD and specific eating disorders. For example, because ARFID and Orthorexia may not revolve around weight, body shape, or appearance, their symptoms can be easily misinterpreted as being associated with OCD alone (26).

Recognizing that these disorders can work in tandem, clinicians should always begin by treating the diagnosis that is most negatively impacting the client’s medical stability. Eating disorders are complex disorders that never have one single cause, but when we look at them through the lens of OCD, similarities often emerge. While it’s important not to oversimplify these disorders, understanding these similarities can offer helpful insight (14).

Perfectionism in OCD and Eating Disorders:

The personality characteristic of perfectionism appears to be highly related to both OCD and eating disorders. Perfectionism, of course, has a positive and negative side. Used positively, perfectionism leads to high expectations and good organizational skills, On the negative side, perfectionism is related to unreasonable and often unattainable expectations (27).

OCD and eating disorders exhibit a clinically unhealthy level of perfectionism. It has been hypothesized that being perfectionistic is at least partly responsible for the high comorbidity between OCD and eating disorders. Indeed, research has found that perfectionism (along with neuroticism) mediates the relationship between many eating disorders and OCD symptoms (30).

Intolerance of uncertainty in OCD and Eating Disorders:

Another potential, though less researched, contributing factor to ED-OCD comorbidity is IU. IU is the tendency to have negative perceptions and reactions to ambiguous stimuli. IU is elevated among individuals with EDs (32) and OCD (33).

Among individuals with EDs, higher levels of IU are moderately related to high drive for thinness (i.e., concerns with dieting, preoccupations with weight or shape, and extreme attempts to pursue a thin body) and body dissatisfaction (32), which are key characteristics of EDs.

These findings suggest that IU may be a maintenance factor of EDs and OCD. Thus, based on prior research in both the ED and OCD fields, it is possible that IU is an important contributing factor to ED-OCD comorbidity. However, little is known as to how IU prospectively maintains ED and OCD symptoms, nor are we aware of any studies that assess IU in ED-OCD comorbidity specifically

Treatment of comorbid eating disorders and OCD:

Cognitive-Behavioral Therapy (CBT):

In CBT, people are taught how to employ positive behaviors and challenge distorted thoughts. This has practical value for the treatment of both OCD and eating disorders. People with eating disorders tend to have unrealistic thoughts about their weight and their body (15).

In OCD, distorted thoughts fuel obsessive thinking. In both disorders, healthy actions need to be implemented to help reduce maladaptive behavior. CBT is effective in reducing the symptoms of both OCD and eating disorders, although it has been less studied in the adolescent population (29).

Exposure and Response Prevention (ERP):

The gold standard therapy for OCD is exposure and response prevention. This treatment involves exposing the person to stimuli that induce obsessive thoughts but preventing them from acting on their compulsions (30).

Preventing the response shows the person that they will be okay even if they do not exercise their compulsion. ERP also works in the treatment of eating disorders. Clinicians help people cope with their urges to binge, restrict, and exercise despite an overwhelming feeling that they need to control their behavior (15).

Medication:

Selective Serotonin Reuptake Inhibitors (SSRIs) are the most commonly used medications in the treatment of eating disorders and OCD. They have shown promising results in the treatment of bulimia but not as much success with anorexia or the adolescent population. Medication has exhibited more efficacy in treating OCD. SSRIs have been found to reduce symptoms in approximately half of all patients suffering from the disorder (25).

Although it can be confusing to differentiate between eating disorders and OCD, they are both disruptive problems with potentially serious consequences. When they occur together, it presents a more complicated clinical picture that is difficult to treat. If you have a concern about whether you may have one or both of these disorders it is important to seek professional help (14).

Significant advancements have recently been made in both the diagnosis and treatment of OCD and eating disorders as separate entities, but ample scientific research into the connection between the two, the commonality of their symptoms, and the possible biochemical similarities behind, them is presently lacking. Fortunately, some of the most promising psychiatric investigations into the overlapping symptoms of spectrum disorders have focused on these neurophysiological similarities. One such study asked participants to engage in a task believed to activate the prefrontal cortex and caudate nucleus of the brain so as to compare the performance of participants with OCD to that of those with anorexia. The study found that both groups had difficulty with the task and had higher cerebral glucose metabolism, suggesting a connection between the two disorders and offering evidence that, “ritualized obsessive and compulsive behavior (with reference to eating disorders, as well as washing and checking OCD) could have its origin within common neurobiological abnormalities,” (14). Although such results are clearly signs of progress, they are still indirect and speculative at best. More work is therefore needed in order to properly isolate the clinical symptoms, biochemical factors, and genetic causes behind OCD and eating disorders. In one of our studies we found that obsessive-compulsive overeaters responded to exposure and response prevention, while another group of overeaters responded better to more traditional stimulus control methods of treatment. This shows that those eating disorders that are similar to OCD may respond better to treatment strategies used to treat more typical OCD behaviors. Consequently, for the sake of all those who suffer the obsessive-compulsive related disorders need

to be studied further in order to enhance our understanding of their similarities and dissimilarities. In doing so we will hopefully not only arrive at better treatment strategies but also increase our knowledge of the psychological and biological mechanisms by which the disorders develop.

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