# Treatment for OCD and Their Effectiveness

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**Abstract:** This research looks at a variety of aspects related to obsessive-compulsive disorder (OCD), such as symptoms, possible factors diagnosis, and treatment methods. OCD's distinctive ritualistic compulsions, which frequently manifest as uncontrollable thought and behavior patterns, are brought on by distressing obsessions. According to this study neurotransmitter and Corticostriatal circuits' abnormalities have been linked to this disorder, although the exact cause is still unknown. Increased susceptibility among blood relations of sick individuals suggests a role for genetics. Obsessions and compulsions are diagnosed based on predetermined criteria that highlight their irrationality and disruptive nature. The connection between obsessive thoughts and anxiety can be broken by a number of treatments, the foundation of which is behavioral therapy. By gradually confronting anxiety-inducing circumstances, exposure and response prevention (ERP) has proven successful. According to this paper the main objectives of cognitive therapy are to address dysfunctional thought processes, such as overestimating threats or taking on excessive responsibility. This paper contends that by cognitive-behavioral therapy (CBT) combining behavioral and cognitive elements is both economical and efficient. The studies under review in this paper demonstrate differences in treatment effectiveness, accentuating the necessity for more studies with larger sample sizes in making definitive judgments on treatment outcomes.

*Keywords:* obsessive-compulsive disorder, cognitive-behavioral therapy, cognitive therapy

## 1. Introduction

OCD is distinguished by recurrent and disturbing feelings or images known as obsessions. These obsessions typically result in compulsions, defined as motor or mental behaviors that are repeated and ritualistic, such as washing one's hands or counting [1]. According to Parkin [2], the beginning of obsessive-compulsive disorder often occurs between 12 and 25.

This research aims to provide a comprehensive understanding of OCD, including a review of its symptoms, potential causes, diagnostic standards, and treatment modalities. The decision to choose the subject matter arises from the persistent necessity to enhance awareness surrounding OCD and enhance treatment methodologies.

The substantial volume of research that has been done on the subject, such as Jelinek [1]; Ivarsson [3]; Öst [4], still have not provided the exact cause OCD. Many researchers such as these have hypothesized that hereditary factors and abnormalities in neurotransmitters are two of the variables that contribute to the development of this illness. Nevertheless, there are still inefficiencies that have not been corrected in this area. While it is also important to noting that there are some premises, the

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efficiency of the various treatment approaches varies widely throughout the various research studies that have been conducted.

The major purpose of this research is to give a complete overview of the existing body of literature relevant to OCD. A particular emphasis will be placed on identifying the core signs and symptoms, potential etiological variables, and criteria for diagnosis for the disorder. In addition, the current research investigates a variety of treatment approaches, with a particular focus on behavioral therapy, cognitive-behavioral therapy (CBT), and exposure and response prevention (ERP).

his study highlights the significance of continuous research undertakings aimed at gaining a deeper comprehension of the complex characteristics of OCD and enhancing the effectiveness of therapeutic interventions for individuals diagnosed with this condition.

### 2. Literature Review

This part of the chapter looks at the signs and probable causes of OCD. After that, it discusses how OCD is diagnosed and treated.

## 2.1. OCD Symptoms

Obsessive thoughts and compulsive behaviors are the two groups of symptoms that make up this disorder's two symptom clusters. These obsessions almost always result in the individual experiencing anguish and worry [5]. As per Rogers [5], patients typically see these ideas as illogical; they attempt to ignore or repress these thoughts. Patients have reported experiencing certain symptoms, including an urge to inspect their partners' excrement or a need to wash their hands after shaking someone's hand [2]. Obsessions with any form of contamination are common among adults and children. Compulsions are characterized by compulsive checking of locks and alarms, compulsive hand washing, compulsive list-making, compulsive counting of things, and compulsive lining up objects in a specific order [6]. OCD individuals may exhibit various symptoms, including compulsions and obsessions like the ones listed.

In their study, Sookman et al. [7] discovered that people who suffer from OCD engage in overt compulsions and covert mental rituals such as counting. This was one of the findings of the study. Conjuring up a "safe" number or picture, quietly repeating prayers, or mentally reviewing facts to dispel the fear that one would forget facts such as name are some types of rituals that fall under this category [7].

## 2.2. Suspected Causes

There is still a lot of mystery about what triggers OCD. On the other hand, there is evidence to imply that a malfunction of corticostriatal circuits forms a fundamental role in the disorder's basic makeup [8]. In obsessive-compulsive disorder (OCD), the underlying brain abnormality has been the subject of a growing number of research, which has produced an increasing amount of information on the problem that arises in a circuit that normally links the frontal lobes of the cerebral cortex to the basal ganglia. Symptoms of obsessive and compulsive disorders are frequently the result of traumas and conditions that interferes with normal functioning [9]. Positron emission tomography scans, sometimes known as PET, offer direct evidence that the frontal cortex and the basal ganglia are involved in OCD [3].

Sachdev and Malhi [10] contend that early neurological literature suggests that people suffering from "encephalitis lethargic," a sleeping ailment that destroys the brain and leaves patients mute and lifeless, commonly had obsessions and compulsions. In most cases, they were accompanied by symptoms of anxiety and oculogyric crises, which are brought on by an adverse reaction to a particular medication or a medical condition. Shifting eyeballs is one way people have responded to

the crisis. According to Adams [11] Signals have also suggested a concern with the transmission of the significant "neurotransmitter serotonin" that is situated in the brains.

Although the specific genes responsible for OCD have not been identified, experts also believe that genetics may play a role in some instances of the condition [12]. In comparison, the lifetime risk for persons who are related to those who have been diagnosed with the condition is nine percent. In contrast, it is just two percent of the general population. Heritability was estimated to be as high as 68 percent based on research that compared identical twins with fraternal twins [3].

## 2.3. OCD Diagnosis

According to Robinson [13], adults and children have the same diagnostic norms for OCD. The condition manifests in the same way in adults and children of any age. According to the "Diagnostic and Statistical Manual of Mental Disorders," for a patient to be diagnosed with a mental disorder, he or she must acknowledge that the substance of the patient's obsessions and compulsions is unreasonable. The symptoms must be upsetting and take up a significant amount of the patient's attention. It is not possible that the obsessions or compulsions are the results of substance misuse or any other mental illness [14].

To receive a diagnosis of the disease, it is necessary to fulfill all the DSM prerequisites. The DSM-IV indicates that the conditions are satisfied if there are obsessions or compulsions that have been characterized in the past and that these behaviors are current or if the abnormalities cannot be explained by another mental disease.

#### 2.4. Treatments

The available research shows various approaches to treating obsessive-compulsive disorder (OCD). When providing care for patients, one of the most challenging aspects is overcoming the wide range of symptoms and co-existing diseases that patients experience. Because of this, therapists have a great deal of difficulty while attempting to treat the illness [15]. Despite all the recent breakthroughs in therapy, there is still a problem with treating OCD since around 25 percent of persons refuse treatment, and approximately 20 percent abandon their treatment at some point throughout their treatment. According to O'Connor et al, it is also claimed that a significant proportion of persons do not even seek therapy for their condition [16]. However, despite the challenges physicians face when attempting to treat OCD, the number of therapies available and the effectiveness of these treatments is continually growing.

# 2.5. Behavioral Treatment

Ivarsson et al [17] contends that amongst the most effective methods for treating obsessive-compulsive disorder is called behavioral therapy. Treatments based on behavioral principles for obsessive-compulsive disorder are predicated on the premise that compulsions are maintained through punishment [17]. One objective of behavior treatments is to try to break the connection that clients have formed in their minds between their obsessions and the anxiety that follows them. Another objective is to dismantle the link the patient perceives between satisfying their compulsion and experiencing relief from their worry [18]. The most important behavioral therapies include desensitization, modeling, exposure, muscular relaxation, and reaction avoidance [19]. The effectiveness of behavioral treatment ranges anywhere from 70 to 92 percent successful [17].

## 2.6. Exposure and Response Prevention

Exposure and response prevention (ERP) has been recommended as a viable treatment for OCD, either on its own or in conjunction with medication or cognitive-behavioral therapy [20]. It has been demonstrated beyond a reasonable doubt that ERP is effective, as stated by Hezel & Simpson [20]. When performing ERP, the first step is to construct a fear hierarchy consisting of scenarios that might bring on feelings of anxiety. The patient advances to a higher level on a fear hierarchy by subjecting themselves to increasingly difficult and anxiety-inducing experiences.

## 2.7. Cognitive Treatment

The theory behind cognitive therapy, often known as CT, is that compulsive behaviors are the result of a recurrent pattern of thinking in which a person worries that they or other people might be put in danger as a result of a certain behavior or the inability to perform a specific act [21]. People who suffer from OCD frequently exhibit dysfunctional thought patterns, the most common of which are an illogical sense of personal responsibility and an irrational perception of danger [4]. Consequently, the purpose of cognitive treatment is to combat the extreme liability and perfectionism characteristic of OCD sufferers [3]. Cognitive treatment is thus to help patients overcome that recurrent thinking of worries and release the pressure being unnecessarily caring and in charge of.

# 2.8. Cognitive-behavioral Treatment

The cognitive-behavioral treatment combines aspects of behavioral therapies such as "exposure and response prevention" with cognitive psychiatry, such as cognitive restructuring [22]. It has been confirmed that cognitive behavioral therapy is beneficial and is also the most cost-efficient treatment option currently accessible [23]. The cognitive-behavioral therapy process consists of three stages: the first is information collection, followed by exposure and reaction prevention that a counselor directs, and the last is homework assignments [17].

Anholt et al [24] used a large sample size, and ERP and CT provided equal advantages. According to the findings of their research, 57% of individuals diagnosed with CT were considered to have "recovered," while 75% exhibited "reliably altered" symptoms [7]. According to Smits et al [25] research, it was discovered that therapy was successful for seventy-four percent of individuals who had been diagnosed with CT. In addition, they found that CT was more useful than ERP in reducing symptoms of depression. It was determined from the outcomes of research that was carried out by Abramowitz et al. [26] that CT led to a little reduction in OCD symptoms. Based on the current research findings, it has been shown that cognitive therapy (CT) does not exhibit superior effectiveness compared to exposure and response prevention (ERP). Conversely, the statistical data indicates that cognitive therapy (CT) may lead to a decreased percentage of individuals discontinuing their treatment. This issue is a significant concern that arises across all treatment modalities for OCD, manifesting in diverse manifestations [26]. While there is evidence supporting the benefits of CT for certain individuals, the findings of this study do not indicate its efficacy as a treatment when compared to alternative therapies like ERP. The gap identified in this section pertains to the inadequate sample sizes observed in most conducted studies, which limits their ability to definitively demonstrate the efficacy of the treatment.

#### 3. Conclusion

In conclusion, this investigation is focused on OCD, and it includes a variety of issues, including a review of the condition's distinguishing symptoms, potential causes, diagnostic criteria, and treatment options that are currently available. Even though a significant amount of research has been conducted

on a wide variety of suspected risk factors, such as genetic vulnerability, abnormalities in neurotransmitter activity, and dysregulation in brain circuitry, the exact origin of OCD is still unknown. The diagnostic criteria focus a significant amount of stress on the irrational nature of compulsive and obsessive behaviors, as well as the negative repercussions of these behaviors and how they differ from other psychiatric diseases.

Despite notable progress, the treatment domain continues to encounter obstacles in effectively treating the wide range of symptoms and comorbidities encountered by individuals with OCD. Desensitization, modeling, and exposure are among the behavioral interventions that have demonstrated efficacy in disrupting the association underlying obsessions and anxiety, as well as the perceived alleviation resulting from compulsions.

The efficacy of Exposure and Response Prevention (ERP), either as a standalone intervention or in combination with medication or cognitive-behavioral therapy (CBT), has been demonstrated in the management of OCD. The therapeutic modality referred to as cognitive-behavioral therapy (CBT), which integrates behavioral and cognitive techniques, has exhibited potential; nonetheless, more extensive investigations are required to provide definitive findings regarding its efficacy.

The continuous investigation of the intricacies of OCD is of utmost importance as it possesses the capacity to refine therapeutic approaches and enhance the overall well-being of individuals afflicted by this illness. In addition, it is crucial to emphasize the significance of employing bigger sample sizes in research pertaining to therapy treatments. It is imperative to prioritize the attainment of comprehensive insights and robust findings pertaining to OCD and its available therapeutic interventions.

#### References

- [1] Jelinek, L., Moritz, S., Heeren, D. & Naber, D., 2006. Everyday memory functioning in obsessive—compulsive disorder. Journal of the International Neuropsychological Society, 12(5), pp.746-749.
- [2] PARKIN, R., 1997. Obsessive-compulsive disorder in adults. International Review of Psychiatry, 9(1), pp.73-82
- [3] Ivarsson, T., Melin, K. & Wallin, L., 2008. Categorical and dimensional aspects of co-morbidity in obsessive-compulsive disorder (OCD). European child & adolescent psychiatry, 17(1), pp.20-31.
- [4] Öst, L.G., Havnen, A., Hansen, B. & Kvale, G., 2015. Cognitive behavioral treatments of obsessive–compulsive disorder. A systematic review and meta-analysis of studies published 1993–2014. Clinical psychology review, 40, pp.156-169.
- [5] Gournay, K., Curran, J. & Rogers, P., 2006. Assessment and management of obsessive compulsive disorder. Nursing Standard (through 2013), 20(33), p.59.
- [6] Merlo, L.J. and Storch, E.A., 2006. Obsessive-compulsive disorder: Tools for recognizing its many expressions. Journal of Family Practice, 55(3), pp.217-223.
- [7] Sookman, D., Abramowitz, J.S., Calamari, J.E., Wilhelm, S. & McKay, D., 2005. Subtypes of obsessive-compulsive disorder: Implications for specialized cognitive behavior therapy. Behavior Therapy, 36(4), pp.393-400.
- [8] Chosak, A., Marques, L., Greenberg, J.L., Jenike, E., Dougherty, D.D. & Wilhelm, S., 2008. Body dysmorphic disorder and obsessive—compulsive disorder: Similarities, differences and the classification debate. Expert review of neurotherapeutics, 8(8), pp.1209-1218.
- [9] Stein, D.J., 2002. Obsessive-compulsive disorder. The Lancet, 360(9330), pp.397-405.
- [10] Sachdev, P.S. and Malhi, G.S., 2005. Obsessive—compulsive behaviour: a disorder of decision-making. Australian & New Zealand Journal of Psychiatry, 39(9), pp.757-763.
- [11] Adams, G.B., 2004. Identifying, assessing, and treating obsessive-compulsive disorder in school-aged children: The role of school personnel. Teaching Exceptional Children, 37(2), pp.46-53.
- [12] Coles, M.E., Cook, L.M. & Blake, T.R., 2007. Assessing obsessive compulsive symptoms and cognitions on the internet: evidence for the comparability of paper and Internet administration. Behaviour Research and Therapy, 45(9), pp.2232-2240.
- [13] Robinson, R., 1998. Obsessive-compulsive disorder in children and adolescents. Bulletin of the Menninger Clinic, 62(4), p.A49.
- [14] Swinson, R.P., Antony, M.M., Rachman, S. & Richter, M.A. eds., 2001. Obsessive-compulsive disorder: Theory, research, and treatment. Guilford Press.

- [15] McKay, D., Abramowitz, J.S., Calamari, J.E., Kyrios, M., Radomsky, A., Sookman, D., Taylor, S. & Wilhelm, S., 2004. A critical evaluation of obsessive–compulsive disorder subtypes: Symptoms versus mechanisms. Clinical psychology review, 24(3), pp.283-313.
- [16] O'connor, K.P., Aardema, F., Bouthillier, D., Fournier, S., Guay, S., Robillard, S., Paissier, M.C., Landry, P., Todorov, C., Tremblay, M. & Pitre, D., 2005. Evaluation of an inference-based approach to treating obsessive-compulsive disorder. Cognitive Behaviour Therapy, 34(3), pp.148-163.
- [17] Torp, N.C., Dahl, K., Skarphedinsson, G., Compton, S., Thomsen, P.H., Weidle, B., Hybel, K., Valderhaug, R., Melin, K., Nissen, J.B. & Ivarsson, T., 2015. Predictors associated with improved cognitive-behavioral therapy outcome in pediatric obsessive-compulsive disorder. Journal of the American Academy of Child & Adolescent Psychiatry, 54(3), pp.200-207.
- [18] Sánchez-Meca, J., Rosa-Alcázar, A.I., Iniesta-Sepúlveda, M. & Rosa-Alcázar, Á., 2014. Differential efficacy of cognitive-behavioral therapy and pharmacological treatments for pediatric obsessive-compulsive disorder: A meta-analysis. Journal of anxiety disorders, 28(1), pp.31-44.
- [19] Kyrios, M., Hordern, C. & Fassnacht, D.B., 2015. Predictors of response to cognitive behaviour therapy for obsessive-compulsive disorder. International Journal of Clinical and Health Psychology, 15(3), pp.181-190.
- [20] Hezel, D.M. & Simpson, H.B., 2019. Exposure and response prevention for obsessive-compulsive disorder: A review and new directions. Indian journal of psychiatry, 61(Suppl 1), p.S85
- [21] Foa, E.B., 2022. Cognitive behavioral therapy of obsessive-compulsive disorder. Dialogues in clinical neuroscience.
- [22] Simpson, H.B., Maher, M.J., Wang, Y., Bao, Y., Foa, E.B. & Franklin, M., 2011. Patient adherence predicts outcome from cognitive behavioral therapy in obsessive-compulsive disorder. Journal of consulting and clinical psychology, 79(2), p.247.
- [23] Storch, E.A., Björgvinsson, T., Riemann, B., Lewin, A.B., Morales, M.J. & Murphy, T.K., 2010. Factors associated with poor response in cognitive-behavioral therapy for pediatric obsessive-compulsive disorder. Bulletin of the Menninger Clinic, 74(2), p.167.
- [24] Anholt, G.E., Aderka, I.M., Van Balkom, A.J., Smit, J.H., Hermesh, H., De Haan, E. & Van Oppen, P., 2011. The impact of depression on the treatment of obsessive-compulsive disorder: results from a 5-year follow-up. Journal of Affective Disorders, 135(1-3), pp.201-207.
- [25] Olatunji, B.O., Rosenfield, D., Tart, C.D., Cottraux, J., Powers, M.B. & Smits, J.A., 2013. Behavioral versus cognitive treatment of obsessive-compulsive disorder: an examination of outcome and mediators of change. Journal of consulting and clinical psychology, 81(3), p.415.
- [26] Abramowitz, J.S., Taylor, S. & McKay, D., 2005. Potentials and limitations of cognitive treatments for obsessive-compulsive disorder. Cognitive behaviour therapy, 34(3), pp.140-147.