

Emotion Regulation and Personalized Treatment in Obsessive–Compulsive Disorder

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Abstract. Obsessive-compulsive disorder (OCD) is a condition marked by persistent obsessions and compulsions that impacts roughly 1 to 3 percent of the global population. The focus has expanded from investigating solely on behavioral manifestations to emotional components, cognitive processes and the effectiveness of treatment. This paper systematically examines how avoidance emotions contribute to OCD development and how self-efficacy and insight influence the response to treatment. The results indicate that integrating skills to cope with distress better improving self-efficacy and strengthening family support are critical to achieving optimal treatment outcomes. The current studies have some limitations like small sample size, short period follow ups and insufficient evaluation of emotions; future research should focus on multidimensional evaluations, including emotion regulation as a secondary goal along with exploring various presentation styles and creating combined interventions to enhance individualized and lasting effectiveness, in treating OCD.

Keywords: Obsessive-compulsive disorder, emotional components, cognitive processes, effectiveness of treatment, self-efficacy, family support.

1. Introduction

Obsessive Compulsive Disorder (OCD) is a mental illness marked by chronic obsessions and compulsions. It impacts around 1-3% of the population and is linked to emotional distress and impairment, in daily functioning over time. Earlier studies primarily looked at the behaviors associated with OCD. Modern research has shifted towards exploring the cognitive mechanisms underlying OCD. Another area of focus is the evaluation of various treatment approaches

Among these processes identified by experts is the use of compulsions, as strategies to avoid emotions that could include anxiety or shame among others as to manage perceived threats in different individuals. An additional crucial area of focus has been understanding how individual internal psychological characteristics such as insight and self-efficacy play a role in determining an individual's ability to participate in therapy sessions effectively and derive benefit from them. These aspects are specifically important, in exposure based therapies where managing emotions and taking responsibility are key pillars of the treatment approach.

The field also looks into treatment methods apart from the internal factors mentioned earlier. While Cognitive Behavioral Therapy (CBT) and Exposure and Response Prevention (ERP) are commonly used as primary treatments, recent research has delved into approaches such as Acceptance and Commitment Therapy (ACT), Mindfulness-Based Cognitive Therapy (MBCT) and Compassionate Focused Therapy (CFT). Experts are also showing a growing curiosity in exploring ways of delivering treatment (such as face to face versus online CBT), the use of medications in combination with therapy and family-based treatment processes.

This analysis will consolidate the research findings to explore (1) The essential psychological aspects of OCD impacting therapy and (2). The effectiveness comparison of treatment approaches, with the goal of offering insights and a well-informed perspective on managing OCD.

2. Introducing to OCD

Obsessive–Compulsive Disorder (OCD) is a lasting and often challenging health condition marked by intrusive thoughts (obsessions) and repetitive actions (compulsions). These behaviors are maintained by attempts to neutralize perceived threats or reduce anxiety. In addition to the guidelines,

like the DSM 5 that outline OCD symptoms based on behavior patterns, the latest studies are increasingly delving into the emotional aspects that impact how individuals respond to treatment.

3. Different Treatments For Ocd

3.1. Traditional treatment of OCD

Compulsions in OCD often function as maladaptive ways to cope with emotions by avoiding negative emotions rather than merely neutralizing distress, as was previously believed. These compulsions are now seen as helping individuals evade distressing emotions such as anxiety, guilt, and shame. Understanding compulsions in terms of avoidance has implications for therapy. ERP is considered the gold-standard treatment for OCD that focuses on breaking this pattern by exposing patients to their fears and stopping them from engaging in compulsive behaviors. According to Abramowitz (1996), ERP helps individuals learn ways to confront and deal with emotions through promoting habituation to anxiety-inducing stimuli and fostering emotional coping skills. In the Bergen 4 Day Treatment study conducted by Hansen and colleagues in 2019, it was highlighted that exposure and response prevention (ERP) through “Lean Into the anxiety”(LET) technique contributed not only to reduction in compulsive behaviors but also improved long-term functioning and increased emotional tolerance among OCD individuals. Likewise in an analysis by Song et al. (2022), it was found that ERP played a role in alleviating both obsessive symptoms and emotional distress(depression and anxiety) associated with OCD. Gragnani et al. (2022) further support this idea by evaluating the results of CBT in a real-world outpatient environment.They highlight that effective therapy progress encompasses not only decreases in actions but also a greater readiness to confront anxiety inducing thoughts and feelings.The approach focused on altering patterns and using acceptance strategies to reduce emotional avoidance. In therapy sessions, patients who actively dealt with their internal distress tended to show more progress. This highlights the importance of developing emotional coping skills for treatment of OCD. Collectively, these findings indicate the need to address the emotional aspects of OCD for effective treatment rather than just focusing on observable behaviors.

3.2. The role of self-efficacy and insight in OCD treatment

Two key psychological aspects that have been proven to have an impact on the effectiveness of treating OCD are self-efficacy and insight. Self-efficacy refers to individuals’ beliefs on their ability to execute behaviors in order to produce specific performance achievements. Insight refers to individuals’ self-awareness and their understanding of their symptoms and their irrational compulsive behaviors. According to a study by Bhardwaj et al. (2022), individuals with higher self-efficacy(measured by self-report) and greater insight (measured by Brown Assessment of Beliefs Scale) tend to experience lower severity symptoms of OCD and show better progress in therapy sessions.

Building on this finding, Xu et al. (2024) discovered that one's ability to cope with emotions referred to as distress tolerance, played a mediating role in how self-efficacy influences the success of ERP outcomes. Their clinical investigation showed that patients who exhibited confidence in managing challenging feelings saw significant improvements in symptoms during ERP therapy sessions. The study highlighted a two-way connection between self-efficacy and distress tolerance; enhancements in self-efficacy contributed to emotional resilience. Conversely, the study improved distress tolerance and also reinforced individuals’ self-efficacy levels. The results support the idea of an inhibitory learning model and highlight that overcoming OCD involves more than altering actions or boosting awareness; it also involves aiding patients emotionally in connecting with discomfort without depending on compulsions.

4. Treatments

4.1. Cognitive Behavioral Therapy (CBT) and ERP

Abramowitz (1996)'s meta-analysis analyzed 24 studies that included 38 ERP treatment groups and uncovered that Exposure and Response Prevention (ERP) resulted in significant decreases in OCD symptoms; self-rated effect sizes were 1.16 on average while clinician rated effect sizes were even higher at 1.41. Additionally, the study explored various ERP approaches. Therapist-guided exposure

showed complete response prevention and longer sessions were all correlated with improved results. These discoveries have played a role in solidifying ERP as an impactful treatment for OCD, in different therapy approaches. .

In a study by Gragnani and colleagues in 2022 at a cognitive therapy clinic in Italy with 43 adult patients diagnosed with OCD (58% male and an average age of around 33). It was found that participants undergo treatment sessions using a five phase CBT approach focusing on restructuring and emotional acceptance prior to ERP techniques; a total of 40 patients successfully completed the program. According to their study using the Yale- Brown Obsessive Compulsive Scale (Y-BOCS) researchers noted a decrease, in score from 28.03 to 14.95 across approximately 32 sessions spanning nine months, showing a strong impact (Cohen's d effect size of 1.58) and statistical significance with a p value less, than.001. The authors did not specifically examine subgroups; however, they observed that patients who embraced their distress and moral emotions effectively tended to adhere consistently and show greater progress in treatment outcomes, highlighting the role of emotions in compulsions and the significance of preparing patients mentally before undergoing ERP therapy.

In a research conducted by Hansen and colleagues in 2019, they examined the long-term effects of the Bergen 4-Day Treatment (B4DT) which is an intensive Exposure and Response Prevention (ERP) based program and is carried out over four consecutive days in a group setting. The study involved 77 adults diagnosed with OCD (mean age=32.5 and 70 .1% being female). After using the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), researchers discovered a decrease in the severity of patient symptoms from an average of 25.9 before treatment to 10.0 after treatment and 9.9 at the four year follow up period with substantial improvements (Cohen's d =3.65 post treatment and 2.49 at follow up). Four years later during the follow-up assessment approximately 68.8 percent of the participants met the criteria for recovery while none exhibited any signs of clinical deterioration. Although the research did not include a control group, the findings demonstrated long term results when compared to ERP programs, in terms of effectiveness assessment.

In a meta-analysis conducted by Song and colleagues (2022), they analyzed data from 30 research papers that included 39 randomized controlled trials that involved a total of 1793 participants to assess how effective Exposure and Response Prevention (ERP) is for treating OCD. The results showed that ERP had an impact compared to control groups; with a large effect size of g =0. 97 against placebos and a moderate effect size of g =0. 59 when compared to medication based treatments. Interestingly there was no variance when compared to different forms of therapy. The implementation of ERP also resulted in noteworthy decreases in symptoms like anxiety (g =0.23) and depression (g =0.15). Through subgroup assessments conducted by the researchers, it was found that specific forms of ERP—such as therapist guided exposure, with self-regulation and total response prevention—were linked to better outcomes. These findings, combined with the noted heterogeneity (I^2 =77%), indicate that the form in which ERP is administered can greatly influence its efficacy.

Overall, Cognitive Behavioral Therapy (CBT), especially when paired with Exposure and Response Prevention (ERP) stands out as the top tier approach, for treating OCD when provided consistently with a focus on emotional support. It is essential for future research to give priority to incorporating fidelity assessments, implementing standardized therapist training and conducting long-term follow up assessments in order to better assess the lasting impact and generalizability of treatment results.

4.2. Internet-Based CBT and Digital Therapy

Kyrios and colleagues (2018) conducted a study to examine the effectiveness of therapist-assisted internet-based cognitive behavioral therapy (iCBT) in comparison to a control group receiving internet-based progressive relaxation training (iPRT) for managing obsessive compulsive disorder (OCD). The research involved 179 adults (66% female, mean age=33.4) all of whom were diagnosed with OCD according to established criteria. Participants were assigned randomly to one of two groups; iCBT or iPRT. They went through 12 online therapy sessions over a span of 12 weeks with email assistance from a qualified therapist for each participant to provide support and guidance which lasted about 15 minutes per week to ensure the program's effectiveness while maintaining its feasibility for participants.

The iCBT program included core elements of CBT like psychoeducation, exposure therapy, relapse prevention planning and response prevention (ERP). On the other hand, the iPRT condition acted as an active control group offering relaxation methods without involving exposure therapy or cognitive interventions. The severity of disorder symptoms was evaluated before and after treatment using the Yale-Brown Obsessive Compulsive Scale (Y-BOCS).

The findings revealed that iCBT resulted significantly in alleviation of symptoms compared to iPRT. Specifically, the iCBT group exhibited a decrease of 6.40 Y-BOCS units (Cohen's $d=1.05$) while the iPRT group only experienced a reduction of 2.90 units (Cohen's $d=0.48$). In addition, 49% of the individuals in the iCBT group demonstrated progress with 33% met criteria for reliable recovery improvement. Both surpassed the iPRT groups results (29% and 11% respectively). These findings highlight the benefit of structured cognitive and behavioral therapies in online treatment formats for OCD.

However, the research had some limitations. This includes depending on self-reported compliance with courses, lack of monitoring over time and possible variations in therapist communication that were not officially assessed for accuracy. With these restrictions Kyrios and colleagues (2018) present proof for the practical benefit of low intensity internet based cognitive behavioral therapy (iCBT) with therapist support as an initial or gradual care approach, for individuals dealing with OCD. Their results underscore the significance of blending ERP and cognitive restructuring into platforms for maximizing results while also underscoring the importance of research on the long term effectiveness of treatments and factors predicting engagement and fidelity in implementation.

4.3. Family based therapy

In the management of OCD cases, it was found that family participation is essential in alleviating symptoms severity and improving patient functioning as highlighted by Kobayashi et al.s (2020). They carried out a randomized controlled trial in Japan focusing on a family-based exposure and response prevention (FERP). Eighteen adult patients aged 18 to 65 years old along with their family members were randomly split into two groups, receiving either FERP plus treatment-as-usual (TAU) or TAU alone. The control group continued their usual psychiatric care but did not receive a structured family-based ERP program. The FERP program involved 16 sessions of behavioral therapy (CBT) with half sessions involving family members joining to assist in minimizing accommodating behaviors and providing support for home-based exposure and response prevention (ERP).

The study found that the FERP group experienced a significant decrease in OCD symptoms compared to the control group with a Hedges' g value of -1.58 for changes in Y-BOCS scores. Furthermore 55.6% of patients in the FERP group showed treatment response and 22% of them achieved remission while no similar results were observed in the control group. Secondary outcomes indicated improvements in depressive symptoms and overall functioning for the FERP group. Although alterations in family (such as FAS- SR and FAS- PV scores) are not statistically significant according to the study findings, the authors recommend that collaborative ERP planning that encourages communication during sessions could improve family involvement and decrease isolation.

While the study had its limitations, such as a small sample size and lack of long term follow up, it clearly emphasizes the importance of involving families in ways during OCD treatment. It points out

that encouraging families to be coaches rather than unintentional enablers can lead to better results, particularly, in societies where stigma and indirect communication could obstruct the healing process otherwise.

4.4. Combined therapy

Combined therapy is frequently recommended for treatment-resistant or complex pediatric OCD cases. In the Pediatric OCD Treatment Study II (POTS II), Franklin et al. (2011) conducted a randomized controlled trial lasting 12 weeks and involving 124 children and adolescents between the ages of 7 and 17 who had only shown improvement, with serotonin reuptake inhibitors (SRIs). Participants were randomly assigned to one of three groups. One group received medication management alone; another group received medication along with brief cognitive behavioral therapy (CBT) instructions; and the third group underwent medication combined with full cognitive behavioral therapy (14 sessions including ERP). The main result was the shift, in scores, on the Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS).

After completing the treatment program; 68.6 percent of individuals in the full CBT support group met the response criteria (≥ 30 percent decrease in CY-BOCS compared to 34 percent in the brief CBT guidance group and 30 percent in the medication only group. The combination of CBT and medication demonstrated the best results compared to using either treatment across all key measures and secondary outcomes with a substantial effect size of $d=0.85$. These findings emphasize that incorporating CBT with medication therapy leads to improved results especially, for young individuals experiencing persistent symptoms.

The research had some limitations, including its short time frame of 12 weeks and the absence of blinding or a placebo control group; however, it presents evidence supporting the importance of using ERP based CBT as a key element, in treating pediatric OCD effectively over solely relying on medication or brief instructional options.

4.5. Third wave therapies

In a case study, by Philip and Cherian in 2022, they discussed the case of a 33-year-old man who had struggled with OCD for a time and experienced heightened contamination fears and compulsive washing habits during the COVID 19 pandemic. The patient underwent eight weekly sessions of Acceptance and Commitment Therapy (ACT) alongside use of fluvoxamine medication. Progress was assessed using the Yale Brown Obsessive–Compulsive Scale (Y-BOCS). The Acceptance and Action Questionnaire II (AAQ- II). The patient's Y-BOCS score showed a shift, from 24 before treatment to 14 after treatment. Further dropped to 11 during the one month check up period. Additionally, his AAQ-II score went up from 20 to 42, signifying an improvement in psychological flexibility, which is a key focus of ACT therapy.

The authors highlighted that using defusion techniques along with mindfulness and actions based on values helped the patient in managing thoughts without getting emotionally overwhelmed and aligning more closely with their values in life. For instance, the exercise of imagining leaves floating down a stream and discussing concepts like a chessboard were effective in helping the detach from thoughts. Despite being doubtful about the approaches of Acceptance and Commitment Therapy (ACT), the patient discovered that embracing thoughts instead of trying to eradicate them actually lessened their impact. This study shows encouraging support for ACT in dealing with OCD; however, its conclusions are constrained by the character of individual case layouts and short term follow up periods. Nonetheless, it sheds light upon the usefulness of ACT as a potentially effective substitute for OCD treatment particularly when conventional approaches are not as well received.

In a study conducted by Zhang and colleagues in 2021, they carried out a controlled experiment to assess how mindfulness based cognitive therapy (MBCT) when compared to SSRIs and psychoeducation (PE) is, in treating unmedicated adults with mild to moderate OCD symptoms. The study involved 123 participants who were randomly assigned treatments; 28 participants completed the MBCT program as part of the research protocol. Outcomes were evaluated using the Yale–Brown

Obsessive Compulsive Scale (Y-BOCS). They assessed participants using the Five Facet Mindfulness Questionnaire (FFMQ). Participants were evaluated using scales for depression and anxiety (such as HAMD and HAMA) at the beginning of the study and after treatment as well as during follow up, at 1 month 3 months and 6 months.

The findings indicated that MBCT resulted in decreases in symptoms of OCD and an increase in mindfulness while also improving mood and anxiety symptoms gradually over time. Even though there was no group $\times$ time interaction effect on Y-BOCS scores observed during the study period; however, post treatment response rates were higher among those in MBCT compared to those, in the psychoeducation control group ($\chi^2=6.448$; $p=.04$). The researchers highlighted that MBCT assisted individuals in distancing themselves from thoughts and managing cognitive and emotional responses more effectively to promote better coping mechanisms. They determined that MBCT was deemed safe and acceptable for this group while showing promise in terms of effectiveness, to SSRIs as well as pointing out limitations such as the small size of the groups, with the absence of blinding design.

In a study by Petrocchi and colleagues (2021) they used multiple baseline designs to assess the effectiveness of an 8 week group therapy program focused on compassion for 8 adult individuals struggling with treatment resistant OCD despite prior extensive cognitive behavioral therapy (CBT). These participants had already undergone 6 months of CBT with exposure response prevention (ERP) yet still showed prominent symptoms. The study assessed outcomes using Yale Brown Obsessive–Compulsive Scale (Y-BOCS), the Self Compassion Scale (SCS), the Forms of Self Criticizing / Attacking and Self Reassuring Scale (FSCRS) and Fear of guilty scale (FOGS).

The findings indicated that all participants experienced decreases in Y-BOCS scores from the baseline assessment to post treatment assessment with substantial impact (Hedges' $g=1.10$). These enhancements were mostly maintained during a follow-up at 4 weeks post treatment evaluation period. It is worth noting that the intervention also resulted in reductions in self criticism and fear of guilt while fostering an increase in self-reassurance—an indication of direct influence on emotional aspects. However, the effects on depression levels and feelings of humanity varied, among individuals.

Although the study had a small sample size and lacked randomization, in treatment/control conditions, it pointed out the potential of CFT as an additional emotional approach, for patients still showing symptoms after undergoing traditional Cognitive Behavioral Therapy (CBT). The researchers stressed the importance of developing compassion towards thoughts and emotional distress to potentially decrease actions rooted in feelings of shame or self-criticism.

5. Discussion And Suggestion

Throughout the studies that were examined closely, a common theme that stands out is the changing perception of obsessive-compulsive disorder (OCD) not just as a condition related to cognitive and behavioral disturbances but also linked to emotional irregularities. Traditional models focused on compulsions as reactions to obsessions in order to reduce threats. Modern research suggests that compulsions also play a role in avoiding or escaping from aversive emotional states, like guilt and anxiety (Gagnani et al., 2022; Bischof et al., 2024).

Although exposure and response prevention (ERP) is considered the go-to therapy for OCD according to Abramowitz in 1996 and Song et al in 2022, studies indicate that treatment results can vary especially in individuals with lower awareness and poor ability to handle distress or other emotional issues alongside their condition. For example Xu et al in 2024, discovered that the ability to tolerate distress played a role in how self efficacy affects the outcomes of ERP suggesting that boosting patients emotional strength may improve their response to treatment. Likewise in the study published by Bhardawaj and colleagues (2022) it was found that people, with an understanding of themselves and higher confidence levels tended to have less severe symptoms and showed better progress in treatment plans. This emphasizes the importance of evaluating these qualities before starting any treatment regimen.

6. Conclusion

Contemporary methods, like Acceptance and Commitment Therapy (ACT) and Compassion-Focused Therapy (CFT) focus on the emotional aspects of OCD directly. ACT helps individuals embrace challenging thoughts and feelings while staying committed to behaviors aligned with their values instead of trying to get rid of unwanted internal experiences (Philip & Cherian, 2022). CFT aims to address feelings of shame, self-criticism and guilt, by promoting security and self-compassion as demonstrated in the work of Petrocchi et al. While both methods displayed showed decreases, in Yale- Brown Obsessive Compulsive Scale (Y-BOCS) scores, their study populations were small. The results are still, in the stages of investigation.

MBCT also contributes to the emotional focused aspect. It offers patients through fostering non-judgmental awareness and breaking away from repetitive thought patterns. Although Zhang et al. (2021) did not show changes in symptom scores over time due to MBCT treatment alongside therapies, the positive response rates and enhancements in mindfulness levels indicate the potential worth of MBCT, for individuals who may not respond well to SSRIs or conventional CBT approaches.

Research highlights the importance of delivery style and family environment alongside targeting treatment strategies for OCD. The Bergen 4 Day Treatment study (Hansen et al. 2019) showed that a focused approach like Exposure Response Prevention (ERP) coupled with enhancing distress tolerance through embracing anxiety directly can result in long term remission. (Kyrios et al., 2018) found that therapist supported online cognitive behavioral therapy structure can prove to be highly effective, as a treatment option for individuals with access to therapy settings. For youth, family-based interventions not only reduced symptoms but also highlighted the importance of parent modeling and emotional support in recovery (Kobayashi et al., 2020).

Despite these advances, there are still some limitations mentioned in the papers published so far that need to be considered carefully. The studies conducted have mostly used small sample sizes and short follow up periods. Even though emotional involvement was often talked about it was typically assumed based on the results than directly measured using emotion regulation scales or physiological data.

Future studies should concentrate on important aspects to improve the treatment of OCD. Firstly studies need to give importance to including multi-dimensional assessments, from dimensions like distress tolerance and self awareness from the beginning to enable personalized treatment planning. Furthermore, researchers should also think about integrating measures for emotion regulation as outcomes to gain an insight into the internal changes that come along with symptom improvement. Another important direction involves examining how different delivery formats—for instance, comparing frequent versus spaced updates and in-person versus remote contact—impact treatment effectiveness across diverse patient groups. Additionally, it is essential to assess the effectiveness of interventions that blend ERP with elements from therapies, like ACT or CFT aiming to better address the emotional vulnerabilities underlying compulsive behaviors.

Ultimately although ERP still remains foundational, improving its effectiveness might hinge on meeting the emotional and psychological adaptability requirements of those with OCD. Approaches that foster connection, empathy and actions guided by values offer hope for a long lasting improvement in treatment results.

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