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Comparing the efficacy of dialectical behavioral therapy and cognitive-behavioral therapy in extreme responsibility and clinical symptoms in obsessive-compulsive disorder patients

Roghayeh Dulab Nia[1]; *Narges Rasouli[2]; Hossein Mahdian[3]

[1]*PhD. student of counseling, Department of Psychology, Bojnord Branch, Islamic Azad University, Bojnord, Iran.*
[2]*Department of Psychology, TeMS.C.,Islamic Azad University, Tehran, Iran.*
[3]*Assistant professor, Department of Psychology, Bojnord Branch, Islamic Azad University, Bojnord, Iran.*

Abstract

Introduction: Obsessive-Compulsive Disorder (OCD) is a debilitating mental health condition. Two therapeutic approaches for treating OCD are Dialectical Behavior Therapy (DBT) and Cognitive-Behavioral Therapy (CBT). The aim of the present study was to compare these therapies on extreme responsibility and clinical symptoms in individuals with obsessive-compulsive disorder.

Materials and Methods: The statistical population consisted of those who referred to Arteman Psychological Center in Mashhad, Iran, in 2022, with diagnosis of obsessive-compulsive disorder. The sample included 45 people who were purposefully selected and randomly divided into three equal groups: dialectical behavior therapy, cognitive behavioral therapy, and control group. We used structured clinical interview to diagnose obsessive-compulsive disorder, Maudsley Obsessive Compulsive Inventory (MOCAI), and California accountability questionnaire. The data were analyzed using multivariate analysis of covariance and Bonferroni post hoc tests.

Results: The data analysis showed that both dialectical behavior therapy and cognitive behavioral therapy reduced the symptoms of obsessive-compulsive disorder ($P< 0.001$), and extreme responsibility ($P< 0.001$). While, cognitive behavioral therapy was more effective than dialectical behavior therapy ($P< 0.001$).

Conclusion: These results indicate the use of cognitive behavioral therapy and dialectical behavior therapy to reduce clinical symptoms of obsessive-compulsive disorder, and both treatments are promising as evidence-based interventions for patients with obsessive-compulsive disorder.

Keywords: Cognitive-behavioral therapy, Dialectical behavior therapy, Obsessive-compulsive disorder, Responsibility

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***Corresponding Author:**
Department of Psychology, TeMS.C., Islamic Azad University, Tehran, Iran.
nargesrasouli@iau.ac.ir
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Introduction

Obsessive-Compulsive Disorder (OCD) is a chronic and debilitating psychiatric illness. The OCD patients suffer from intrusive thoughts and repetitive, ritualistic behaviors (1). This disorder affects millions in worldwide, causing significant distress and impairment in daily functioning. The primary goal of treatment is to reduce symptoms and enhance the overall quality of life (2). In the United States, the lifetime prevalence of OCD is reported at 2.3%. In developed countries, the lifetime prevalence is 6.9%, while in developing countries, it stands at 5.8% (3). Recent findings from an Iranian study indicated that the prevalence of OCD among children and adolescents is 3.1% in boys and 3.8% in girls (4). Factors such as gender, age, living environment, and parental psychiatric history can predict the prevalence of this disorder (4). All these studies have utilized the criteria from the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). As of now, no studies have been published using the criteria from the latest edition of the DSM regarding the prevalence of OCD.

The symptoms and signs of OCD are various among different individuals. Common obsessions include fears of contamination, excessive doubt about safety or harm, a need for symmetry or precision, intrusive sexual or aggressive thoughts, and a fear of losing control. These obsessions often lead to intense anxiety and distress. Compulsions are typically performed as a means to alleviate the anxiety stemming from obsessions. These behaviors or mental acts are aimed at preventing harm, avoiding feared situations, or reducing distress. Common compulsions include excessive cleaning or handwashing, checking behaviors (such as repeatedly checking locks or appliances), counting or repeating rituals, arranging items in a specific order, and seeking reassurance from others. The cycle of OCD usually begins with the emergence of obsessive thoughts that generate anxiety and distress. To alleviate this discomfort, individuals engage in compulsive behaviors or mental rituals that provide temporary relief. However, this relief is short-lived, and obsessions and compulsions tend to recur, perpetuating the cycle (5).

OCD symptoms may significantly lead to daily dysfunction and quality of life. The time and energy consumed by obsessions and compulsions can be overwhelming, often leading to difficulties in relationships, work, or school, and overall well-being. OCD patients may struggle with feelings of shame, guilt, and embarrassment as they recognize that their obsessions and compulsions are irrational (6).

A specific aspect of OCD that has gained attention in recent years is extreme responsibility (7-9), characterized by an exaggerated sense of personal responsibility for preventing harm or negative outcomes (10). This cognitive distortion often leads to excessive compulsive behaviors as individuals attempt to neutralize perceived threats. Understanding the scope and impact of OCD symptoms is crucial for the effective diagnosis, treatment, and support of affected individuals. Addressing obsessions and compulsions through evidence-based treatments, such as Cognitive-Behavioral Therapy (CBT) and Dialectical Behavior Therapy (DBT), help patients to regain control over their lives and reduce the distress associated with OCD symptoms.

CBT has long been regarded as the gold standard treatment for OCD (11,12). This therapy focuses on identifying and challenging irrational thoughts and beliefs, as well as implementing exposure and response prevention techniques to decrease compulsive behaviors. CBT has shown promising results in reducing OCD symptoms, with many individuals experiencing significant improvements in their condition (13).

The recent studies indicated the potential benefits of DBT as an alternative treatment approach for OCD (14,15). DBT originally developed for borderline personality disorder, and combines cognitive-behavioral techniques with mindfulness elements and acceptance-based strategies. Its core principles include emotion regulation, distress tolerance, interpersonal effectiveness, and mindfulness practices, which may offer unique advantages for individuals with OCD (16).

Given the potential efficacy of both CBT and DBT, comparing their effects on extreme responsibility and clinical symptoms in OCD patients is essential. By understanding the distinct therapeutic mechanisms of each approach, mental health professionals can make informed decisions about the most appropriate treatment options for their patients. This paper aims to compare the efficacy of CBT and DBT in extreme responsibility and clinical symptoms OCD patients.

Materials and Methods

The study population consisted of all patients diagnosed with OCD who visited the Arteman Counseling Center in Mashhad during the spring and summer of 2022. To determine the sample size, we used Cochran's formula. The calculated sample size was approximately 45 participants. The participants were selected through purposive sampling. Inclusion criteria included having a confirmed diagnosis of OCD by a psychiatrist or clinical psychologist, age between 18 and 65 years, and absence of psychotic disorders or substance abuse.

Exclusion criteria included unwillingness to participate or failure to complete the therapy sessions. The 45 participants were randomly assigned to three groups (15 participants per group).

Research instruments

A) Structured Clinical Interview for DSM-5 Disorders (SCID-5-CV): This standardized diagnostic tool is used to assess and diagnose various mental disorders based on the criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders. The clinical version of the Structured Clinical Interview is specifically designed for use in clinical settings. It includes additional questions to provide more detailed information about symptoms and related disorders.

The clinical version of the Structured Clinical Interview ensures a systematic, reliable, and valid approach to diagnosing mental disorders. It helps in accurately diagnosing patients, thus providing an effective starting point for treatment planning and intervention (17). This version was translated into Persian by Sharifi et al. investigated the feasibility and reliability of the previous version in the Iranian population. Their findings showed acceptable reliability of diagnoses made with the Persian version of SCID and its satisfactory feasibility (kappa greater than 0.6). Most interviewees and interviewers reported its feasibility as favorable (18).

B) Maudsley Obsessive-Compulsive Questionnaire: This questionnaire is used to diagnose various types of obsessive-compulsive symptoms. It contains 30 dichotomous items (true and false) in four subscales: checking (9 items), washing (11 items), slowness-repetition (7 items), and doubt (7 items). Each item receives a score of 0 or 1. The total scale score ranges from 0 to 30, with higher scores indicating more severe obsessions. The test-retest reliability is reported as 0.80 and the internal consistency is reported between 0.70 and 0.80 (19). The validity and reliability of the Persian version of this questionnaire were calculated using internal consistency for the total questionnaire and the subscales of checking, washing, slowness-repetition, and doubt, and were confirmed with Cronbach's alpha of 0.78, 0.93, 0.99, 0.85, and 0.89, respectively (20).

C) California Responsibility Scale: This scale consists of 42 questions designed to measure the level of responsibility in individuals aged 12 and older. Participants respond to the questions with "agree" or "disagree."

The responsibility scale was developed to measure traits such as conscientiousness, sense of commitment, hard work, seriousness, reliability, and adherence to rules and regulations. The range of test-retest coefficients for this scale is reported as 0.53 to 0.80. In Iran, Cronbach's alpha and Guttman reliability of the scale were reported as 0.69, 0.79, and 0.69, respectively (21).

Summary of therapeutic sessions

Dialectical behavior therapy

In this study, the Linehan Dialectical Behavior Therapy protocol was used (22). The treatment program included 12 ninety-minute sessions conducted over 12 consecutive weeks, in a group format. The content of sessions focused on:

-Introducing clients to mindfulness and enhancing skills

- Explaining the benefits of mindfulness
- Describing useful techniques for mental focus
- Enhancing mindfulness skills, including:

1. Actions to achieve comprehensive mindfulness (observing, describing, and participating)
2. How to perform these actions (adopting a non-judgmental stance, acting mindfully and effectively)

-Teaching distress tolerance skills, crisis survival strategies, and acceptance of reality

- Explaining emotional model structure

-Training in present-moment awareness regarding current emotional states

-Teaching emotional regulation, including identifying emotions, reducing vulnerability to negative emotions, and increasing positive emotional events

-Teaching how to change emotions through opposite action

-Providing acceptance skills (radical acceptance, turning the mind, and mindfulness)

- Teaching distraction strategies

Cognitive behavioral therapy

In this study, the protocol developed by Jones et al. was utilized for cognitive behavioral therapy (23). The treatment program consisted of 11 ninety-minute sessions, conducted over 11 consecutive weeks in a group setting. The content of sessions included:

- Creating a hierarchy of obsessive thoughts and avoidance situations
- Reducing intrusive thoughts
-Engaging in imaginative exposure to the hierarchy's triggers and assisting clients in stopping compulsive behaviors
- Increasing control over thoughts and feelings
-Confronting situations that trigger emotions, fear, guilt, and contamination
-Providing exposure techniques, including exposure with response prevention (experiencing obsessive thoughts without avoidance or neutralizing)
-Reducing compulsive behaviors, practicing exposure techniques, and monitoring barriers to response prevention
-Evaluating homework task avoidance, reviewing thought records, and writing pros and cons of intrusive thoughts
-Replacing obsessive thoughts with rational thoughts
- Conducting behavioral experiments to test the significance of thoughts and cognitive beliefs

We analyzed the data using multivariate analysis of covariance and Bonferroni post hoc tests.

Results

In this study, 45 patients were involved across two experimental groups and a control group. Each group consisted of 15 individuals, with an age range of 20 to 50 years, including 21 women and 24 men. Among them, 15 were single and 30 were married.

Educational backgrounds varied: 2 had below high school, 6 had a high school diploma, 1 had an associate degree, 17 had a bachelor's degree, 15 had a master's degree, and 4 held a doctorate. The mean and standard deviation of the scores related to clinical symptoms and extreme responsibility are presented in Table 1.

Table 1. Descriptive statistics

Variable	Stage	DBT		CBT		Control	
		Mean	SD	Mean	SD	Mean	SD
OCD symptoms	Pre-test	25.26	2.01	24.46	1.55	24.80	2.07
	Post-test	21.06	2.40	17.46	1.18	25.26	1.48
Extreme responsibility	Pre-test	33.26	3.69	30.40	6.56	33.60	3.97
	Post-test	29.60	3.31	24.40	4.93	32.86	5.04

To examine the differences in the scores of the variables, multivariate analysis of covariance (MANCOVA) was used (Table 2). Before conducting MANCOVA, the assumptions, including normal distribution of data, homogeneity of regression slopes, homogeneity of variance-covariance matrices, and equality of variances of the research variables, were verified.

Table 2. The results of multivariate analysis of covariance

Source	Variable	Sum of squares	Degrees of freedom	Mean squares	F	P	Effect size
Group (post-test)	OCD symptoms	391.10	2	403.39	24.605	0.001	0.941
	Extreme responsibility	226.23	2	682.03	387.94	0.001	0.953

As shown in Table 2, there was a significant difference in the post-test scores, indicating that there was at least one difference among the groups. To further investigate and determine the location of the differences among the groups, we used the Bonferroni post hoc test (Table 3).

Table 3. Bonferroni Post Hoc test

Variable (post-test)	Group (1)	Group (2)	Adjusted mean difference	Standard error	P
OCD symptoms	DBT	CBT	3.088	0.464	0.001
		Control	4.432	0.458	0.001
	CBT	DBT	3.088	0.464	0.001
		Control Group	7.520	0.461	0.001
	Control	DBT	4.432	0.458	0.001
		CBT	7.520	0.461	0.001
Extreme responsibility	DBT	CBT	2.724	0.629	0.001
		Control	3.029	0.621	0.001
	CBT	DBT	2.724	0.629	0.001
		Control	5.753	0.626	0.001
	Control	DBT	3.029	0.621	0.001
		CBT	5.753	0.626	0.001

The findings from the Bonferroni post hoc test indicated significant differences between the mean scores of the variables in all three groups (P= 0.001). Additionally, the results suggested that cognitive behavioral therapy was more effective than dialectical behavior therapy in reducing obsessive-compulsive disorder symptoms and extreme responsibility.

Discussion

This study aimed to compare the effectiveness of DBT and CBT in excessive responsibility and clinical symptoms in OCD patients. The results demonstrated that both DBT and CBT were effective in reducing OCD symptoms and extreme responsibility, with CBT showing greater effectiveness compared to DBT. These findings align with prior research supporting the efficacy of both therapies for OCD, yet the direct comparison provides novel insights into their relative impact.

Comparative analysis with existing studies reveals both consistencies and distinctions. Kathmann et al. investigated individual CBT in adult OCD patients, employing a methodology that included pre- and post-treatment assessments with the Yale-Brown Obsessive Compulsive Scale (Y-BOCS). Their results indicated a significant reduction in OCD symptoms, consistent with the current finding related to the effectiveness of CBT. However, their use of individual rather than group therapy and an unspecified sample size limits direct comparability to our study, which involved 45 participants (15 per group) in a group format over 11-12 weeks (13). Amani and Abolghasemi examined group DBT in an OCD population, using a group intervention approach similar to ours. They reported improvements in emotional recognition strategies and reduced OCD symptoms, aligning with our finding that DBT is effective, though less so than CBT (14). Ahovan et al. also studied DBT efficacy for OCD, finding reductions in clinical signs, but specific details on population size and methodology were not detailed, making precise comparisons challenging (24). Garamaleki and Moheb explored CBT for anxiety disorders—a related but distinct condition—using a sample of individuals with anxiety, and found reductions in rumination and worry, which are relevant to OCD symptom profile (25).

The superior effectiveness of CBT in this study may be attributed to its targeted focus on OCD-specific cognitive distortions and behaviors, such as through cognitive restructuring and exposure and response prevention techniques (11). DBT, emphasizing emotional regulation and interpersonal effectiveness (16), may not address these OCD-specific features as directly, though it remains valuable, particularly for individuals with co-occurring emotional dysregulation issues (25). A key contribution of this study is its focus on extreme responsibility, a critical cognitive distortion in OCD (7-9). The greater impact of CBT on reducing this factor highlights its strength in targeting OCD-specific cognitive patterns. However, individual differences and preferences should guide treatment selection, as some participants may benefit more from DBT emotional regulation focus, especially those with comorbidities like borderline personality disorder.

This study has several limitations. The sample size of 45 participants is relatively small, potentially limiting generalizability. It did not compare DBT and CBT to other established OCD treatments, such as exposure

and response prevention or acceptance and commitment therapy, which are also effective (26,27). Reliance on self-report measures (e.g., Maudsley Obsessive-Compulsive Inventory) may introduce bias, and the study assessed only short-term outcomes, leaving long-term effects unexamined. Additional limitations include potential therapist effects, unmeasured group dynamics, and lack of data on homework completion or engagement differences between groups.

Future research could address these by conducting larger sample size studies with diverse populations, incorporating biological or behavioral measures, and comparing group versus individual therapy formats. Investigating therapist experience, treatment fidelity, and long-term follow-ups could further enhance understanding the efficacy of these therapies. In summary, this study underscores superiority of the effectiveness of CBT over DBT for reducing OCD symptoms and extreme responsibility, while affirming utility of DBT, particularly for emotionally dysregulated individuals.

Conclusion

This study found that both dialectical behavior therapy and cognitive behavioral therapy were effective in reducing extreme responsibility and clinical symptoms in individuals with obsessive-compulsive disorder. However, cognitive behavioral therapy was more effective than dialectical behavior therapy in achieving these outcomes.

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Conflict of Interest

The authors declare no conflicts of interest.

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Ethical Considerations

This study is based on a Ph.D. dissertation approved by Islamic Azad University, Bojnord branch. All participants provided informed consent.

Code of Ethics

IRCT20241004063252N1, IR.IAU.BOJNOURD.REC.140.020

Authors' Contributions

All authors contributed equally to the study conduction and preparation of this manuscript.

References

1. Remmerswaal KC, Batelaan NM, Hoogendoorn AW, van der Wee NJ, van Oppen P, van Balkom AJ. Four-year course of quality of life and obsessive–compulsive disorder. Soc Psychiatr Psychiatr Epidemiol 2020; 55: 989-1000.
2. Żerdziński M, Burdzik M, Żmuda R, Witkowska-Berek A, Debski P, Flajszok-Macierzyńska N, et al. Sense of happiness and other aspects of quality of life in patients with obsessive-compulsive disorder. Front Psychiatry 2022; 13: 1077337.
3. Almutairi AM, Aladhadh KM, Alsayed SA, Alhuwairini FF, Alzuwayed AM, Agha S. Prevalence of obsessive-compulsive disorder symptoms among medical students. International journal of medicine in developing countries 2021; 5(5): 1183-7.
4. Mohammadi MR, Ahmadi N, Hooshyari Z, Khaleghi A, Yazdi FR, Mehrparvar AH. Prevalence, comorbidity, and predictors of obsessive-compulsive disorder in Iranian children and adolescents. J Psychiatr Res 2021; 141: 192-8.
5. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Washington, D.C.: American Psychiatric Association; 2022.
6. Jensen S, Hybel KA, Højgaard DR, Nissen JB, Weidle B, Ivarsson T, et al. Quality of life in pediatric patients with obsessive-compulsive disorder during and 3 years after stepped-care treatment. Eur Child Adolesc Psychiatry 2022; 31(9): 1377-89.
7. Mathieu SL, Conlon EG, Waters AM, McKenzie ML, Farrell LJ. Inflated responsibility beliefs in paediatric OCD: Exploring the role of parental rearing and child age. Child Psychiatry Hum Dev 2020; 51: 552-62.
8. Sharma E, Tripathi A, Grover S, Avasthi A, Dan A, Sharma M, et al. Association of insight, avoidance behavior, indecisiveness, and inflated responsibility with other clinical characteristics in children and adolescents with obsessive-compulsive disorder. Braz J Psychiatry 2020; 43(2): 160-7.
9. Cludius B, Mannsfeld AK, Schmidt AF, Jelinek L. Anger and aggressiveness in obsessive-compulsive disorder (OCD) and the mediating role of responsibility, non-acceptance of emotions, and social desirability. Eur Arch Psychiatry Clin Neurosci 2021; 271(6): 1179-91.
10. Jassi A, Shahriyarmolki K, Taylor T, Peile L, Challacombe F, Clark B, et al. OCD and COVID-19: A new frontier. Cogn Behav Therap 2020; 13: e27.

11. Spencer SD, Stiede JT, Wiese AD, Goodman WK, Guzick AG, Storch EA. Cognitive-behavioral therapy for obsessive-compulsive disorder. Psychiatr Clin North Am 2023; 46(1): 167-80.
12. Spencer SD, Stiede JT, Wiese AD, Goodman WK, Guzick AG, Storch EA. Cognitive-behavioral therapy for obsessive-compulsive disorder. Psychiatr Clin North Am 2022; 46(1): 167.
13. Kathmann N, Jacobi T, Elsner B, Reuter B. Effectiveness of individual cognitive-behavioral therapy and predictors of outcome in adult patients with obsessive-compulsive disorder. Psychother Psychosom 2022; 91(2): 123-35.
14. Amani M, Abolghasemi A. [The effectiveness of group training of dialectical behavior therapy concepts on improvement of emotional recognition strategies and decrease of obsessive-compulsive disorder (OCD)]. Clinical psychology and personality 2020; 14(2): 125-34. (Persian)
15. Stein MB, Nyer M. Dialectical behavior therapy and cognitive behavioral therapy techniques on a general psychiatric inpatient unit. The Massachusetts general hospital handbook of cognitive behavioral therapy. New York: Springer; 2023: 437-53.
16. Sotsky J, Brodsky BS. Dialectical behavioral therapy. In: Tasman's psychiatry. Cham: Springer International Publishing; 2024: 3693-716.
17. First MB, Williams JBW, Karg RS, Spitzer RL. User's guide for the SCID-5-CV Structured Clinical Interview for DSM-5® disorders: Clinical version. Arlington, VA: American Psychiatric Association Publishing; 2016.
18. Sharifi V, Asadi SM, Mohammadi MR, Amini H, Kaviani H, Semnani Y, et al. [Reliability and feasibility of the Persian version of the Structured Diagnostic Interview for DSM-IV (SCID)]. Advances in cognitive sciences 2004; 6(1): 10-22. (Persian)
19. Lefebvre A, Cohen A, Maruani A, Amsellem F, Beggiato A, Amestoy A, et al. Discriminant value of repetitive behaviors in families with autism spectrum disorder and obsessional compulsive disorder probands. Autism Res 2021; 14(11): 2373-82.
20. SoleimanvandiAzar N, Amirkafi A, Shalbafan M, Ahmadi SA, Asadzandi S, Shakeri S, et al. Prevalence of obsessive-compulsive disorders (OCD) symptoms among health care workers in COVID-19 pandemic: A systematic review and meta-analysis. BMC Psychiatry 2023; 23(1): 862.
21. Ahovan M, Jajarmi M, Bakhshipoor A. [Comparing the effectiveness of Schema Therapy (ST) and Emotional Schema Therapy (EST) on clinical syndromes of individuals with Obsessive-Compulsive Symptoms (OCS)]. Avicenna journal of nursing and midwifery care 2020; 28(3): 239-50. (Persian)
22. Linehan MM. Skills training manual for treating borderline personality disorder. New York: Guilford; 1993.
23. Nordgren LB, Ludvigsson M, Silfvernagel K, Törnhage L, Sävås L, Söderqvist S, et al. Tailored internet-delivered cognitive behavior therapy for depression in older adults: A randomized controlled trial. BMC Geriatr 2024; 24(1): 1-2.
24. Ahovan M, Balali S, Shargh NA, Doostian Y. Efficacy of dialectical behavior therapy on clinical signs and emotion regulation in patients with obsessive-compulsive disorder. Mediterranean journal of social sciences 2016; 7(4): 412.
25. Taghavi Garamaleki M, Moheb N. [The effectiveness of cognitive behavioral therapy on rumination, worry and anxiety sensitivity in people with anxiety disorders]. Journal of instruction and evaluation 2021; 14: 13-29. (Persian)
26. Borjali A, Bagiyan MJ, Yazdanpanah MA, Rajabi M. [The effectiveness of group mindfulness-based cognitive therapy on obsessive-compulsive disorder, metacognition beliefs and rumination]. Clinical psychology studies 2015; 6: 133-61. (Persian)
27. Clark DA. Cognitive-behavioral therapy for OCD. New York: Guilford; 2006.