






# Comparison of the Effectiveness of Cognitive-Behavioral Therapy and Short-Term Psychodynamic Therapy on Cognitive Fusion and Obsessive-Compulsive Symptoms in Individuals with Obsessive-Compulsive Disorder

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## ABSTRACT

The aim of this study was to compare the effectiveness of cognitive-behavioral therapy (CBT) and short-term psychodynamic therapy (STPP) in reducing cognitive fusion and obsessive-compulsive symptoms in individuals with obsessive-compulsive disorder (OCD). This semi-experimental study employed a pretest-posttest design with a follow-up phase. The statistical population included individuals with OCD who sought treatment at all counseling and psychological service centers in Birjand from April to December 2023. Sixty participants were purposively selected based on Cohen's table and were randomly assigned to two experimental groups and one control group. The first experimental group received 10 sessions of cognitive-behavioral therapy, while the second experimental group received 11 sessions of short-term psychodynamic therapy. The control group did not receive any intervention during this period. Data were collected using the Cognitive Fusion Questionnaire by Gillanders et al. (2010) and the Obsessive-Compulsive Scale by Hodgson and Rachman (1977) at three stages: pretest, posttest, and follow-up. Repeated measures ANOVA was used for data analysis. The results indicated that both cognitive-behavioral therapy and short-term psychodynamic therapy significantly reduced cognitive fusion and obsessive-compulsive symptoms at the posttest stage ( $p < .05$ ), and the therapeutic effects were maintained after three months. However, no significant difference was observed between the effectiveness of cognitive-behavioral therapy and short-term psychodynamic therapy in reducing cognitive fusion and obsessive-compulsive symptoms in individuals with OCD ( $p > .05$ ). Based on the findings, there is no difference in the effectiveness of cognitive-behavioral therapy and short-term psychodynamic therapy in addressing cognitive fusion and obsessive-compulsive symptoms in individuals with OCD. Both approaches can be used to reduce and manage cognitive fusion and obsessive-compulsive symptoms in affected individuals.

**Keywords:** Cognitive-Behavioral Therapy, Short-Term Psychodynamic Therapy, Cognitive Fusion, Obsessive-Compulsive Disorder.

## 1. Introduction

Obsessive-Compulsive Disorder (OCD) is a chronic and debilitating disorder characterized by thoughts, impulses, or images that provoke fear or worry, accompanied by behavioral or mental activities that individuals feel compelled to perform in a repetitive and systematic manner to reduce the fear or prevent dreadful outcomes (1, 2). Obsessive thoughts and compulsive behaviors are typically performed in response to the obsession. OCD is diagnosed when obsessive thoughts or compulsive behaviors significantly cause anxiety or are time-consuming. Previous editions of the Diagnostic and Statistical Manual of Mental Disorders classified OCD as an anxiety disorder (3). However, OCD is now considered pathologically distinct from anxiety disorders. Therefore, in the fifth edition of the DSM, OCD was separated from anxiety disorders and categorized into a distinct class along with related disorders (4).

Reducing OCD symptoms is a critical area of psychological research. Many researchers in the field of OCD symptoms have demonstrated that individuals with OCD have cognitive fusion in the realm of metacognitive beliefs (5). Cognitive fusion refers to the tendency to become entangled with one's thoughts, where transient mental events are perceived as real and tangible (6). In other words, when individuals become fused with their thoughts, they tend to respond to them as if they were reality or truth (7). Cognitive fusion is a core factor in the formation and maintenance of various psychological disorders (8). Cognitive fusion causes patients to interpret their thoughts and feelings as real, exacerbating negative psychological experiences and decreasing their psychological flexibility, leading to mental health problems. Research on cognitive fusion and mental health has focused on factors such as negative affect, psychological distress, anxiety disorders, and depression. For instance, cognitive fusion is reported as a significant factor in the onset of psychological disorders (9). J. William, Cartwright-Hatton, and Wells demonstrated a significant positive relationship between thought-fusion beliefs and OCD symptoms. These metacognitive beliefs can influence the onset, severity, and persistence of OCD symptoms, categorized into three areas: thought-action fusion, thought-event fusion, and thought-object fusion. Thought-action fusion is the belief that intrusive thoughts, feelings, or

impulses alone can compel a person to perform unwanted acts. Thought-event fusion is the belief that having an intrusive thought alone can cause a specific event to occur or that having a thought implies that an event has already happened. Thought-object fusion is the belief that thoughts and feelings can transfer to objects, making them seem more real, powerful, and inevitable or causing their destruction (10).

Obsessive symptoms are another consequence of OCD. Obsessions are unwanted, intrusive, and persistent thoughts, urges, or images often associated with highly sensitive psychological areas of the affected individual (such as sexuality, religiosity, or cleanliness). In some cases, obsessive thoughts complicate or disrupt normal thinking processes, causing severe anxiety. Compulsions are repetitive physical or mental acts aimed at reducing the anxiety provoked by obsessions. These acts, though simple (like cleaning, checking, or touching), can become complex and time-consuming rituals (11). Obsessive symptoms are a psychological disorder characterized by intrusive thoughts and the compulsion to perform rituals to relieve distress. More precisely, obsessions are persistent mental activities or images that are distressing or anxiety-provoking, prompting individuals to attempt to suppress or neutralize them with other thoughts or actions (e.g., avoidance or thought suppression). Compulsions are repetitive behaviors or mental acts that individuals feel compelled to perform in response to an obsession (12).

Over the years, various treatments have emerged for individuals with OCD and cognitive fusion-related disorders. Research on pharmacotherapy has shown that medication alone does not suffice in treating OCD, with many patients expressing negative attitudes toward medication (13). Due to the limitations of pharmacotherapy, psychological approaches have become crucial in treating OCD, and different interventions have been proposed to manage this disorder. However, the effectiveness, ease of implementation, and durability of treatment outcomes must be considered. Studies indicate that behavioral therapy significantly improves OCD but comes with limitations, including patients' dislike and premature discontinuation of therapy (10, 14, 15). Furthermore, behavioral therapy is less effective for treating obsessions. Consequently, researchers have emphasized cognitive interventions. Cognitive-

behavioral therapy (CBT) has become a focus of attention, emphasizing that obsessions result from the "catastrophic misinterpretation of the significance" of intrusive thoughts, images, or impulses, persisting until these misinterpretations are corrected. Studies reveal that CBT accelerates immediate therapeutic outcomes, significantly reduces symptoms, and lowers the risk of relapse. Additionally, newer psychological treatments, such as metacognitive therapy, have also been explored for OCD management, with studies indicating that altering patients' beliefs and thoughts directly reduces OCD symptoms (13).

CBT is one of the therapeutic approaches used to manage and treat OCD symptoms. Cognitive-behavioral therapy (CBT) is a short-term, present-focused psychotherapy based on the idea that an individual's thoughts and feelings influence their behavior (McCullough, 2017). CBT focuses on problem-solving and aims to change the client's thought patterns to alter their responses to challenging situations. This approach is applicable to various mental health issues (15).

CBT has been proven effective for children, adolescents, adults, families, and couples in treating depression, OCD, generalized anxiety disorder, post-traumatic stress disorder, generalized anxiety, panic disorder, agoraphobia, social phobia, eating disorders, marital issues, and anxiety and depression in children. It may also be effective as an intervention for chronic pain and related distress (13). Thus, CBT is a promising treatment for reducing OCD symptoms (14). Over the past four decades, the cognitive-behavioral model has provided valuable insights into how cognition impacts psychological well-being, leading to techniques for treating various disorders, including OCD (10).

Another treatment for individuals with OCD is short-term psychodynamic psychotherapy (STPP). STPP encompasses a range of psychotherapeutic techniques rooted in Freud's theoretical model (16). This approach involves exploring the individual's understanding and insight into relationships, emotions, and the background of their choices (17). STPP is so named because it, like traditional psychotherapy, emphasizes analyzing real emotional experiences, overcoming resistance, and paying close attention to transference phenomena (18). Given the multidimensional nature of OCD and its various subtypes, future research may investigate different treatments for each subtype.

Furthermore, identifying effective short-term therapeutic approaches is a pressing need in the research domain (13). A significant aspect of STPP is its emphasis on the therapeutic relationship. The therapist's active stance and skillful use of techniques facilitate the client's rapid recognition and experience of deep emotions and thoughts, fostering a genuine and authentic therapeutic interaction (19). STPP is crucial not only for alleviating symptoms and restructuring personality in a shorter time frame than psychoanalysis but also for enhancing the patient's continuous self-awareness, extending its impact beyond mere symptom relief (20).

Like CBT, STPP posits that OCD stems from biased thinking patterns. However, STPP focuses on a specific thinking style called the cognitive-attentional syndrome, characterized by excessive verbal thinking, persistent worry, and rumination (18, 21). The cognitive-attentional syndrome is problematic because it causes patients to place undue importance on their thoughts, heightening their sense of threat. Fischer and Wells conducted a study examining the effectiveness of CBT for OCD. Their findings showed significant improvement in each participant, both at the end of treatment and at the six-month follow-up. Research on the efficacy of CBT in reducing OCD symptoms has demonstrated its significant impact on improving this disorder and reducing cognitive fusion in affected individuals (21). Furthermore, studies have indicated a meaningful relationship between CBT and STPP in reducing cognitive fusion and obsessive symptoms in individuals with OCD (10). Given these findings, the primary research question is: Which treatment approach—CBT or STPP—is more effective in reducing cognitive fusion and obsessive symptoms in individuals with OCD?

## 2. Methods and Materials

### 2.1. Study Design and Participants

This study is applied in nature and employs a semi-experimental design (pretest-posttest with a control group and follow-up) to compare the effectiveness of cognitive-behavioral therapy (CBT) and short-term psychodynamic psychotherapy (STPP) on cognitive fusion and obsessive-compulsive symptoms. Protocols for both CBT and STPP were utilized. The research design involved three groups (two experimental groups and one control group) across

three phases: pretest, posttest, and a three-month follow-up. The sample was randomly assigned to three groups and administered a pretest. The first experimental group received CBT, the second experimental group received STPP, and the control group was placed on a waitlist. All groups were given a posttest at the end of the intervention period, and a follow-up assessment was conducted three months later.

Before administering the questionnaires, ethical principles were observed, including confidentiality, obtaining informed consent from participants, ensuring that data would not be shared with third parties, and creating a friendly and reassuring environment. Participants were informed that their participation was voluntary and that they could withdraw at any time. Following diagnostic interviews and pretests, 60 participants were randomly assigned equally to the experimental and control groups (20 participants per group). The experimental groups received CBT and STPP, while the control group received no intervention. Posttests were administered after the intervention sessions, and a follow-up assessment was conducted three months later.

## 2.2. Measures

### 2.2.1. Cognitive Fusion

Developed by Gillanders et al. (2010), this questionnaire contains 16 items and measures two components: cognitive fusion and defusion. Each item is rated on a six-point Likert scale (e.g., “Even when distressing thoughts come to mind, I know they will eventually become insignificant”). Gillanders et al. (2010) reported a Cronbach’s alpha coefficient of .83. Zare (2014) evaluated the questionnaire’s validity, with a reported Cronbach’s alpha coefficient above .70. In Karami et al. (2021), the Cronbach’s alpha was reported at .78. Additionally, Qasemzadeh, Khamesh, and Ebrahimkhani (2005) confirmed the questionnaire’s validity. The Cronbach’s alpha coefficient for this study was .74.

### 2.2.2. Obsessive-Compulsive Disorder Symptoms

The Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) by Hodgson and Rachman (1977) is a validated tool for assessing the severity of OCD symptoms and treatment effectiveness. This 10-item self-report scale measures the distress and impairment caused by obsessive and compulsive symptoms, along with the patient’s resistance and control

over them. Each item is scored from 0 (no symptoms) to 4 (extreme symptoms), with overall scores categorized as follows: 0–7 (subclinical), 8–15 (mild), 16–23 (moderate), 24–31 (severe), and 32–40 (extreme). The scale’s reliability is above .80, with Cronbach’s alpha coefficients ranging from .69 to .91. Dadfar et al. (2001) reported a Cronbach’s alpha of .89, while Chini Foroushan (2017) reported .70 (3). In this study, the Cronbach’s alpha coefficient was .75.

## 2.3. Interventions

### 2.3.1. CBT

The CBT session protocol for OCD patients was adapted from Wilhelm and Steketee (2006), as cited in Asgharipour, Negar; Behfar, Zahra, and Karimi (2011). It consisted of 10 ninety-minute sessions conducted over 10 weeks (14).

Session 1: Conduct an initial assessment using the Padua Inventory and Thought Fusion Questionnaire, introduce OCD symptoms, explain the goals of cognitive-behavioral therapy (CBT), and provide a list of common intrusive thoughts experienced by the general population. End with relaxation exercises to reduce anxiety.

Session 2: Present the cognitive model of OCD and normalize obsessive thoughts, introduce the cognitive triangle, explain common cognitive distortions, and provide a daily thought recording form. Discuss the significance of thought fusion and perform behavioral experiments to illustrate these concepts.

Session 3: Apply Socratic questioning and review the 5-column thought record, then transition to the 7-column thought record. Have patients list the pros and cons of intrusive thoughts and perform a behavioral experiment to challenge the perceived importance of these thoughts.

Session 4: Review daily thought records, conduct behavioral experiments focused on neutralization of thoughts, and use techniques like probability estimation and Socratic questioning to challenge beliefs about overestimated danger. Plan additional behavioral experiments for beliefs related to certainty-seeking.

Session 5: Use Socratic questioning along with techniques like the pie chart and double standard method to address excessive responsibility beliefs, introduce the concept of perfectionism, and use the downward arrow

technique to explore underlying beliefs. Develop new behavioral experiments for thought significance.

Sessions 6-9: Implement exposure and response prevention (ERP) techniques, guiding patients through real-life practice during sessions and assigning homework. Review daily thought records and continue to design behavioral experiments that challenge the importance of intrusive thoughts, with therapist support and feedback.

Session 10: Summarize and review all cognitive and behavioral techniques taught, revisit the OCD cognitive model, and discuss the importance of continued practice to prevent relapse. Teach problem-solving skills, discuss potential relapse signs, and reassess the patient using the initial inventories.

### 2.3.2. STPP

The content of the sessions followed the STPP manual, described in detail below (18-20).

Session 1: Outline therapy rules and structure and conduct an initial interview using a psychodynamic sequence called "experimental acting" to assess primary OCD issues, allowing the patient to express initial symptoms.

Session 2: Encourage the patient to describe symptoms more explicitly, applying pressure to move from vague to detailed accounts. Begin working with various defense mechanisms and implement targeted interventions for each type, such as challenging indirect speech and rationalization.

Session 3: Address defenses like mental rumination and rationalization through clarification, direct requests for concrete answers, and blocking defenses when necessary, helping the patient become aware of maladaptive thinking patterns.

Session 4: Focus on defense mechanisms like generalization and overgeneralization, using techniques to clarify and challenge these cognitive distortions. Work to block defenses and specify how they interfere with accurate understanding and emotional processing.

Session 5: Manage distraction and avoidance tactics by doubting and challenging the patient's defenses, redirecting focus to underlying emotions. Address denial and externalization by confronting these mechanisms and clarifying the impact of their defenses.

Session 6: Tackle defenses like somatization and emotional acting out by clarifying how these manifest in behavior and bodily reactions. Address rebellious or regressive behaviors by confronting them directly, exploring resistance, and deepening emotional awareness.

Session 7: Identify nonverbal signs and passive compliance as defenses, clarifying these behaviors and exploring unconscious processes. Use techniques to challenge avoidance and engage the patient in recognizing and processing repressed feelings, promoting greater self-awareness.

### 2.4. Data Analysis

Descriptive statistics (mean and standard deviation) and inferential statistics (repeated measures ANOVA) were used to analyze the data. The results were analyzed using SPSS software version 22.

## 3. Findings and Results

The descriptive findings of the study are presented in Table 1:

**Table 1**

*Descriptive Indices of Research Variables*

Variable	Group	Pretest Mean	SD	Posttest Mean	SD	Follow-Up Mean	SD
Cognitive Fusion	Cognitive-Behavioral	25.350	2.539	16.050	1.503	15.500	1.849
	Short-Term Psychodynamic	25.300	1.417	16.500	2.373	16.400	2.414
	Control	25.500	2.328	25.150	2.580	-	-
Obsessive-Compulsive	Cognitive-Behavioral	26.650	4.331	12.250	3.507	11.250	2.788
	Short-Term Psychodynamic	26.100	3.401	12.800	1.880	13.350	1.424
	Control	24.800	3.302	24.350	3.183	-	-

Based on the findings presented in Table 1, the severity of cognitive fusion and obsessive-compulsive symptoms



decreased in the treatment groups from the pretest phase to the posttest and follow-up phases. The control group showed no change in severity of these variables.

Statistical tests were employed to determine whether the observed changes in cognitive fusion and obsessive-compulsive symptoms were significant. Repeated measures ANOVA was used to examine treatment effectiveness. Before conducting this analysis, assumptions of normal distribution and homogeneity of variances were checked. The Shapiro-Wilk test confirmed the normality of score distribution across all groups ( $p > .05$ ).

Levene’s test was used to examine the homogeneity of variances, and the results indicated no statistically significant differences between group variances ( $p > .05$ ). To test the homogeneity of covariances, Mauchly’s test of

sphericity was applied, yielding a Mauchly’s statistic of .615 with a chi-square value of 27.267, which was not significant at the .05 level, indicating that the sphericity assumption was met for time, time and group, and group ( $p \geq .05$ ).

Table 2 shows the results of multivariate tests (Pillai’s Trace, Wilks’ Lambda, Hotelling’s Trace, and Roy’s Largest Root). The significance of each test can be determined by examining the Sig value, which is significant at  $p < .05$ . The partial eta-squared values for the dependent variable (emotion regulation) across the three groups are .347, indicating a large effect size, as values above .14 are considered large. The Wilks’ Lambda test results for the mentioned variable are significant, showing differences among the groups, and the group means were significantly affected by the independent variable ( $p = .0001$ ,  $F = 15.303$ ).

**Table 2**

*Repeated Measures ANOVA Results to Determine Treatment Effectiveness*

Scale	Source	SS	df	MS	F	p	Effect Size	Power
Cognitive Fusion	Within-Subjects							
	Time	1593.211	2	796.606	442.487	.000	.886	1.000
	Time * Group	668.889	4	167.222	92.886	.000	.765	1.000
	Error	205.233	114	1.800	-	-	-	-
	Between-Subjects							
Obsessive-Compulsive	Group	1522.211	2	761.106	69.511	.000	.709	1.000
	Error	624.117	57	10.949	-	-	-	-
	Within-Subjects							
	Time	3579.078	2	1789.539	401.484	.000	.876	1.000
	Time * Group	1658.789	4	414.697	93.038	.000	.766	1.000
Obsessive-Compulsive	Error	508.133	114	4.457	-	-	-	-
	Between-Subjects							
	Group	2224.878	2	1112.439	55.246	.000	.660	1.000
	Error	1147.767	57	20.136	-	-	-	-

As shown in Table 2, repeated measures ANOVA revealed significant effects of time on cognitive fusion and obsessive-compulsive symptom scores ( $p < .05$ ). Thus, regardless of the experimental group, there were significant differences in mean scores across the pretest, posttest, and follow-up phases. The interaction effect between time and group was also significant ( $p < .05$ ), indicating that changes

in mean scores of cognitive fusion and obsessive-compulsive symptoms differed between groups over time. The effect of the group was significant for both variables ( $p < .05$ ), suggesting that mean scores differed between the groups, irrespective of the measurement time.

Bonferroni-adjusted post hoc tests were used to compare scales pairwise over time and across groups:

**Table 3**

*Bonferroni Post Hoc Test for Pairwise Comparison Over Time*

Scale	Phase A	Phase B	Mean Difference (A-B)	p
Cognitive Fusion	Pretest	Posttest	6.200	.000
		Follow-Up	6.417	.000
	Posttest	Follow-Up	0.217	.108

Obsessive-Compulsive	Pretest	Posttest	9.383	.000
		Follow-Up	9.533	.000
	Posttest	Follow-Up	0.150	1.000

Table 3 shows significant differences between pretest and posttest, as well as pretest and follow-up scores for cognitive fusion and obsessive-compulsive symptoms ( $p < .05$ ), but no

significant difference between posttest and follow-up scores ( $p > .05$ ). Thus, the treatment effect persisted at follow-up.

**Table 4**

*Bonferroni Post Hoc Test for Pairwise Comparison Across Groups*

Scale	Group A	Group B	Mean Difference	p
Cognitive Fusion	Control	Cognitive-Behavioral	6.367	.000
		Short-Term Psychodynamic	5.950	.000
Obsessive-Compulsive	Cognitive-Behavioral	Short-Term Psychodynamic	-0.417	1.000
	Control	Cognitive-Behavioral	7.783	.000
	Cognitive-Behavioral	Short-Term Psychodynamic	7.083	.000
	Control	Short-Term Psychodynamic	-0.700	1.000

Table 4 indicates significant differences between the control and both experimental groups for cognitive fusion and obsessive-compulsive symptoms ( $p < .05$ ), but no significant difference between the two experimental groups ( $p > .05$ ).

experimental and control groups at different measurement phases. The figures show that both experimental groups had significantly reduced scores from pretest to posttest, and these reductions persisted at follow-up. In contrast, the control group exhibited no change over time.

Figures below illustrate the mean results for cognitive fusion and obsessive-compulsive symptoms in the

**Figure 1**

*Mean Scores of Cognitive Fusion Across Pretest, Posttest, and Follow-Up for Experimental and Control Groups*

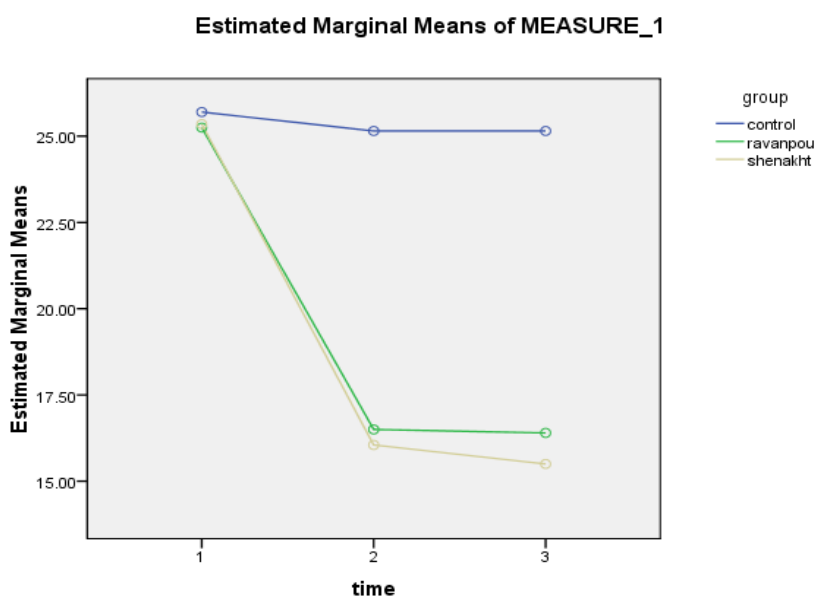
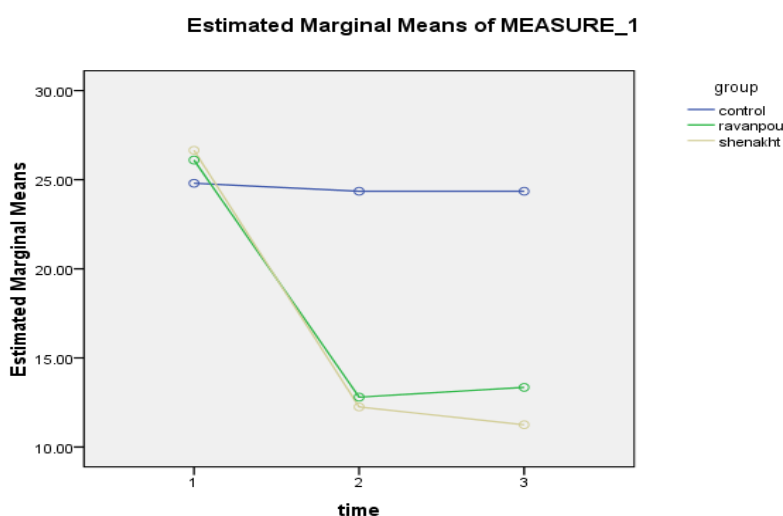


Figure 2

Mean Scores of Obsessive-Compulsive Symptoms Across Pretest, Posttest, and Follow-Up for Experimental and Control Groups



#### 4. Discussion and Conclusion

The findings of this study showed that the changes in cognitive fusion levels in the experimental groups were significant compared to the control group. In other words, cognitive-behavioral therapy (CBT) and short-term psychodynamic psychotherapy (STPP) led to a reduction and adjustment in cognitive fusion among individuals with obsessive-compulsive disorder (OCD) in the posttest and follow-up stages compared to the control group. Additionally, there was no significant difference between the effectiveness of CBT and STPP on cognitive fusion in individuals with OCD. Overall, the results demonstrated that both CBT and STPP were effective in reducing cognitive fusion in individuals with OCD, and the therapeutic effects were maintained at the three-month follow-up. These findings are consistent with previous research (5, 10, 13-15, 18-21).

To interpret these findings, it can be argued that irrational and dysfunctional obsessive beliefs in patients lead to intrusive thoughts, images, and impulses. In some individuals, these lead to beliefs about the validity and disclosure of intrusive thoughts, causing them to perceive imminent serious harm and feel compelled to prevent the anticipated event, resulting in cognitive-action fusion. Placing excessive importance on these thoughts causes

individuals to equate the presence of an intrusive thought with acting on it or to believe that negative thoughts increase the likelihood of occurrence. These distorted cognitions blur the line between reality and fantasy, leaving individuals in a state of ambiguity. Therefore, CBT and STPP focus on cognitive restructuring, identifying and correcting negative evaluations of intrusive thoughts, modifying attitudes of overestimating danger and the importance of thoughts, and practicing mindfulness to observe the thought flow without interpreting, controlling, or reacting to intrusive thoughts. These therapies help patients recognize negative thoughts and learn strategies to challenge them, viewing negative thoughts as a part of life rather than equating themselves with these thoughts.

The study also found that changes in obsessive-compulsive symptoms in the experimental groups were significant compared to the control group. In other words, CBT and STPP led to a reduction and adjustment in obsessive-compulsive symptoms in individuals with OCD in the posttest and follow-up stages compared to the control group. Additionally, there was no significant difference between the effectiveness of CBT and STPP on obsessive-compulsive symptoms in individuals with OCD. Overall, the results demonstrated that both CBT and STPP were effective in reducing obsessive-compulsive symptoms in individuals with OCD, and the therapeutic effects were maintained at the



three-month follow-up. These findings align with previous research (5, 10, 13-15, 17-21).

To explain these results, it can be stated that CBT and STPP improve involuntary OCD symptoms, reduce relapse likelihood, and enhance patient recovery. When patients receive treatment, their obsessive thoughts decrease, and they can more easily resist compulsions. The CBT process helps patients generate answers and solutions within themselves, relying on shared experiences, guided discovery, and Socratic questioning. Anti-obsessional medication helps alleviate obsessive thoughts, allowing patients to better resist compulsions. Medication reduces anxiety, facilitating more effective CBT and STPP interventions. As these patients also receive CBT and STPP, they continue to benefit from these strategies even after treatment ends, showing reduced relapse and greater symptom reduction.

Like any study, this research has limitations. These include restricting the results to a specific geographic group, relying solely on questionnaires, and limited generalizability. It would have been better to provide a placebo-like intervention for the control group to mitigate placebo effects. Another limitation was the potential interaction between the experimental and control groups in the clinic and the lack of oversight on homework completion outside of sessions. The researcher also served as the therapist, which could introduce bias. To mitigate placebo effects, future studies should consider both group and individual control sessions to assess the impact of therapeutic presence. Given the possible comorbidities of OCD, future research should address both OCD symptoms and comorbidities. This study recommends using CBT and STPP in psychological clinics, counseling centers, and psychological services to reduce cognitive fusion and obsessive-compulsive symptoms in OCD patients.

#### Authors' Contributions

A.H. conceptualized the study, designed the research methodology, and supervised the data collection and analysis. M.N. participated in the study design and implementation, collected data, and performed the statistical analysis. R.D. assisted in developing the research questions and hypotheses, contributed to the data interpretation, and co-wrote the manuscript.

#### Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

#### Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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#### Declaration of Interest

The authors report no conflict of interest.

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#### Ethics Considerations

The study placed a high emphasis on ethical considerations. Informed consent obtained from all participants, ensuring they are fully aware of the nature of the study and their role in it. Confidentiality strictly maintained, with data anonymized to protect individual privacy. The study adhered to the ethical guidelines for research with human subjects as outlined in the Declaration of Helsinki.

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