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Research paper

# A Comparison of the Effectiveness of Exposure and Response Prevention Therapy with Mindfulness-based Cognitive Therapy on Guilt Feeling in People with Obsessive-Compulsive Disorder

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#### Abstract

The present study aimed to compare the effectiveness of exposure and response prevention therapy with mindfulness-based cognitive therapy on guilt feeling in people with obsessive-compulsive disorder. This was a semi-experimental study with two experimental groups and one control group. The design was conducted using the pre-test, post-test and two months follow-up method. Based on this, 45 people who referred to counseling and psychotherapy service centers in Tehran, were selected on purposeful sampling and randomly assigned to three groups. In order to collect information, obsessive-compulsive scale and guilt feelings was used. At first, the participants were pre-tested, then Then, the experimental groups underwent therapy. The post-test was conducted. Two months later, the follow—up test was completed. The results showed that both methods were suitable, but the exposure and response prevention therapy had a greater and more meaningful effect.

*Keywords*: Exposure and response prevention therapy, guilt feeling, mindfulness-based cognitive therapy, obsessive-compulsive disorder.

#### Introduction

Obsessive-compulsive disorder is a severe mental condition (Kathiravan and Chakrabarti, 2023) characterized by intrusive thoughts and repetitive behaviors aimed at neutralizing the anxiety or distress caused by these thoughts (American Psychiatric Association, 2013) and its prevalence during worldwide lifetime is estimated to be 2–3 percent, with a 12-month prevalence of approximately 1 percent (Melchior, et al., 2023). Obsessive-compulsive disorder is annoying and uncontrollable for a person and often leads to harming oneself or important people (Lauri, et al., 2023). Various factors can be related to obsessive-compulsive disorder, and based on research, it can be said that guilt is one of these influential factors, so that a set of consistent empirical evidence for the existence of excessive blame and guilt among Clinical population with obsessive-compulsive disorder compared to non-clinical individuals with obsessive-compulsive disorder (Kenny, et al., 2023). Therefore, the main hypothesis of the

current research is that the difference between exposure and response prevention therapy with mindfulness-based cognitive therapy of guilt in people with obsessive-compulsive disorder.

#### Method

This was a semi-experimental study with two experimental groups and one control group. The design was conducted using the pre-test, post-test and two months follow-up method. Based on this, 45 people with obsessive-compulsive disorder who referred to counseling and psychotherapy service centers in Tehran, were selected on purposeful sampling and randomly assigned to three groups. In order to collect information, Yale-Brown Obsessive-Compulsive Scale and Guilt Feelings Questionnaire were used. At first, the participants were pre-tested, then, the experimental groups underwent the therapies. After interventions, the post-tests were conducted on all participants. Two months later, the follow—up test was completed by 3 groups. The data were analyzed using repeated measures analysis of variance (ANOVA) and Bonferroni post hoc test with SPSS version 24 software.

#### **Tools**

**Yale-Brown Obsessive-Compulsive Scale (Y-BOCS):** This scale was developed by Goodman, et al. (1989) and consists of 10 questions and it is scoring by 4-point Likert scale. The internal consistency of the scale reported 0.80 by Cronbach's alpha, and the test-retest coefficient was 0.75 (Poli, et al., 2017). In the present study, Cronbach's alpha coefficients for total score was 0.80 to 0.93.

Guilt Feelings Questionnaire (GFQ): This scale was developed by Kogler and Jones (1992). This scale includes 45 items, has three dimensions namely guilt characteristics, guilt state and moral standards, scoring by 5-point Likert scale, from 1 to 5. In their research Kogler and Jones (1992), obtained internal consistency of the subscales by Cronbach's alpha method ranged from 0.77 to 0.85. In the present study, Cronbach's alpha coefficients of the subscales were 0.73 to 0.90.

# **Results**

Table 1 presents the results of within-subjects and between-subjects effects analysis of variance with repeated measures for guilt feeling. The results of Table 1 show that the exposure and response prevention therapy with mindfulness-based cognitive therapy has a significant effect on feelings of guilt.

Table 1. Results of within-subjects and between-subjects analysis of variance with repeated measures for guilt feeling

| Dependent<br>Variables | Source                | F      | Sig   | Eta  | Power |
|------------------------|-----------------------|--------|-------|------|-------|
| Guilt characteristics  | Factor                | 34.85  | 0.001 | 0.62 | 1.00  |
|                        | Group                 | 84.11  | 0.001 | 0.67 | 1.00  |
|                        | $factor \times group$ | 20.62  | 0.001 | 0.49 | 1.00  |
| Guilt state            | Factor                | 24.77  | 0.001 | 0.54 | 1.00  |
|                        | Group                 | 162.79 | 0.001 | 0.79 | 1.00  |

| Dependent<br>Variables | Source                | F      | Sig   | Eta  | Power |
|------------------------|-----------------------|--------|-------|------|-------|
|                        | $factor \times group$ | 47.68  | 0.001 | 0.69 | 1.00  |
| Moral<br>standards     | Factor                | 17.34  | 0.001 | 0.45 | 1.00  |
|                        | Group                 | 134.81 | 0.001 | 0.76 | 1.00  |
|                        | $factor \times group$ | 39.38  | 0.001 | 0.65 | 1.00  |
|                        | Factor                | 58.47  | 0.001 | 0.74 | 1.00  |
| Total score<br>guilt   | Group                 | 218.03 | 0.001 | 0.84 | 1.00  |
|                        | $factor \times group$ | 58.78  | 0.001 | 0.74 | 1.00  |

Also, results of the Bonferroni post hoc test in Table 2 to average difference between the exposure and response prevention therapy group and the control group is greater than the average difference between the mindfulness-based cognitive therapy group and the control group, which indicates that the exposure and response prevention therapy is more effective than mindfulness-based cognitive therapy on reduces guilt.

Table 2- Bonferroni post hoc test results of guilt

| Variable                 | Time                | Mean Difference | sig   |
|--------------------------|---------------------|-----------------|-------|
|                          | pretest - posttest  | 2.69            | 0.001 |
| Guilt characteristics    | pretest - follow up | 2.67            | 0.001 |
| <u> </u>                 | posttest follow-up  | -0.02           | 0.999 |
|                          | pretest - posttest  | 2.22            | 0.001 |
| Guilt state              | pretest - follow up | 2.13            | 0.001 |
|                          | posttest follow-up  | 0.09            | 0.330 |
|                          | pretest - posttest  | 1.98            | 0.001 |
| Moral standards          | pretest - follow up | 1.87            | 0.001 |
|                          | posttest follow-up  | 0.11            | 0.417 |
|                          | pretest - posttest  | 6.89            | 0.001 |
| <b>Total score guilt</b> | pretest - follow up | 6.67            | 0.001 |
|                          | posttest follow-up  | 0.22            | 0.281 |

#### **Discussion and Conclusion**

In explaining these results, it can be said that obsessive-compulsive patients experience strong negative beliefs about the consequences of physical arousal related to their emotions due to their low stress tolerance and anxiety sensitivity, while obsessive-compulsive patients during the course exposure and response prevention therapy to their physical feelings and non-verbal behaviors that have been considered in the past, they pay attention to achieve a deeper and more conscious awareness of emotional experiences. Therefore, this causes them to experience less problems, including less guilt. In another explanation of these findings, the goal of exposure therapy and response avoidance is for the patient to face his fears in order to reduce the responses caused by the feeling of guilt caused by the obsession. Among the limitations of

the study, we can pay attention to the small sample size of the study, which is considered the minimum recommended amount for conducting the study due to cost and time control, so the error rate may be high and the power of the study may be low. According to the effectiveness of the interventions, these interventions can be used as appropriate treatment methods to improve the guilt of people with obsessive-compulsive disorder in counseling centers and psychological services, and the priority is to use with exposure and response prevention therapy.

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#### **Conflict of Interests**

Authors found no conflict of interests.



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