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Mindfulness-Based Cognitive Therapy for Depression Symptoms in Patients with Persistent Depression Disorder

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Abstract: Preceding studies have indicated that cognitive therapy can be as effective as medications for depression. The combination of cognitive therapy and mindfulness practices has been shown to effectively manage persistent depression. This study aimed to examine effectiveness of mindfulness-based cognitive therapy on the depressive symptoms in patients with persistent depressive disorder. The research method was a semi-experimental pre-test-post-test with a control group design. The statistical population of the study included all patients with persistent depressive disorder that referred to psychology and psychiatry clinics of Tehran in 2022. Participants were 30 patients whom selected by accessible sampling method and randomly assigned to experimental and control groups. The semi-structured clinical interview demographic form and the second version of the Beck depression test were used to collect data. To analyze the hypotheses, ANCOVA was used in SPSS-16. The results indicated that cognitive therapy based on mindfulness is effective on the depressive symptoms in patients with persistent depressive disorder. As a result, the findings support the role of psychological interventions, especially interventions based on changing cognitions and increasing mindfulness in the treatment of persistent depression. Our findings have beneficial implications for psychologists in the treatment of depressed patients.

Keywords: Mindfulness-based cognitive therapy, depression symptoms, persistent depression disorder

Introduction

Depression is one of the most common psychological disorders that mental health professionals face. Researches and estimates indicate the increasing risk of severe depression among people in society (Zhang et al., 2022). This disorder is one of the most common disabling and recurring disorders (Kia et al., 2016; Omer & Jamal, 2022). Depression can be a progressive factor for other disorders and disorders related to suicide risk (Martinsen et al., 2016). Family conflicts and job problems are higher in these people and they have more severe problems in interpersonal relationships (Klein et al., 2006) and their depressed mood has not improved and sometimes lasts 20 to 30 years or even longer, so that the average duration of this disorder in adults is approximately 5 years (Barlow et al., 2016). In DSM-5 (American Psychiatric Association, 2013), the diagnosis of chronic depression is based on two chronic depressive disorders and depressive mood, which is defined as persistent or stable depressive disorder (Robinson & Spalletta, 2010). Based on this, a patient with symptoms of major depression as an acute type of depression and also with less severe symptoms of depression, depending on the length of the disease period (at least two years in adults and one year in children and adolescents), can be diagnosed with

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chronic depression (Torpey & Klein, 2008). This is despite the fact that in the clinical manifestations and diagnosis based on DSM-5, the same symptoms of major depression or depressive mood can be seen, and there is not necessarily a special difference in terms of quality with the mentioned disorders (Reeves et al., 2018). This problem is considered a treatment-resistant disorder, and drug therapy does not work for 40% of patients (Gelenberg, 2010).

Common treatments for persistent depression are: 1) Dynamic Psychotherapy: Historically, psychoanalytic thinking is related to chronic depression as an explanation of functional personality damage, and as a result, it will result with psychodynamic therapy (Markowitz, 2017). 2) Cognitive behavioral therapy: Cognitive behavioral therapy treats depression by addressing maladaptive and pessimistic thoughts that cause depression. In a collaborative effort, the individual and the therapist help to identify and then change those elements of thinking and behavior that are thought to cause depressive symptoms (Beck et al., 1987). 3) Behavioral activation therapy: Behavioral activation therapy improves performance and reduces behavioral avoidance and improves overall performance in chronic depression (Cuijpers et al., 2007). 4) Interpersonal psychotherapy: In fact, this is a focused psychotherapy approach with limited time that helps patients identify problematic feelings, thoughts, and behaviors in interpersonal relationships and change them (Weissman et al., 2015). 5) Cognitive Behavioral System Analysis Psychotherapy: In this treatment, the basic assumption is that persistent depression is caused by the combined incompatibility of social problem solving and the inability to recognize and understand the individual effects of a person's behavior; Therefore, cognitive-behavioral analytic psychotherapy is the integration of elements of cognitive, behavioral and interpersonal therapy for depression and using them in a time-limited interactive form (Crowe & McKay, 2017). 6) Family-centered treatment: Family-centered therapeutic interventions for stable depression disorders play an important role in the treatment of these disorders (Miller et al., 2009). 7) Drug therapy: According to the researches, drug therapy is faster and generally superior in symptom relief and clinical improvement (Boccia et al., 2016). But regarding the treatments called the third wave, which are more recent, it should be mentioned cognitive therapy based on mindfulness, which have achieved success among psychological treatments (Pourmohamadi & Bagheri, 2015). Mindfulness-Based Cognitive Therapy (MBCT) is considered to aid people who suffer recurrent attacks of depression and chronic unhappiness. It combines the ideas of cognitive therapy with meditative actions and attitudes based on the cultivation of mindfulness. (Kuyken et al., 2010). In this treatment, which is a short-term and structured intervention, instead of emphasizing the content of thoughts, emphasis is placed on awareness and changing the relationship between thoughts, feelings, and bodily sensations (Sipe & Eisendrath, 2012) Cognitive therapy based on mindfulness has achieved great success in reducing depression symptoms (Kingston et al., 2007; Kuyken et al., 2008; Segal et al., 2018). For instance, Barnhofer et al. (2009) examined the effectiveness of Mindfulness-Based Cognitive Therapy (MBCT), in patients suffering from chronic-recurrent depression. The results indicated that self-reported symptoms of depression diminished from severe to

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mild levels in the MBCT group. Likewise, numbers of patients meeting full criteria for depression reduced significantly more in the MBCT group than control group.

Considering the previous studies results, the present study aimed to examine effectiveness of cognitive therapy based on mindfulness on the symptoms of depression in patients with persistent depressive disorder.

Material and Methods

The research method of the current study was a pre-test-post-test semi-experimental design with a control group. After the selection of participants, they were randomly assigned to the experimental and control groups, and both groups were given a pre-test once before the implementation of the plan, and after training the experimental groups, the post-test was administered in both groups and after three months, follow-up phase was implemented.

The statistical population of this research was all the patients with stable depression disorder referred to psychology and psychiatry clinics in Tehran in 2021. Among these people, 30 people were selected by accessible sampling method, and the semi-structured clinical interview of the SCID or based on the list of symptoms of the diagnostic and statistical manual of mental disorders and the Beck depression test, second edition, was taken from the subjects. Participants completed an informed consent form before the start of the study. In the experimental group, Mindfulness-Based Cognitive Therapy was performed during eight sessions. A summary of the intervention sessions is given in Table 1. The control group did not receive any intervention during this period.

Tools

In this research, the semi-structured clinical interview demographic form and the second version of the Beck Depression Test were used to collect data and evaluate the desired characteristics and conditions.

Demographic form: This form specifies the personal status of the person in terms of this form, the personal status of the sample in terms of age, marital status, level of education, length of marriage and number of children.

Structured Clinical Interview for DSM-5 (SCID-5): This checklist is a tool for diagnosing disorders based on DSM-5 definitions and criteria. The clinical and research version of SCID was developed by First et al. (2016) for DSM-5 diagnoses. This tool is used by researchers and clinical professionals to standardize the measurement process in the clinical setting. In the research conducted by Shooshtari et al. (2007), the diagnostic agreement for most of the specific and general diagnoses was moderate to good (kappa above 0.6). Most of the interviewees and interviewers have reported that the ability to implement the Persian version of SCID is favorable. Therefore, this tool can be used in clinical and research diagnoses.

Beck Depression Test (BDI-II): The Beck depression questionnaire is a 21-question form used to measure the dependent variable. Subjects rate symptoms on a scale from 0 to 3, and the range of scores

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is from 0 to 63. The reliability and validity of this test has been confirmed in Iran. Toosi et al. (2017) reported a reliability coefficient of 0.91 and Ghassemzadeh et al. (2005) obtained a reliability of 0.87 for this test.

In this research, ANCOVA and Bonferroni's post hoc test were used to analyze the research hypotheses. It should be noted that SPSS-16 statistical software was used to analyze the data.

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Table 1. Mindfulness-based treatment courses

Sessions	Aim	Content
1	Automatic guidance	Exercises of the session of eating a raisin with the presence of the mind and meditation of the body
2	Dealing with obstacles	Exercises of the meditation session of checking the body, ten minutes of presence of the mind on the flow of breathing
3	Presence of mind on breathing	The presence of the mind on the breath and on the body during movement, the exercises of the movement session with a conscious state of mind, breathing and stretching exercises, performing stretching and breathing movements with the presence of the mind followed by meditation in a sitting position focused on the awareness of breathing. and body. These exercises can begin with a short visual or auditory mindfulness practice, three minutes of breathing space
4	Staying in the moment	Exercises of a five-minute session of visual or auditory presence of mind, meditation in a sitting position, awareness of breathing, body, sounds, thoughts and awareness without specific direction.
5	Acceptance and permission or permission to attend	Exercises of the sitting meditation session, awareness of breathing and body, emphasis on understanding how to react to the thoughts, feelings and bodily sensations created, introducing a difficult position in the exercise and exploring its effects on the body and mind, and three minutes of space breathing
6	Thoughts not facts	Exercises of the sitting meditation session, awareness of breathing and body, in addition to introducing the problem related to the exercise and realizing its effects on the body and mind, three minutes of breathing space.
7	How to take care of yourself in the best way	Exercises of meditation session in sitting position, awareness of breathing, body, sounds, thoughts and emotions, three minutes of breathing space and plan the problem that arose in doing the assignment
8	Using what you have learned to cope with the emotional situation in the future	Practices of the meditation session, finishing the meditation

Results

Results of ANOVA analysis on the average post-test scores of research variables provided in table 2.

Table 2. The results of ANOVA analysis on the average post-test score of depression

Variable	Source	SS	DF	MS	F	p	Eta
Depression symptoms	Pretest	45.234	1	45.234	1.11	0.6	0.04
	Group	973.173	1	973.173	24.05	0.001	0.49
	Error	1011.221	25	40.449			

As seen in Table 2, F value (24.05) calculated for the effect of mindfulness-based cognitive therapy on depression symptoms is significant ($p < 0.001$). According to the average of the two groups, the

experimental group has obtained a lower average on the components of depression than the control group. Therefore, it can be concluded that cognitive therapy based on mindfulness has improved patients with depression. It is also observed that F calculated for the effect of pre-test on depression symptoms is not statistically significant. Therefore, it can be concluded that the changes made in the post-test scores of the experimental group were not affected by the pre-test scores. Eta squared values also show that mindfulness-based cognitive therapy explains 49% of depression symptoms improvement. Also, in the table 3, the results of Bonferroni's post hoc test for pairwise comparison of the mean of research variables in pre-test, post-test and follow-up are presented.

Table 3. Bonferroni's post hoc test results for pairwise comparisons of average score of depression

Variable	Comparison	Experimental group		
		Mean difference	SD	p
Depression symptoms	Pretest-posttest	11.42	2.33	0.001
	Pretest-follow up	7.09	2.09	0.002
	Posttest-follow up	9.18	3.23	0.09

According to the results of the table 3, the difference between pre-test and post-test and follow-up variables of depressive symptoms is significant ($P < 0.001$). But the difference between the post-test and follow-up averages is not significant ($P>0.05$). In other words, cognitive therapy based on mindfulness in the post-test phase improved the symptoms of depression in patients with depressive disorder, and this change was maintained in the follow-up phase.

Discussion

The results indicated that cognitive therapy based on mindfulness is significantly decreased the depression symptoms. Therefore, it can be said that according to the obtained averages, cognitive therapy based on mindfulness is effective on reducing the symptoms of depression. The results of the research are in line with the previous researches (Kia et al., 2016; Kuyken et al., 2008; Pourmohamadi & Bagheri, 2015; Segal et al., 2018). There is reliable empirical evidence in support of using MBCT to reduction the risk of depressive relapse. The reason for the effectiveness of cognitive therapy based on mindfulness in these studies is that mindfulness therapy leads to a cognitive change in the patient's thinking and actions and benefits from the principles of conditioned reinforcement. In this way, in order to go to the next step, the patient tries to see himself at a higher level, and this desire continuously causes the gradual improvement of the patient step by step, and he continues his individual treatment while being calm and aware. participants solve their shortcomings and problems in face-to-face meetings. In other words, it can be said that the treatment of the presence of mind increases the attention and awareness of a person towards physical and mental feelings and leads to a feeling of trust in life, deep compassion, and true acceptance of life events (Barnhofer et al., 2009). Systematic training of these intervention through meditation may be principally supportive in patients suffering from chronic depression where vulnerability processes such as rumination are likely to have acquired a habitual and

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automatic character and are more likely to occur when cognitive control is damaged. MBCT encourages individuals with depression to become more aware of their interior events (bodily sensations, thoughts, feelings) and to change the ways in which they relate to these thoughts. For instance, individuals are invigorated to view their thoughts as fleeting events in the mind, rather than consider them as reality. Uncoupling from automatic negative cognitive outlines, such as rumination, decreases the future risk of relapse.

This research is limited to the treatment seekers who have referred to the treatment clinics in Tehran, so we couldn't to generalize it to other people in the society. It is suggested that in future researches, in order to reduce the possible bias and control the intervening variables, the current study repeated in different cities and groups and with a larger sample so that the results can be generalized with more confidence.

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