The effect of mindfulness-based cognitive therapy (MBCT) on reducing depression in married women

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Abstract

Introduction: Depression is the most common mental health issues and one fifth of people experience depression at some stage of their lives. Depression is a condition that affects mood and reduces activity and is able to affect the thinking, feelings, behavior and body. Objective: To investigate the effects of mindfulness-based cognitive therapy (MBCT) on reducing depression in married women who referred to counseling centers in Birjand.

Materials and Methods: The subjects were selected by convenience sampling researcher calls. Then, Beck Depression Inventory was given to people. In addition to these two clinical tools, diagnostic and clinical interview based on DSM-IV-TR their depression was assessed. In the next step based on the cutting tool and a clinical interview, 28 patients were divided randomly into two groups: experimental and control. The experimental group in seven sessions was treated by cognitive therapy based on mindfulness. At the end of the intervention, both groups were assessed using the same tools (post-test) and after one month again the same tools were used (follow-up).

Results: The results of multivariate analysis of variance (MANOVA), the difference of depression between pre-test and post-test in experimental and control groups was equal to the amount (f=80/63). F ratio obtained in the post-test and follow-up between the two groups in rates of depression was (f=2/12). Conclusion: This type of treatment can lead to decrease in depression and stability of the treatment effect in time.

Keywords: Mindfulness-based cognitive therapy / family / depression.
Introduction

Depression is the most common psychiatric diagnosis that its growing prevalence has created major problems for Mental Health. WHO (World Health Organization) predicts that by 2020, depression is the second leading cause of disability after ischemic heart disease (heart ischemic) (1). The findings of epidemiology in different countries showed that the prevalence of depression varies in different societies. In 1990, the rate of depression in the world, was estimated 472 million people and in Iran at about 5 million people (2) which indicates the high prevalence and importance of depression in Iran and the world. In addition, studies show that the prevalence of depression in women at risk of developing depression is (30.5%) more than men (16.7 percent) (3). In almost all countries and cultures around the world and the prevalence of depression in women is twice that of men. Of all physical and mental diseases in 15-45 years old women, the most common is depression (4). 22% of women suffer during their marriage due to family struggles (5). Although there is agreement about the multiple cause of depression and evidence show that no social support and intimacy with important people in life, plays an important role in the depression. On the other hand, more than half of patients with depressive disorder face chaotic and problematic family (6). Marital problems, especially bickering and arguing are the most common reported events before the onset of depression. The lack of support and lack of trust of spouse can increase the risk of depression (7). Johnson (2003) states that marital disagreements are important risk factors for psychiatric disorders such as depression, anxiety, bipolar disorder, alcohol dependence and some malignancy (8). Pickel et al (1969) argue that marital conflict many times can be the starting point of admission of depressed people in hospital (9). A study by Beech and colleagues (1998) showed that low levels of marital satisfaction are related to indications of depression in women (10). For this reason, the cause of depression in women can be due to a failed love affair and unsuccessful marriage (11). Also, Golian and colleagues (2002) found a high correlation between disrupted marital relations and depression. Experimental results show that women in failed marriages get depressed three times more compared to men (46% vs. 15%) and almost half of all women in failed marriages become depressed (12). Weissmann (1987) showed that marital satisfaction is associated with a reduced risk of depression and spouses who are in disagreement are more depressed and anxious and have hostile behavior (13).

Mindfulness-based cognitive therapy (Mindfulness Behavior-Cognitive Therapy) is a type of cognitive therapy include meditation, yoga elongation, basic education about depression, physical training and cognitive therapy training, which is reviewing the relationship between mood, thoughts, emotions and sense somatic around in "the moment" and reduces automated processing of depression (14). Mindfulness involves behavioral and cognitive and metacognitive strategies for focusing process which in turn leads to prevention of a spiral of negative thinking, negative mood, tendency to worrying responses and good situation for creating pleasant thoughts and emotions (15).

According to cognitive theory, psychopathology gets worse by mental practice and maladaptive schemas (15). In this method, which is a form of the structure of our mind, our thinking is linked with the experience of past, future and present. Maladaptive schemas usually lead people to manipulate the facts in a negative manner and may be the ground for psychiatric disorders, especially depression. Mindfulness training give people a sense that to recognize their maladaptive schemas and its importance aware and this is associated with
more independent. The schema are understood by their immutability, the resistance to change and non-functionality and are started by environmental stress and are mostly experienced by people as facts (15).

A number of researchers have found that MBCT treatment in patients with 3 major depressive periods is effective in preventing relapse of depression (17). In a study, researchers found that mindfulness-based cognitive therapy can improve depressed patients that did not answer to any method of treatment (18). In a study using a methodology based on Mindfulness on 25 depressive patients that were followed up for two years it was found that this therapy not only reduce depression but also is effective in preventing recurrence of depression (19). Another study of 145 depressed patients on Mindfulness-based cognitive therapy after 60 weeks of follow-up showed that the risk of further depression in patients who had a high risk of recurrence is 40 percent while the risk of depression while it was 66% for depressed patients who did not have this training (20). In the study of Teasdale et al based on MBCT treatment of depression recurrence rate went from 78 percent to 36 percent (14). Schulman observed that participants in the experimental group (mindfulness-based methodology) compared to the control group significantly had less anxiety, depression and dysfunctional attitudes (21).

Teasdale, Segal, Williams, Residgi, Sulasbi and Lav showed that for patients who had two or three periods of major depression, MBCT was significantly effective in reducing depression (22). A study conducted in Iran indicate that mindfulness-based cognitive therapy in reducing negative thoughts about future, dysfunctional attitude, depression and anxiety in a 60-day of follow-up as an attention Control Training is effective. Also, this method can be effective in preventing the return of depression and anxiety (3). With the research of this kind and obtaining the necessary information we can achieve more detailed description of the family system and identify the risk factors and design effective strategy. Therefore, this study sought to examine mindfulness-based cognitive therapy in reducing depression in married women.

**Materials and methods**

This study is developed experimental design pretest, posttest, and follow-up with the control group. The population of the study includes all the married women who were depressed and unhappy with married life in Birjand that had responded to researchers call for mindfulness-based cognitive training. To select the sample, available sampling was used. 28 married women with depression and 108 women who responded to the call, first based on Statistical Manual of the American Psychological Association fourth edition, (DSM-IV-TR) and the Structured Clinical Interview by psychologists, counselors and at a later stage were selected based on the score higher than 15 on the Beck Depression Inventory-Short Form (BDI-13). Then the out of 28 women with the depression, 14 patients were randomly put into mindfulness-based cognitive therapy group and 14 others were assigned to the control group. It should be noted that two of the subjects of mindfulness-based cognitive therapy did not attend the meetings. Finally, Mindfulness-based cognitive therapy group was formed with 12 women. The experimental group had mindfulness-based cognitive therapy and control group has no treatment. At the end of the intervention, both groups were assessed using these tools (post-test) and after a month the same tools were used on them (follow-up). **Research Tools:** In this study, to measure depression Beck Depression Inventory-Short Form
(BDI-13) was used. Beck Depression Inventory Short Form (BDI-13): Beck Depression Inventory has Article of self-report that state the particular symptoms of depression. Any statements of the questionnaire include a scale of four items that range from zero to 3 and have the maximum and minimum score of between 39 and zero. BDI-13 is formulated to measure different aspects of depression symptoms such as, emotional, cognitive, motivational and physiological depression (23). H., Shapourian and Mehryar (1986) achieved significant positive correlations between Beck Depression Inventory and the measures of anxiety, loneliness and external locus of control. They showed that the Beck Depression Inventory has the validity and reliability in Iranian Students (24). Rajabi based on factor analysis, identified two factors of negative affect toward themselves and not enjoyment as 52/54%.

**Mindfulness-based cognitive therapy plot synopsis**

First session: Referrals, acceptance of authority, set goals and policy sessions of the Group, investigation of expectation of the patients of the treatment, familiarity of with the physical and psychological symptoms of patients' depression, summary of practices of mindfulness-based cognitive training for patients.

Session II: autopilot, feedback about training about eating, exercise, physical verification, start training with a focus on shortness of breath, give feedback and discuss the physical check, homework, the first session handouts (home assignments, task recording sheets), completion of the class with focuses on short breathing for 2 to 3 minutes. Third session: dealing with obstacles, checking homework, practice of thoughts and emotions, recording pleasant events, Meditating 10 to 15 minutes, providing home assignments.

Session Four: Mindfulness of Breathing, telling summary of the third session, review of exercise, exercise of sight or hearing, Sitting in meditation, exercise of breathing space, walk with Mindfulness, Summary and identification of homework.

Fifth Session: staying in the present.

Sixth Session: thoughts are not facts, 40-minute sitting meditation, Awareness of Breathing, body, sounds and then thought, reviewing home assignments, moods, thoughts and viewpoints or replace thoughts, breathing time, and revising it, Summary of session and providing homework. Session Seven: conclusion, use what you have learned to deal with the next moods.

Previous session overview and review of home assignments, review of the entire program, questionnaires were distributed among the participants to identify and discuss the program and to find positive reasons for continuing the training, ending the class with the last meditation. Time interval of meetings was once a week.

**Results**

The mean and standard deviation of age of participants was 21/32 and 1/99, with minimum of 18 and maximum of 40 with the high school diploma or higher. To analyze the data, multivariate analysis of variance (MANOVA) is used in the application spss 17. Results of data in Table 1 indicate that the average depression in experimental and control groups in the pre-test was almost the same. But in the post-test and follow-up, the experimental group
compared to the control group had lower scores; this means that mindfulness-based cognitive therapy reduced depression in married women.

(To determine the ratio F on the reduction of depression in married women refer to Table 3)

Statistical analysis multivariate analysis of variance including Pulley effect, Wilks Lambda, the effect of Hotelling and the largest root Rey (p<0/001, 37/05) for two experimental and control groups was significant. These findings suggest that at least two groups in terms of dependent variables are different, and multivariate analysis of variance can be used to compare them.

Table 1: statistical indicators of depression in control and experimental groups in mindfulness-based cognitive therapy

<table>
<thead>
<tr>
<th>Position</th>
<th>Indicator Groups</th>
<th>Amount</th>
<th>Mean</th>
<th>Standard deviation</th>
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<td>Pretest</td>
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<td></td>
<td>Posttest</td>
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<td>Follow-up</td>
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<td>The difference between post-test and follow-up</td>
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Table 2: Results of multivariate analysis of variance (MANOVA) related to the independent variable (experimental and control groups) and dependent variables (depression) in mindfulness-based cognitive therapy

<table>
<thead>
<tr>
<th>independent variable</th>
<th>dependent variables</th>
<th>Sum of squares</th>
<th>The degree of freedom</th>
<th>Mean of Sum of squares</th>
<th>F ratio</th>
<th>The level of p</th>
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<tbody>
<tr>
<td>Group</td>
<td>The difference between before and after depression</td>
<td>273/37</td>
<td>1</td>
<td>273/37</td>
<td>80/63</td>
<td>≤0/0001p</td>
</tr>
<tr>
<td></td>
<td>The difference between after and follow up of depression</td>
<td>4/16</td>
<td>1</td>
<td>4/16</td>
<td>2/12</td>
<td>=0/159p</td>
</tr>
</tbody>
</table>
Figure 1: Mean of depression in the pre-test, post-test and follow-up control and experimental groups in mindfulness-based cognitive therapy (X-axis and y-axis depression cognitive therapy group).

Conclusion

This study aimed to investigate the effect of mindfulness-based cognitive therapy on depression in married women who referred to counseling centers in Birjand. As shown in Table 3, the F ratio observed the difference between pre and posttest experimental and control groups in the rates of depression, is 8/63 (0001 / 0≥p).

This finding suggests that the group had significant difference in the amount of depression and indicates that the treatment reduced depression in the experimental group. This findings are consistent with previous studies in the field of mindfulness-based cognitive therapy for depression reduction, including Williams et al. (2008), Michalak and colleagues (2008), Kinney and Williams (2007), Live and Mchmn (2005), Schulman (2004), Teasdale et al. (2000), Teasdale et al. (1995) and Teasdale et al. (1994) and kaviani and colleagues (2004), tanning et al (2007) (26) and Sajjadian et al (2009) (27).

In explaining this findings we can say as mentioned in earlier reference, in fact, it seems that mindfulness through attention control training becomes effective (14). In principle, the assumption is that vulnerability to relapse of depression, resulting from recurrent connections between depressed mood and self-complaining and desperate patterns of thoughts which in turn leads to alterations in neural and cognitive levels (28). On that assumption, those who have been depressed in the past, in terms of thinking pattern differ with those who have never been depressed.

Thus, despite the flawed model of thinking, it is always likely that by effect of severe congestion and result of reactivation pattern of thinking, a person enter a new era of depression. Mindfulness-based cognitive therapy can increase preventive treatment by changing patterns of thinking and teaching attention control skills. Mindfulness-based cognitive therapy by encouraging the person to practice paying attention to characteristics of experiences without judging leads to encoding more specific information in autobiographical memory which in turn can lead to a more specific memory retrieval (29).

F ratio obtained in the post-test and follow-up between the two groups in rates of depression was (2/12) (p=0/159). This finding suggests that the amount of depression of experimental
and control group does not differ in posttest to follow up level which indicates that this treatment had a lasting effect over time. This finding is consistent with research Michalak et al. (2008), Teasdale et al. (1995), Teasdale et al. (1994), kaviani and colleagues (2004) and Sajjadian et al (2008) in Mindfulness-based cognitive therapy.

In comparing the results with other surveys it must be said that the study subjects were women only, and on the other hand, depression is a multidimensional variables that its stability and change is affected by partner of individual. Unorganized family space, family problems such as the lack of attention of spouse and his complaining, improper intervention of spouse in various issues which shows inefficient intervention, on the other hand continued lack of mindfulness-based cognitive programs individually and in the home environment, and time period of protest to follow up was one month is not long enough to show the effect of teaching, which also is not effective in not confirming this hypothesis.
References


