



Effectiveness of Mindfulness-Based Cognitive Therapy on the Mania Symptoms of Individuals Diagnosed with Bipolar Disorder

Ehsan Akhavan Salmasi^{1*}, Hakimeh Aghaei²

¹M. Sc in Clinical Psychology, Department of Psychology, Faculty of Humanities, Shahrood Branch, Islamic Azad University, Shahrood, Iran

²Assistant Professor, Department of Psychology, Faculty of Humanities, Shahrood Branch, Islamic Azad University, Shahrood, Iran

ABSTRACT

Objective: The objective of the present study was to determine the effectiveness of mindfulness-based cognitive therapy on the mania symptoms of individuals diagnosed with bipolar disorder

Method: The present study was a quasi-experimental study based on pre-test- post-test with experimental and control groups. Target population of study included 46 male patients diagnosed with bipolar disorder and admitted to Parsa Rehabilitation Center for chronic psychiatric patients, which 30 patients were selected as sample using convenient sampling method and they were assigned into experimental (n=15) and control (n=15) groups. To collect data, Young Mania Inventory (1987) was used. Data were analyzed using SPSS software by using analysis of covariance.

Results: The mean scores of mania in patients of experimental group reduced from 23.73 to 12. The results showed that mindfulness-based cognitive therapy had significant effect on patients' mania (0.001).

Conclusion: The findings showed that mindfulness sessions reduced mania in the intervention group. It means that mindfulness program is effective in reducing mania and it is recommended to other patients.

Keywords: Mindfulness, bipolar disorder, mania

Corresponding author: Ehsan Akhavan Salmasi
Phone: + 9856508585

INTRODUCTION

The Mood disorders such as bipolar disorder affect the ability of experiencing natural mood states and it causes disorder in one's biological and environmental performance. To improve these patients, effective factors should be identified, treated and or controlled. Among the factors affecting this disorder is disorder in biological, psychological, emotional and environmental aspects that can be considered as a vulnerable model (Pourkamali and Samsamshariat, 2014). Bipolar disorder affects different aspects of personal, social, occupational life and interpersonal relationships of patients. Rate of suicide, substance abuse, unemployment, criminal behavior and divorce is high in people who suffer from bipolar disorder, so that these people are four times re disable than general population (Russell and Brown, 2005). Bipolar disorder is characterized by periods of mania. The disease is classified according to the severity of this period. Patients may go suddenly from peak of happiness to peak of sadness and there is no relationship between the patient mood and what really happens in the patient's life. Mania period can have various severities ranging

from severe mania (semi-mania) to complete mania with manic symptoms such as hallucinations or Katatonia. During this period, concentration is reduced, need for sleep is reduced, and the patient experiences megalomania delusion (Saduk and Saduk, 2007). The patient judgment may be impaired and show unusual or abnormal lavish behavior. Mania is a feeling of happiness, increased energy, and too much optimism. This could be so severe to affect the patient's thinking and judgment. Patient may have strange thoughts, and make a bad decision and show shameful, harmful and dangerous behavior, such as depression. In this state, life is disturbed and it can affect a person's relationships and work. In the event that this condition is not too severe, it is called as mild mania (Albrecht and Herick, 2013).

Experts have used several types of psychological treatment in order to improve patients with bipolar disorder, such as interpersonal therapy and its revised form is called as interpersonal treatment of rhythm social (Frank, 2005), family-focused treatment (Miclowitz et al., 2009) and group psychological training (Diduna, 2009). Each of these treatments is long-term (at least 12 to 21 sessions) and costly, and access to them is difficult for many patients (Talebizadeh et al., 2012). In the area of treatment of psychological problems, various approaches such as medication, psychotherapy, or combined

treatments were used. In the area of psychotherapy, cognitive-behavioral therapy was proposed since the 1970s. However, following some criticisms of the approach, other integrated methods were presented to treat these problems. Mindfulness-based cognitive therapy combined meditation techniques with some aspects of cognitive therapy and it has been proposed for the treatment of this disorder (Talebizadeh, Shahmiri, and Jafar Fard, 2012). Mindfulness-based cognitive therapy was adopted from Kabat-Zinn mindfulness-based stress reduction model, and principles of cognitive therapy were added to it (Medina et al., 2016). This type of cognitive therapy includes different mediations, stretching yoga, basic education about depression, body review exercise and several cognitive therapy exercises, showing the relationship between mood, thoughts, emotions and sensations. All of these exercises facilitate attention to physical and surrounding situations in the present moment and reduce automated processes of anxiety and depression (Sarafraz and Valikhani, 2015). Mindfulness is defined in different ways, but all of them emphasize mainly on flexibility, openness, and curiosity. This definition of mindfulness states three important points as follows: First, mindfulness is the process of awareness not thinking; second, mindfulness includes attitude of openness and curiosity, and third: Mindfulness includes mental flexibility (Harris, 2009). Studies have been conducted in this area and they have examined the effect of MBCT in reducing and improving symptoms of patients with bipolar disorder. Some of these studies include Murray et al (2017), which examined the effects of mindfulness on quality of life in patients with bipolar disorder and their results showed that mindfulness interventions have a positive impact on the quality of life of these patients. Struan et al (2016) also in their study referred to the impact of mindfulness on reducing clinical symptoms in adolescents with bipolar disorder. Murray et al (2015) in examining the effect of online mindfulness training on patients with bipolar disorder found that people who were present at all stages of education achieved significant improvement. Micowitenz et al (2009) also found that MBCT was effective in reducing symptoms of depression and mania in these patients. In domestic studies, Hashemi (2014) stated that integrated mindfulness-based cognitive behavioral therapy through cognitive behavior therapy compared to medication leads to an increase in adaptive behaviors and reduced severity of manic behavior and thus reduction in the rate of recurrence in patients with bipolar underwent medication. The only case in this area that was not consistent with the results of other studies was the study conducted by Talebizadeh et al (2012) who found that mindfulness trainings reduced depressive symptoms in patients, but significant effect was not seen on mania. Given the importance of this disorder and its harmful effects on the lives of patients, the objective of this study was to investigate the effects of mindfulness techniques training mania in patients with bipolar disorder.

METHODOLOGY

The present study was a quasi-experimental study based on pre-test- post-test with experimental and control groups. Target population of study included 46 male patients with bipolar disorder admitted to Parsa Rehabilitation Center for chronic psychiatric patients, which 30 patients were selected as sample using available sampling method and they were assigned into experimental (n=15) and control (n=15) groups. To measure mania of the patients, Yang Mania Inventory (1987) was used. This questionnaire has 11 questions and Talebizadeh et al (2012) reported Cronbach's alpha for this scale 0.81.

Summary of educational sessions' content

The first session, meeting, introduction, eating raisins with mindfulness, body inspection exercise, and attention to everyday activities combined with the mindfulness

The second session: body inspection exercise, sitting meditation exercise, paying attention to subjective interpretation as the start of personal responsibility for thoughts and feelings.

The third session: ten minutes on the flow of breathing, thoughts and feelings exercise, the definition of emotion and awareness of the positive and negative emotions and attention to everyday activities with mindfulness

The fourth session: consciously seeing and hearing, paying attention to thoughts as thoughts not as facts or events

The fifth session: Seeing and hearing meditation, sitting meditation (awareness of breath, body, sounds and thoughts), defining the principles and rules governing the emotion, regularly breathing space for three minutes and coping breathing space for three minutes.

The sixth Session: prolonged sitting meditation, the way of reacting to thoughts, physical feelings, and being prepared for the end of the period.

The seventh session: sitting meditation, awareness of breathing, body, sounds and thoughts and review of exercises, review of homework

The eighth session: body review, to examine barriers to the use of techniques, and review of previous materials, and finally conclusion and implementation of the post-test.

After implementing the educational intervention, post-test was performed on all samples and collected data were analyzed using the spss 23 software. In order to evaluate the effectiveness of mindfulness-based cognitive therapy on depression in patients, analysis of covariance was used.

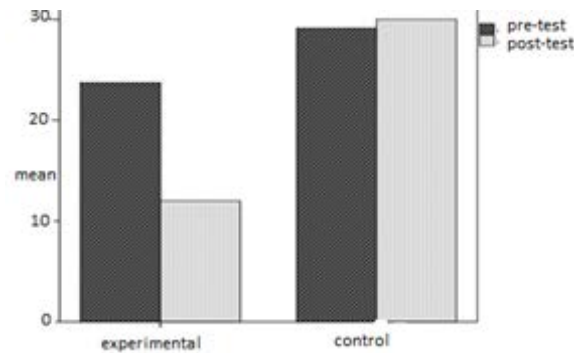
Before analyzing, the results were examined by using the tests of Levine, *Shapiro-Wilk*, and homogeneity of the slope of the regression line, equality of assumptions, normal distribution of scores and the regression equality so that presumptions of using covariance analysis test to be held.

FINDINGS

Table 1: Comparison of means of pretest and posttest for variable of mania in groups

Variable	Group	Pre-test		Post-test	
		Mean	SD	Mean	SD
Mania	Experimental	23.73	9.76	12	7.56
	Control	29.13	8.14	30	8.7

Diagram 1: Comparison of means of pretest and posttest for variable of mania in groups



As seen in Table 1 and Diagram 1, the mean for experimental group in the post-test for mania changed significantly compared to than in pre-test. Therefore, it could be said that training has significant positive impact on the patient's mania.

After examining the pre-assumptions required and confirming that they are held (Kolmogrov-Smirnov test for normality of data, Levin test for homogeneity of variances, and the balance F test for homogeneity of regression line slope, and homogeneity of variance), analysis of covariance model was explained that its results will be provided later. To examine the findings of this

study (the effect of mindfulness-based cognitive therapy on mania in individuals diagnosed with bipolar disorder), covariance analysis method with Bonferroni correction method was used, which results can be seen in Table 2. Covariance analysis results showed that the mania pre-test score has significant impact on post-test scores. Therefore, initial difference of pre-test scores in groups affects the mania post-test scores, and after removing the effect of covariate (pre-test scores), the results showed differences in mean of groups in the mania score of patients.

Table 2: Analysis of covariance and linearity of effects of educational groups

Effect	Sum of squares	F	df	p-value	ETA coefficient
Model	3865.447	122.338	2	0.001	0.901
Fixed effect	0.006	0.001	1	0.985	0.001
Pre-test	1435.447	90.861	1	0.001	0.771
Group	1283.861	81.266	1	0.001	0.751
error	426.553		27		
Total	17522		30		

Finally, in order to interpret the differences and the mean of adjusted covariate, pairwise comparison test was used, which the results are shown in Table 3. As can be seen, significant level calculated for mania was 0.001m which it is found that there was significant difference between two experimental and

control groups in each of sub-scale. On the other hand, after the significance of the groups' effect, we examined these two groups in the model, seen in Table 3.

Table 3: comparing different groups in terms of mean of mania

Groups	Mean difference	P-value	Test result
Experimental and control	13.70	0.001	There is significant difference between two groups

DISCUSSION AND CONCLUSION

This study demonstrated the effectiveness of training mindfulness in reducing mania in patients with bipolar disorder. Results of other researchers such as Murray et al (2017), Struan et al (2016), Murray et al (2015), Miclowotez et al (2009), Hashemi (2014), Talebizadeh et al (1391) are in line with the results the present study, indicating the effectiveness of mindfulness training. In fact, as life is formed from various aspects, including physical, psychological, social, spiritual, occupational aspects, mindfulness exercises are designed so that they can affect all of these aspects. Mindfulness training includes knowing and awareness voluntary and based on the attention to special feelings, such as physical feeling in body

from one moment to another. However, the mind is deviated to thoughts, feelings, sounds or other physical feelings. Content of awareness is remembered and then attention slowly but seriously returns to the protected goals. This process is repeated over and over again and it is repeated again in the daily stage of comprehensive consciousness exercise. This view is facilitated through training the attention to content of thoughts separate from is moment metacognitive insight, in a way that they start and they are allowed to be out of consciousness, and then return to the primary concentration. In this method, a primary concentration like breathing can be used as a center of backrest used to return the awareness and it prevents from being distracted from reality in thought flows (Mac Keynes and Kukishi 2016). In fact, comprehensive observing the thoughts allows references to have similar thought pattern in the form of

thoughts not necessarily realities (Miri, Moludi, and Shayanmehr, 2015). Therefore, in various stages of training, by providing these techniques, we can help patients in reducing and managing mania. According to the results of this study, it is suggested that the mindfulness as one of the useful and safe treatment methods to be provided for therapists and similar study to be conducted on larger sample.

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