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

Ehsan Akhavan Salmasi[1*], Hakimeh Aghaei[2]

[1]*M. Sc in Clinical Psychology, Department of Psychology, Faculty of Humanities, Shahrood Branch, Islamic Azad University, Shahrood, Iran*
[2]*Assistant Professor, Department of Psychology, Faculty of Humanities, Shahrood Branch, Islamic Azad University, Shahrood, Iran*

ABSTRACT

Objective: the objective of this study is to determine the effectiveness of mindfulness-based cognitive therapy on the decrease of depression 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, Beck Depression Inventory (1987) was used. Data were analyzed using SPSS 23 software by using analysis of covariance.
Results: The mean scores of mania in patients of experimental group reduced from 21.93 to 16.46. The results showed that training mindfulness-based cognitive therapy had significant effect on patients' depression (0.001).
Conclusion: The findings showed that mindfulness sessions reduced depression in the intervention group. It means that mindfulness program is effective in reducing depression and it is recommended to other patients.

Keywords: *Mindfulness, bipolar disorder, depression*

Corresponding author: Ehsan Akhavan Salmasi

INTRODUCTION

Bipolar disorder is a mental illness in which patient experience severe mood swings and periods of depression and mania. This disorder has periodic nature and it is a chronic and recurring, so that according to some data, only 7 per cent of the symptoms of this disorder does not recur (Saduk, 2007). Even with continued medicinal therapy, in 73% cases, the symptoms will recur within 5 years (Talebizadeh, Shahmiri and Jafari Fard, 2012). Bipolar disorder manifests typically in late adolescence or early adulthood. There are different types of this illness that the most important types of it include bipolar disorder type one and bipolar disorder type two. The difference between these two disorders is in period of mania. This occurs in type one, but the type two, mild form of mania (semi-mania) appears. The onset of illness is usually a period of depression and after one or more periods of depression, period of mania manifests. Depression can occur before or after the period of mania in patients. A small percentage of patients may not experience depression during their illness (Pourkamali and Samsamshariat, 2014). Depression is a mood disorder that weakens the power of judgment and causes unusual behaviors. In each of the cases, the patient cannot have a normal daily life. 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 (Miclowitenz 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). Cognitive behavioral therapy, which much of experimental evidence in the field of treatment of mood disorders, especially depression has been allocated to it, has been used along with medications recently for patients with bipolar disorder. However, the results did not confirm decisive effectiveness of these treatments (Basque and Rush, 2005). Therefore, we need for treatment that along with medication to be used to help patients with bipolar disorder and solve their problems and at the same time it should be efficient and cost-effective. One of the new developments in the treatment of mood disorders is development of mindfulness-based cognitive therapy (MBC) program by Segal, Williams, and Teasdale (2002) (Talebizadeh et al., 2012). Mindfulness means paying attention to the present in a particular way and without judgment (Kabat Zin et al., 1992). Mindfulness means being in the moment with whatever is now, without judgment, without expressing view on what happens, that is, experience of pure reality without explanation (Teasdale, Segal & Williams, 2000). Mindfulness-based cognitive therapy is result of extensive research to identify factors and cognitive processes predicting

the relapse in depression, which it was proposed by Segal, Williams, and Teasdale (2002). Mindfulness-Based Cognitive Therapy involves elements of Mindfulness-based treatment to decrease stress, presented by Kabat Zinn (2003) and cognitive therapy of Beck and Steer (1993), and it was developed in the form of group therapy to work with individuals with a history of depression and thus vulnerable to next periods (Hayes, 2002). Research conducted in this area (Talebzadeh et al., 2012; Kaviani, Hatami and Shafeeabadi, 2008; Kaviani, Javaheri, and Bahraei, 2005, Jahangir Pur, Mousavi, Khosro Javid, Salari and Rezai, 2013; Farhadi, Movahedi, Kariminejad and Movahedi, 2013, Zidane et al., 2012; Miklowitenz et al., 2009; Williams et al., 2008 and Kabat Zinn, 2003) indicated the positive effect of this therapy on depressed patients. The reason for effectiveness of cognitive therapy in these studies is that mindfulness-based cognitive therapy leads to cognitive change in thinking and actions of the patient and it takes advantage of conditional strengthening. Accordingly, the patient to go to the next step tries to see himself in the higher step and to this tendency continually leads to gradually step to step improvement of patient and help patient solve his defects in in presence meetings (Ruth and Robins, 2004). It also can be said as mindfulness adjusts emotions, without judgment and increased awareness of the mental and physical feelings, it helps in clearly seeing and adopting emotional emotions and physical phenomena as happen. Therefore, it can play important role in adjusting mental health scores of patients and it has been found in studies that mindfulness therapy helps in adjustment of negative behaviors and thoughts and it causes positive behaviors related to health (Nife, 2003). However, researchers in the field of mood disorders have recently tried to develop and use this therapy on bipolar disorder. In this study, researcher evaluated the effect of mindfulness-based cognitive therapy on depression in patients diagnosed 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 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, Beck Depression Inventory (1987) was used. Data were analyzed using SPSS 23 software by using analysis of covariance. The questionnaire has 27 four-option questions, which Kaviani et al (2008) reported its validity and reliability 0.70 and 0.77, respectively.

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' presence 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 depression in groups

Variable	Group	Pre-test		Post-test	
		Mean	SD	Mean	SD
Depression	Experimental	21.93	13.39	6.4667	6.87
	Control	24.133	11.819	24.4	9.16

Diagram 1: Comparison of means of pretest and posttest for variable of depression in group.
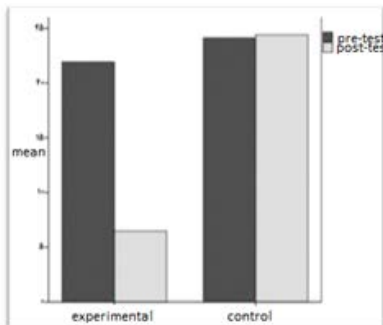
As seen in Table 1 and Diagram 1, the mean for experimental group in the post test for depression changed significantly compared to that in pre-test. Therefore, it could be said that training has significant positive impact on the patient's depression.

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 depression 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 depression pre-test score has significant impact on post-test scores. Therefore, initial difference of pre-test scores in groups affects the depression post-test scores, and after removing the effect of covariate (pre-test scores), the results showed differences in mean of groups in the depression 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	3421.726	55.813	2	0.001	0.805
Fixed effect	132.076	4.309	1	4.309	0.138
Pre-test	1009.693	32.939	1	32.939	0.55
Group	2121.627	69.214	1	69.2014	0.719
error	827.641		27		
Total	11395		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 depression was 0.001, 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 general depression

Groups	Mean difference	P-value	Test result
Experimental and group	16.887	0.001	There is significant difference between two groups

DISCUSSION AND CONCLUSION

Mindfulness is a concept used in recent years' scientific communities. Techniques of mindfulness are increasing used in Western psychology and psychotherapy for the alleviation of the symptoms of various diseases. While it is rooted in Buddhism culture, it has been used well in western non-religious context. Therefore, mindfulness, especially mindfulness-based cognitive therapy has been placed within community-based treatments of depression and it provides necessary trainings to reduce depression. Mindfulness-based cognitive therapy was adopted from Kabat-Zinn mindfulness-based stress reduction model, and principles of cognitive therapy were added to it. 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 make it possible to pay attention to physical and surrounding situations in the present moment and reduce automated processes of anxiety and depression. Mindfulness Meditation activates one area in brain that creates positive emotions and useful effects in safe functioning of the body. Findings of this study showed that mindfulness-based cognitive therapy reduces depression of patients. In this regard, research conducted in this area (Talebzadeh et al., 2012; Kaviani, Hatami and Shafeeabadi, 2008; Kaviani, Javaheri, and Bahraei, 2005, Jahangir Pur, Mousavi, Khosro Javid, Salari and Rezai, 2013; Farhadi, Movahedi, Kariminejad and Movahedi, 2013, Zidane et al., 2012; Miklowitenz et al., 2009; Williams et al., 2008 and Kabat Zinn,

2003) confirm the findings of the present study. In explaining the results obtained in this study and investigating the results of other researchers, it can be said that patients participated training sessions of mindfulness-based cognitive therapy could gain much dominance on their negative thoughts, increase their abilities to tolerate negative emotional states, take an important step in controlling their illness. The reason for effectiveness of mindfulness-based cognitive therapy in this study is that mindfulness therapy leads to cognitive change in the patient's thinking and actions and it takes advantage of conditional strengthening. Accordingly, the patient to go to the next step tries to see himself in the higher step and to this tendency continually leads to gradually step by step improvement of negative emotions.

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