

## **MINDFULNESS-BASED COGNITIVE THERAPY ON SKILLS AND MINDFULNESS COMPONENTS OF DEPRESSED TEENAGE GIRLS IN SARDASHT CITY**

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### **ABSTRACT**

The aim of this study was to determine the effectiveness of mindfulness-based cognitive therapy on skills and mindfulness components of teenage depressed girls of Sardasht city that was conducted through clinical trial. The sample consisted of 50 patients (25 control group and 25 experimental groups) that were selected by the two-stage random sampling method, based on the intention out of Sardasht high schools. Then quite by accident, one of these groups was selected as the experimental group and the other as control group. The experimental group received eight sessions of mindfulness-based cognitive therapy guide. The revised Mindfulness-based cognitive and affective questionnaires and counter mindfulness scale were performed before and after the intervention on all subjects of two groups. Analysis of covariance was used to analyze the data. The results showed that mindfulness-based cognitive therapy has caused to reduce negative automatic thoughts and increase sitting focus, acceptance of negative emotions, ability to understand the emotions, and the ability of distraction. According to the results, it can be said that mindfulness-based cognitive therapy has proved its effectiveness on clinical and non- clinical populations and, besides various disorders, appears to be effective in improving infrastructure components involved in recurrent depression in teenage girls.

**Keywords:** *Cognitive Therapy, Mindfulness, Depression, Teens, Girl*

### **INTRODUCTION**

The Depression is still a controversial issue in mental health and still has much to be done on it. The depression is a common experience as a normal mood. In mild depression, one deal with rumination on negative issues and often experiences feeling boredom, irritability and anger experienced while saddened and grieved for you and is desperate to get the confidence of others. People who are experiencing mild depression, obsession with the past and the future are pessimistic (Clark and Fairbairn, 2007).

The reported prevalence of major depression varies from one percent to about 6 percent in the general population and the rate of depression among girls are twice as likely as boys (Schaefer, 2005). Estimates of the prevalence of depression among s varies between 14 and 25 percent and among hospitalized children with major depressive disorder is higher than in the general population, 20 percent of children and 40 % in s. Depression occurs in every early age but is more common in older ages. Depressed Kids are often irritable, deprived of friends and family and academic performance is impaired that leads to a devastating social isolation.

Core features of major depressive disorder in children, s and adults is markedly similar though the growth factors will affect the clinical presentation. The prevalence of lifetime anxiety disorders varies in children and s, 3.8 to 27 percent (Sadok and Sadok, 2007).

Given the prevalence of these disorders in s, especially girls, dealing with the crowds that has flood of disturbances in its heart is important.

s in the period of transition from the stage encounter with the important and challenging issues of puberty, identity formation, the transition from childhood to adulthood and employment or education decisions and they even being ready for marriage, any which can cause additional stress. Parents of teenagers interpret the behaviors of them as deviant from their interests and selfish see them as bias and deliberate (Dix *et al.*, 1991; quoted in Kotzors, 2010). No doubt s in the transition period encounter with new experiences that may have different coping resources of stress, pressure and jeopardize their well-being.

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In fact, researches have shown that transitional adolescence is a period with a lot of stressful situations and is specified (Rudolf and Haman, 1999 quoted Rudolf, 2002) with physical and psychological stress and is associated with multiple problems (Kampas *et al.*, 1987).

The researchers have started to pay attention to exposure and stress activity and gender differences in emotional distress. One of the strongest findings in psychopathology researches is increased vulnerability to depression and anxiety in girls compared with boys. This vulnerability is even more pronounced during adolescence and continues into adulthood as well (Rudolf *et al.*, 2000 quoted Rudolf, 2002). When s in the context of family and friends encounter with interpersonal stress, girls tend to be more negative emotional responses in the form of anxiety and depression. Mindfulness-based cognitive therapy (MBCT) can effect on increasing the coping skills of both depressive symptoms and psychological symptoms of stress and anxiety in vulnerable girls (Duncan *et al.*, 2009). Unfortunately, in our country clinical population and the impact of mindfulness-based interventions have not received attention, although the adult population of mindfulness-based cognitive therapy on symptoms of various efficiency have been fully investigated compared with other treatment approaches. Mohammad and *et al.*, (2011) found that MBCT can be effective just as innovative cognitive behavioral therapy in reducing depression symptoms and relapse in patients with major depression. These treatments are more effective than drug therapy for preventing recurrence at 6 months follow-up. Omid and *et al.*, (2008) also found that a combination of cognitive-behavioral therapy with mindfulness-based approaches would be more effective than current treatments for depression in depressed patients referred to counseling centers have several universities in Tehran. Also Sadeghi *et al.*, (2010) and MBCT reported combination therapy in the treatment of depression divorced women to be effective. As was shown, the effectiveness of MBCT in depressed adults was proved, but its impact has not been studied in s with depression and anxiety symptoms, although its effect on other symptoms have been reported in Iran, including reducing obesity and psychological symptoms in obese patients (Mousavian *et al.*, 2010), in the prevention of relapse and increase motivation in drug-dependent individuals (Kldvy *et al.*, 2011), rumination and depression of University Students (Azargoon *et al.*, 2009), and enhance the quality of life in blind veterans full (Save *et al.*, 2011). A large number of specialists have interested in learning the techniques of mindfulness and its applications in their work (Bauer, 2003). Performing Mindfulness-based intervention that are experiencing with Medetation techniques, is essential for professionals and most importantly mindfulness-based intervention in s heavily has been increased in clinical populations (Bvvtzyn and Stvnz, 2005; Zylvska *et al.*, 2007; Sen *et al.*, 2007; Byyjl *et al.*, 2009 (and in non-clinical population (Wall, 2005; Byvchmyn *et al.*, 2009) and their performance in various disorders and non-clinical population. Understanding the effects of these types of interventions, especially mindfulness -based cognitive therapy (MBCT) on various symptoms of depression and the mechanism of its influence with Iranian young people with mental health professionals is necessary.

However, with the review of literature in Iran, it is observed that the impact of MBCT on depressive symptoms has been studied. But there are gaps in the research literature; First, little attention to depression in adolescence and the impact of this approach on it. Secondly, the impact MBCT on various symptoms such as depression, physical symptoms, cognitive and emotional depression in general is not known and studied, and third, the impact of MBCT on symptoms of anxiety and depression has not been dealt with. This research seeks to respond to the uncertainties that exist in the literature. As MBCT as mindfulness-based stress reduction approach is derived, can be it effective in anxiety with depression symptoms and could it be used for s.

## **MATERIALS AND METHODS**

### **Methods**

The research methodology is quasi-experimental clinical trial study (pre-test plan, post-test control group). The population of this study is all second and third year female students studying in Sardasht high-schools in the first semester of the academic year 2014-2015. The Sardasht city has two high schools for girls that have totally 350 students in three fields of humanities, natural sciences and mathematics. In

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this study, the population was students who score above 18 on the Beck Depression Inventory among 350 students of Sardasht, about 73 had a score higher than 18 on the Beck Depression Inventory. The students who score 18 or higher on the Beck Depression Inventory, Inventory Structured Clinical Interview were evaluated for Axis I disorders in DSM-IV (Frest *et al.*, 2005) and when they have the criteria for major depression based on Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV-TR), were participated in the study. Of these 68 patients with clinical depression criteria that 5 people were not willing to participate in research. Of the 63 patients, 50 patients were selected randomly and were participated in the clinical trial after obtaining the consent of a parent's consent. Of the 50 samples, 25 were randomly as the independent variable groups (mindfulness-based cognitive therapy) were tested in groups and 25 received no intervention by the end of the study as a control group. Research instruments included: cognitive and emotional revised scale of mindfulness (CAMS-R). This scale includes 12 items that measure the experience of mindfulness of daily experiences. The scale is made to be used to measure attention, focus, awareness and acceptance of thoughts and emotions without judgment. This scale consists of 4 subscales of attention; focus on the present, awareness and acceptance measures, respectively (Hayes & Feldman, 2004). Cronbach's Alpha coefficient for the CAMS-R Sardasht girls was 0.87 and its test- retest interval of two weeks was 0.68 (N=30) that was indicative of moderate to high reliability of external investigations.

**Scale Counter Mindfulness:** The scale was made to measure aspects of coping theory of mind awareness by Taralsn and Brive (2011). This scale has four subscales, and measures the various aspects of the conscious mind deal of awareness, distraction, avoid negative emotions, and self-expression builder. The Cronbach's alpha coefficient for MCS Sardasht girls was 0.77 and its test- retest interval of two weeks was 0.63 (N=30) that was indicative of moderate to high reliability of external investigations.

**Beck Depression Inventory (BDI):** This questionnaire has 21 questions and has been developed by consultation of clinicians about symptoms of depressed patients. This questionnaire has 21 questions each has four options (0, 1, 2, 3). Participants answer the questions by drawing a circle around the number that is commensurate with their feelings in that week. Symptoms of exposure are separated by dividing into the three groups of seven material, including signs of emotional, motivational and cognitive symptoms, physical signs. Test -retest reliability of the test result for a lifetime diagnosis of depression for 82.6, 83 recent attacks, as well as its validity through  $\kappa$ , 0.49 to 0.64 sensitivity and specificity showed that represents the characteristics 0.89 psychometric suitable for an Iranian population.

The analysis of covariance (ANCOVA) is used to analyze the data. Kolmogorov- Smirnov for normal distribution of the dependent variables and Leven's test is used test for equality of variances.

## RESULTS AND DISCUSSION

### Results

#### First Hypothesis

Mindfulness-based cognitive therapy (MBCT) has caused to decrease the negative automatic thoughts of depression in s with depression high-school girls. As you can see in Table 1, summarized the results of covariance analysis, after adjustment for pretest scores given variable, the experimental group (the group that received training MBCT) has higher scores in the post-test compared to the control group had more scores on the mindfulness based attention ( $0.05 > p$ ,  $5.49 = 47$  and  $1 F$ ). The first hypothesis is confirmed. Eta squared or impact study suggests that interventions have caused to increase attention ability of the experimental group compared to the control group by 10%.

**Table 1: Analysis of covariance attention to post-test in both control and experimental groups**

Impact factor	P	F	Mean square (MS)	Degree of freedom (df)	Source
0.02	0.27	1.24	2.37	1	Pre-test groups mistakes total
0.10	0.02	5.49	10.52	1	
			1.91	47	
				50	

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### Second Hypothesis

Mindfulness-based cognitive therapy (MBCT) has caused to increase focus on young high school depressed girls. As you can see in Table 2, summarized the results of covariance analysis, after adjustment variable test scores on the experimental group (the group that received MBCT training) had more focus on the post-test scores than the control group ( $0.05 > p$  7.44 = 47 and 1 F). Eta squared or impact study suggests that interventions increased by 13 percent focus sitting experimental group compared to the control group. The second hypothesis is confirmed.

**Table 2: Focuses on the analysis of covariance to test the experimental and control groups**

Impact factor	P	F	Mean square (MS)	Degree freedom (df)	of Source
0.09	0.03	4.75	12.58	1	Focus on the present pre-test groups mistakes total
0.13	0.009	7.44	19.72	1	
				47	
				50	

### Third Hypothesis

Mindfulness -based cognitive therapy (MBCT) increases acceptance of negative emotions in young high school depressed girl. As you can see in Table 3, summarized the results of analysis of covariance, after adjusting pre-emotional acceptance testing experimental group (the group that received training MBCT) had higher emotional acceptance in the post-test scores than the control group ( $0.05 > p$ , 2.8 = 47 and 1 F). Eta squared or impact study suggests that interventions increased the emotional acceptance experimental group compared to the control group by 14 percent. The fourth hypothesis is confirmed.

**Table 3: Analysis of covariance for emotional acceptance test in two experimental and control groups**

Impact factor	P	F	Mean square (MS)	Degree freedom (df)	of source
0.03	0.7	0.13	0.59	1	Focus on the pre-test groups mistakes total
0.14	0.006	2.8	42.36	1	
				47	
				50	

### Fourth Hypothesis

Mindfulness -based cognitive therapy (MBCT) increases the ability to understand the emotions of the young high school depressed girls.

As you can see in Table 4, summarized analysis of covariance, after adjusting pre-test knowledge of the experimental group (the group that received MBCT training) had aware of the excitement than the control group in post-test scores were ( $0.05 > p$ , 6.11 = 47 and 1 F).

**Table 4: Analysis of covariance for the knowledge test for experimental and control groups**

Impact factor	P	F	Mean square (MS)	Degree freedom (df)	of source
0.19	0.002	37.11	93.78	1	subjective awareness test groups mistakes total
0.19	0.001	6.11	58.80	1	
				47	
				50	

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Eta squared or impact study suggests that interventions to increase the mental awareness experimental group compared to the control group by 19 percent. So the hypothesis is confirmed.

### Fifth Hypothesis

Mindfulness -based cognitive therapy (MBCT) increases the ability of distraction from negative emotions in high school depressed girls.

As you can see in Table 5, summarized the results of analysis of covariance, after adjusting pre-test scores ability distraction group (the group that received MBSR training) had higher score in the post-test compared to the control group in the ability of distraction from negative emotions Scores ( $0.05 > p$ ,  $8.11 = 47$  and  $1 F$ ). Eta squared or impact study suggests that interventions increased the distraction experimental group compared to the control group by 2 percent. The fifth hypothesis is confirmed.

**Table 5: Analysis of covariance for the distraction test in two experimental and control groups**

Impact factor	P	F	Mean square (MS)	Degree freedom (df)	of source
0.4	0.000	56.31	27.779	1	Pretest distraction groups mistakes total
0.2	0.001	8.11	3.291	1	
				47	
				50	

## Discussion and Conclusion

The Covariance analysis of variance showed that mindfulness-based cognitive therapy reduced negative thoughts in depressed girls. These findings are consistent with the findings of Mohammad and *et al.*, (2011), Hope and *et al.*, (2008), Crane *et al.*, (2010), and Kenny and Williams (2007). To explain these findings, it can be stated that, according to Segal (2002) Mindfulness teaches patients (a) identify malicious content and mind habitual patterns (b) process the information in a non-judgmental manner to facilitate their ability to choose between different options. This approach increases flexibility on the cognitive activity, decreases the rumination, more an extension of their autobiographical memory, and increases the useful cognitive processes such observing non-judgmental in the content of the mind. This means that the people who have had periods of depression in the past are less affected in this way by mood swings and reactivating destructive patterns of thoughts that potentially causes to make a downward spiral of depression.

The results of analysis of covariance showed that mindfulness-based cognitive therapy increased focus on depressed girls. These findings are Karmvdy *et al.*, (2008), Burke (2010) and Asklmn (2004). To explain these findings, we can state that different definitions of mindfulness provided a definition that has recently become popular mindfulness, "a consciousness knows that attention is focused on the goal of being in the moment, and spreading the experience emerge from time to time and non-judgment"(Brown *et al.*, 2007; Kabat - Zinn, 2003). Or more simply, a precise awareness of what is happening in the person and the environment (Fontana and Slack, 1998). The underlying idea of mindfulness is to focus on a particular manner and keep in touch with the present and experience the stress to a minimum. The logic of the claim is that the disorder usually associates with thinking of the past or upcoming events and the future (Flute and Berkovic, 2007). Anxiety and depression reduce, as what causes these emotions are fundamentally linked with fear of the future and past sorrow (Berkovic, 2002). As Berkovic believes, by freeing ourselves from the bondage of these interventions, we can open our arms linked to environmental information, which could raise compatible responses. We can process input data more accurately to and choose more appropriate behavioral responses (Bauer, 2003).

Analysis of covariance demonstrated that MBCT training increases acceptance of negative emotions by female depressed students. To explain these findings, it can be that the tendency to see things as they are (Kabat - Zinn, 1990). Acceptance allows us to see more clearly what is going free of any judgment or orientation. If we resist, especially because of the fact that we want them otherwise, then we put the stress and tension in our life (Kabat - Zinn, 1990). With openness and acceptance of feelings or experiences,



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understand and manage how the response can be facilitated (Kabat - Zinn, 1990). Kabat- Zinn (1990) believes that the acceptance is not a passive response, but more inclined to look to inner experiences and events as they are at present. In fact, in his vision acceptance is to accept the truth of present and now (Kabat - Zinn, 1994). In this view, the mind is like a mirror that reflects only the events that occur as without prejudice, bias, its demands or criticism (Ganaratana, 2002). Learning mindfulness and guidance is likely to increase the ability to focus attention and then lead to alter information processing patterns that are associated with the onset of emotional problems. Of course, this is not only a potential mechanism to influence the mind. The second factor is considerably more than what the attitude is changing attitudes towards the content and processes schemas. The basic rule that governs the presence of mind of the selection approach is that it is accepted without Bout (Kabat Zinn, 1990) that is called acceptance or fault. The prevailing view in psychology attitude struggle badly against a very strong emphasis on the need for the West is that the change is to improve living conditions (Beyer, 2003). For example, in CBT therapist works with the client in such a way that after the identification of dysfunctional attitude to challenge and change them. We encourage people to examine their thoughts in Mindfulness-based approaches to and then turned his attention to the task that is being done, (Kabat Zinn, 1990).

The analysis of covariance demonstrated that MBCT training enhances their ability to depressed teenage girls in distraction of the negative emotions. To explain these findings, it can be stated that, according to MBCT, paying attention in a particular manner to focus attention on the need to be aware of the way, the monitoring center of attention. In cognitive psychology review process in which thought processes are done reviewing the focus is metacognition. This review is a prerequisite for actively directing attention, but may also have benefits as well as itself. Metacognitive processes allows the development of a decentralized state will provide ideas, because the ideas are perceived as transient mental events rather than direct representation of reality they necessarily be interpreted, in this case leads to cognitive insight. One advantage of such a flexible way of considering the creation of conceptual smoother and more fluid than its relationship with the contents of mind. Tuning Meditation is considered one of the primary administrative processes. Very challenging aspects of meditation is to train the mind to stay constant in the present moment. The patient in the practice of meditation, learns the focus and changing the direction (Bishop, 2002). Buri and Rotbart (1988) have defined the amended effective self-regulation of arousal through selective attention to positive stimuli. In this regard, Carol (1999), raised the idea that people with high levels of performance are able to turn towards their goals after a defeat or failure of your attention without engaging rumination about the reasons for their failure. In addition, a strong focus on defining peak experience is one of the distinctive features. Stressed that the presence of mind to enjoy the moment without trying to judgment is consistent with the characteristics of peak experience (quoted from Bishop, 2002).

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