

The Effectiveness of Mindfulness-Based Cognitive-Behavior Therapy in Mindfulness and Cognitive Emotion Regulation in Patients with Persistent Depressive Disorder

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Abstract: Persistent depression disorder is a common problem and mindfulness-based cognitive-behavioral therapy has considered as effective treatments in this field. The aim of this study was to assess the effectiveness of mindfulness-based cognitive-behavior therapy in mindfulness and cognitive emotion regulation in patients with persistent depressive disorder. Two patients with persistent depression were selected through convenience sampling. Each six times by the Mindfulness Questionnaire (FFMQ) Bauer, emotion regulation Difficulties Questionnaire (DERS) and Beck Depression Inventory (BDI-II) were evaluated. The study use single participants multiple baselines, the data collected using repeated measures analysis and data analysis using graphs were analyzed. Formula cure rate and recovery detection criteria for judging the recovery rate was applied. Participants with persistent depressive disorder with high percentages of recovery in the post-treatment and 30-day follow-up study proved its effectiveness in all the variables. Mindfulness-based cognitive-behavioral therapy and mindfulness based cognitive emotion regulation in patients with persistent depressive disorder is effective. Therefore, it should be attended by clinicians more.

Key words: Cognitive therapy, presence of mind, mindfulness, emotion regulation, effectiveness

INTRODUCTION

Mood disorders are wide group of clinical disorders that create pathological and its related disorders and formed predominant and main clinical features. Creation is stability emotion inertly experience and behavior affected by the perception of the world. However, it included the people's external manifestation of emotion. Therefore, mood disorders than the term "affective disorder" to describe and name the psychological problems with this aspect is more appropriate (Ladan, 2010). People often experience a wide range of mood states and emotional protests and believe that they overcome these emotional states. In mood disorders this sense of mastery are gone and the person is endured many suffer (Mohammad *et al.*, 2013).

Since dysthymia over a long period and sometimes continue for a decade, people with the disorder tend to have depression as they are part of their life (The consonant such as personality disorders that overlap factor ad this disorder is similar to cluster 2) and so may declared it with their family members and friends (Mohammad *et al.*, 2013). According to the World Health Organization, 121 million people worldwide suffer from depression and it is anticipated that in the coming years is the second most common disease that affects people and constitute almost 11% of all diseases (Zindell *et al.*, 2012).

Although dysthymia, compared with major depression is less however, 19% of depressed patients diagnosed with dysthymic and enter into treatment (Reza and Azadeh, 2010) about 40% of recent references to psychiatric clinics show some dysthymic mode and >47% of people admitted to public clinics suffer from dysthymia symptoms.

Mindfulness is a form of meditation inspired by the east teachings and rituals, especially Buddhism. Kabat Zinn, mindfulness has special attention, purposeful, in the present and without any judgment or prejudice has been defined.

Mindfulness refused to grow three qualities of judgment, purposeful awareness and focus on the present moment requires individual attention which focused attention on the present moment experience of the immediate processing of all aspects of cognitive activities, physiological or behavioral. Through individual's exercises and mindfulness-based techniques to the daily activities of self-consciousness, the automatic function of the mind in the world of the past and present find knowledge through real-time awareness of thoughts, feelings and gestures to control it and everyday mind and automatic focused on the past and future released.

Several studies have shown that due to the nature of the impairment review, non-drug treatment, especially in

the field of cognitive behavior therapy long as the solution for the treatment of dysthymic have been used. However, the effectiveness of classic cognitive therapy or Moore's model for treating people with persistent depressive disorder been associated with slight positive treatment effects. Few activities in the field of meta-cognitive therapy for depression is performed. As well as through the identification persistent schema dominant in patients with depression helped to reduce symptoms and improve them. Therapy Schema is one of treatments on persistent depressive disorder that is effective in reducing rumination and patient's anxiety.

Although, the prevalence of the disorder compared with major depression, is lower; however, 25-40% of patients admitted to psychiatric clinics, show cases of dysthymia. Dysthymia compared with those with major depression has lower levels of compatibility, poorer prognosis personality melancholic signs and attributes (features) are more depressive. According to the diagnostic criteria for DSM-V common feature of persistent depressive disorder is presence of depressed mood in most of the day and on most days. Dysthymic disorder is chronic disorder associated with feelings of inadequacy, guilt, irritability and anger, isolation from society, loss, interests, inactivity and lack of productivity.

Prior to 1980, the majority of patients who suffer from dysthymia today are depressive neurosis was called neurotic depression; until in 1980 dysthymia term means dysthymia and surf conditions. The major complaint of people with dysthymia was continuing depression in most of their lives. In most cases, the disorder begins at early onset in childhood or adolescence. Lower starting age from 21-25 years is directly related to the chronic progression of chronic depressive disorder. Although, persistent depressive disorder comorbidity with a series of mental disorders such as substance use disorders and personality disorder, there are reasons to distinguish between anxiety and dysthymia: First that the comorbidity of dysthymic and anxiety are very common.

About 50% of people also experience depression, anxiety disorder. Second, it may has comorbidity with leading causes of depression and anxiety disorders. Mindfulness is a form of meditation inspired by the east teachings and rituals particularly Buddha. Kabat Zinn, pay purposefully special attention to mindfulness, on present time and without any judgment or prejudice has been defined. Mindfulness refused to grow three qualities of judgment, purposeful awareness and focus on the present moment requires individual attention which focused attention on the present moment experience of the immediate processing of all aspects of cognitive activities, physiological or behavioral. Through

individual's exercises and mindfulness-based techniques to the daily activities of self-consciousness, the automatic function of the mind in the world of the past and present find knowledge through real-time awareness of thoughts, feelings and gestures to control it and everyday mind and automatic focused on the past and future released.

The emotion regulation concept is very broad and included a range of conscious and unconscious processes, physiological, behavioral and psychological. These strategies depend on emotional, cognitive and social transformation. Emotion regulation can be conscious or unconscious, transient or long-term, cognitive or behavioral. Behavioral and emotional regulation of emotion regulation in a way that is not visible, unlike cognitive emotion regulation; clear and visible outside the person's behavior and cognitive emotion regulation is transient and not permanent.

On the other hand, an important aspect of emotion regulation is emotion regulation through cognitive elements. This aspect of cognitive regulation called emotion implies on cognitive manipulation of data entry arousing excitement. Different theorists have different areas for cognitive emotion regulation have raised. These areas in order to accomplish the process of cognitive emotion regulation interact with each other. Areas that have been provided in this regard include:

- Emotional expression through the body and face (processing)
- The excitement expressed clearly by the person
- The consciousness of excitement which is experienced
- Awareness of emotional stimuli and knowledge about the consequences to express emotions in the culture

Person's ability to severity feel and express emotion. But in many studies focus on three areas that Menesini has been raised. The three areas are:

- Set the senses (set input)
- Information processing (central configuration)
- Select answer (set the output)

Menesini believed that these areas and their interaction are in the process of cognitive emotion regulation has a relationship chain, so good situation for creating any problems in any of these areas makes the process of cognitive emotion regulation disturbed; the idea rejected in the subsequent investigation.

Mindfulness Based Cognitive Therapy (MBCT) is an 8 week protocol that has been developed for the prevention of recurrence of major depressive episodes.

The most common approach to the prevention of recurrence after recovery is continuing antidepressant. Unfortunately, this approach is effective only as long as the drug continues and discontinuation of treatment has been reported in about 30-40%. Some patients such as pregnant women should not use drugs, while others cannot tolerate the side effects or do not want to take them for a long time.

Research findings also suggest that Cognitive Behavioral Therapy (CBT) for treatment of severe episodes of depression and are effective for reducing the risk of recurrence. However, the delivery of CBT or other empirically supported psychotherapies by taking into account the prevalence of depression, lack of trained specialists and low levels of depressed people who seek treatment are probably not possible for all people with depression. Mindfulness-based cognitive therapies in order to provide cost-effective approach for prevention of recurrence in patients who have had previous period and successfully treated with antidepressant drugs have been designed. Skills training to reduce the risk of recurrence without relying on long-term use of the drug are designed. Mindfulness-based cognitive therapies included five common mechanisms:

- Describes: the ability to express inner experiences with words
- Viewing: thoughtful process or due to internal and external experiences
- Act with awareness: addressing current activities now and often act automatically be compared
- Lack of judgment: the admission of non-evaluative comments about the thoughts and feelings
- Lack of reactivity: allowing entry and exit thoughts and feelings without reacting or repair them

MATERIALS AND METHODS

This study is a single subject multiple baselines design that in order to assess the impact of mindfulness-based cognitive therapy is performed. Single subject study has a long history in psychology, in fact as alternative for case study method is created. Although a case study in clinical psychology is very importance, there are many explanations for many problems including facing results. In addition, the main problem case study can be considered as generalization of the results obtained. Also in method contrast to group method focuses average and therefore are not considered personal information, the necessary information about the impact of independent variables or experimental method on all subjects.

For this reason, given the positive, single-subject experimental designs (like a relative control over experimental conditions, continuous measurement and baseline measurement), single-subject experimental design was used in this study. The study population included all patients of chronic depressive disorder at 6 months of 1394 attended in Mehregan Counseling and Psychotherapy Clinic. The sample available sample of patients who referred to Mehregan Counseling and Psychotherapy Clinic with a diagnosis of chronic depression in the first six months of 1394 took place.

Among patients referred to the clinic, 3 patients with chronic depressive disorder were selected by convenience sampling method and by mindfulness-based cognitive therapy intervention treated. In this study, after the diagnosis of chronic depression, according to the therapist was found and then obtain patient consent and explain the project to them, in terms of our patients to receive treatment, treated by mindfulness-based cognitive therapy intervention. Participants in the study were treated for 8 sessions of 90 min. At baseline, all patients have completed their action research tools. Then the participants were determined intervention in the meetings of the second, fourth, sixth at the end posttest after intervention and one month after posttest, follow up treatment performed.

Research tools:

- Structured Clinical Interview for axis disorders (SCID-I)
- Beck Depression Inventory-Second Edition (BDI- II)
- Bauer *et al* Mindfulness Questionnaire (FFMQ)
- Cognitive emotion regulation questionnaire
- Treatment used in this study was applied individually

Treatment program were presented in 8 sessions and topics, exercises and homework session of Mindfulness-Based Cognitive Therapy corresponding treatment of the Practical Guide (Segal, Williams and Teasdale, translated by Mohammad Khani), used.

The method of data analysis: In the present study to analyze the data, charts and review the impact, coefficients were used. Also, use the following formula to calculate the recovery percentage changes are:

$$MPI = \frac{[(\text{Baseline Mean} - \text{Treatment Phase Mean})]}{\text{Baseline Mean}} \times 100 \quad (1)$$

$$MPR = \frac{[(\text{Baseline Mean} - \text{Treatment Phase Mean})]}{\text{Treatment phase Mean}} \times 100 \quad (2)$$

$$\text{Cohen's } d = M1 - M2 \sigma \text{ pooled} \quad (3)$$

Where:

$$\sigma \text{ pooled} = \sqrt{[(\sigma_1^2 + \sigma_2^2) / 2]} \quad (4)$$

In this Equation MPI cure rate, MPR percent reduce in scores and cohens shows variability rate. The index respectively process changes, slope, show variability. Equation of cure percent is one method of measuring the progress of client is targeted at reducing problems. The formula used by Blanchard and Schwars first.

In Equation percent recovery, individual score in pretest and post-test scores of individual subtractand make sure it is divided pretest score. At least 50% results are significant clinically.

Research questions and objectives: In this study, we are looking at the effectiveness of mindfulness and emotion regulation and management of dysthymic patients using medical practices of mindfulness-based cognitive behavioral therapy as third wave is valid treatments from psychotherapy that has been done in this research area. The question for us is: Does Mindfulness-Based Cognitive-Behavioral Therapy (MBCT) in Mindfulness is effective for patients with persistent depressive disorder?

Does Mindfulness-Based Cognitive-Behavioral Therapy (MBCT) in cognitive emotion regulation is effective for patients with persistent depressive disorder? Persistent depressive disorder is prevalent in society and that many people out there suffer this disorder and its consequences in everyday life. This disorder overlap with other psychiatric disorders such as anxiety disorders is high. Chronic depression on the bottom of mindfulness, cognitive disorder is effective.

Generally, the disorder effect on cognitive, emotional, physiological, behavioral and motivational person functions. The latest research in the field of treatment of chronic persistent depressive disorder and low current treatments for psychological response and a history of previous treatment failure point.

Due to the use of different psychological treatments so far the researchers examined and on the disorder and the effectiveness of their low and given the high prevalence of the disorder among people and its impact on different aspects of life, in this study, through mindfulness-based cognitive-behavioral therapy to alleviate the symptoms of depression.

The aim of this study was to evaluate the effectiveness of Mindfulness-Based Cognitive-Behavioral Therapy (MBCT) in mindfulness and cognitive emotion regulation in patients with continuous depression.

In this study, it is assumed that:

- Mindfulness-based cognitive-behavioral therapy on mindfulness patients with persistent depression is effective
- Mindfulness-based cognitive-behavioral therapy on mindfulness is effective in cognitive emotion regulation for patients with persistent depression

RESULTS AND DISCUSSION

In this study, results are presented in tables and graphs. All subjects underwent eight sessions of therapeutic treatment known as Mindfulness-Based Cognitive Therapy (MBCT) received. Demographic characteristics mentioned in the first and percent recovery factor and stage effects and Cohen baseline, the mean treatment sessions (second session, after the fourth, sixth session, after treatment) 30 day follow-up period presented. Demographic variables are summarized in Table 1 have been reported and scores and the results of each participants depression at baseline meetings, 2nd, 4th, 6th after 30 days of treatment and follow-up, along with the percent recovery factor and Cohen, the tables and related charts are examined separately.

As Table 1 shows, subjects of both genders in the age range 30-40 years are demographic variables every three undergraduate education, marital status, all three men were married in demographic variables and 3 subjects had no history of drug therapy. To assess depression in patients with chronic depression, the Beck Depression Inventory (BDI) was used.

The results presented in Table 2 show that score of subjects 1 on mindfulness scale in step baseline 97 and post-treatment 157 and follow-up is 155 and as you can see the process had increased since the recovery percentage, the top 50 and high effect size is 0.8 and it show the effectiveness of treatment on subjects number 1. The subjects 2 on mindfulness scale in step baseline 82, post-treatment 144 and follow-up 139. As you can see, it shows effect of the intervention and where the cure rate above 50 and high effect size is 0.8, it shows the effectiveness of mindfulness-based cognitive-behavioral therapy in subjects 2. Subjects 3 on mindfulness scale in step baseline 101 baseline, post-treatment 158, follow-up 159, it shows treatment on the participants had an increasing effect in subject 3 and where the cure rate is over 50 and effect size 0.80, it shows the effectiveness of the treatment on the subject 3.

The effect of Mindfulness-Based Cognitive Therapy (MBCT) mindfulness in patients with chronic depression scores changes by tracing the graph for each of the subjects shows the effectiveness of treatment.

Table 1: Demographic data of subjects participating in this research

| Subjects | Age | Gender | Education | Job | Marital status | Previous or current treatment |
|------------|-----|--------|-----------|----------|----------------|-------------------------------|
| Subjects 1 | 35 | Male | Bachelor | Employee | Married | No |
| Subjects 2 | 42 | Female | Bachelor | Employee | Married | No |

Table 2: Scores of 1-3 at the baseline, during treatment after treatment, follow-up, percentage of recovery, Cohen coefficient and impact factor subjects

| Subjects | Baseline | 2nd session | 4th session | 6th session | Post treatment | Average interventions | Cure rate post treatment | % reduction in scores post treatment | Cohen coefficient average interventions | The average impact factor interventions | Follow-up meeting | Cohen coefficient follow-up meeting | Multiplier effect follow-up meeting |
|----------|----------|-------------|-------------|-------------|----------------|-----------------------|--------------------------|--------------------------------------|-----------------------------------------|-----------------------------------------|-------------------|-------------------------------------|-------------------------------------|
| | | | | | | | | | | | | | |
| Second | 82 | 90 | 106 | 132 | 144 | - | 11.53- | 33.33- | 11.4- | 89.0- | 139 | 18.6- | 98.0- |
| Third | 101 | 128 | 152 | 161 | 158 | - | 55.00- | 44.34- | 34.3- | 82.0- | 159 | 48.5- | 92.0- |

Table 3: Scores of subjects with continuous depression in scale cognitive emotion regulation at the baseline, during treatment, posttreatment, follow-up and effectiveness

| Effect follow-up meeting | Cohen coefficient follow-up meeting | Cohen coefficient average interventions | Cohen coefficient average interventions | Percentage reduction in scores | Recovery (%) | Follow-up meeting | Average interventions | | | | | | |
|--------------------------|-------------------------------------|-----------------------------------------|-----------------------------------------|--------------------------------|--------------|-------------------|-----------------------|----------|----------|-------------|-------------|-------------|----------------|
| | | | | | | | | Subjects | Baseline | 2nd session | 4th session | 6th session | Post treatment |
| 0.99 | 28 | 0.85 | 2.30 | 3071 | 50 | 53 | 66.0 | 52 | 49 | 59 | 79 | 91 | 1 |
| 0.99 | 37 | 0.82 | 2.01 | 2050 | 53 | 53 | 70.2 | 53 | 53 | 62 | 82 | 101 | 2 |
| 0.99 | 27 | 0.87 | 2.61 | 2149 | 54 | 57 | 67.8 | 49 | 50 | 73 | 80 | 87 | 3 |

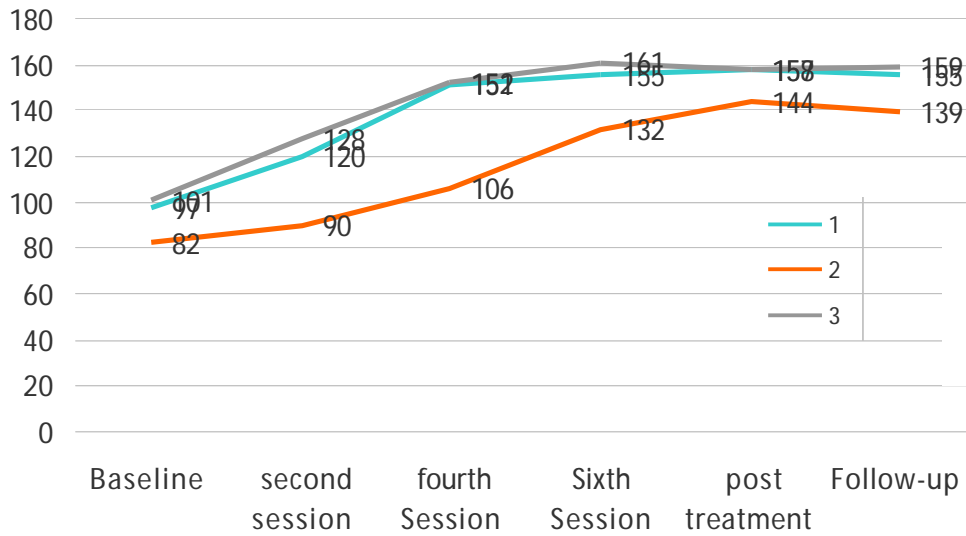


Fig. 1: View the subject's changes receiving MBCT on mindfulness variable

Figure 1 shows the number of first grade students who received MBCT in variable mindfulness, during post-treatment follow-up 1-month have increased substantially. Subjects (2) at mindfulness variable during treatment and follow-up process have increased. As well as subjects, 3 testing the effectiveness of treatment, from base-line level as shown in the diagram, in follow-up trend has also been very low. These charts show that mindfulness-based cognitive behavior therapy have been influential in increasing mindfulness participants and has a lasting impact. To measure cognitive emotion regulation in patients with chronic depression.

According to data sets based on data obtained from Table 3, it concluded that MBCT will improve emotion regulation. The results presented suggest that the first, second and third scores at post-treatment relative fall in the area improved. Based on what can be seen from the table scores for all three subjects emotion regulation during the meetings dropped and this reduction continued until the end of meetings to follow-up meeting. It shows the effectiveness of the treatment of MBCT in emotion regulation and it can be based on recovery and the effect size obtained in cognitive emotion regulation scale with respect to the percentage improvement 54,53,50 effect size 0.87, 0.82, 0.85 concluded. Since high percent

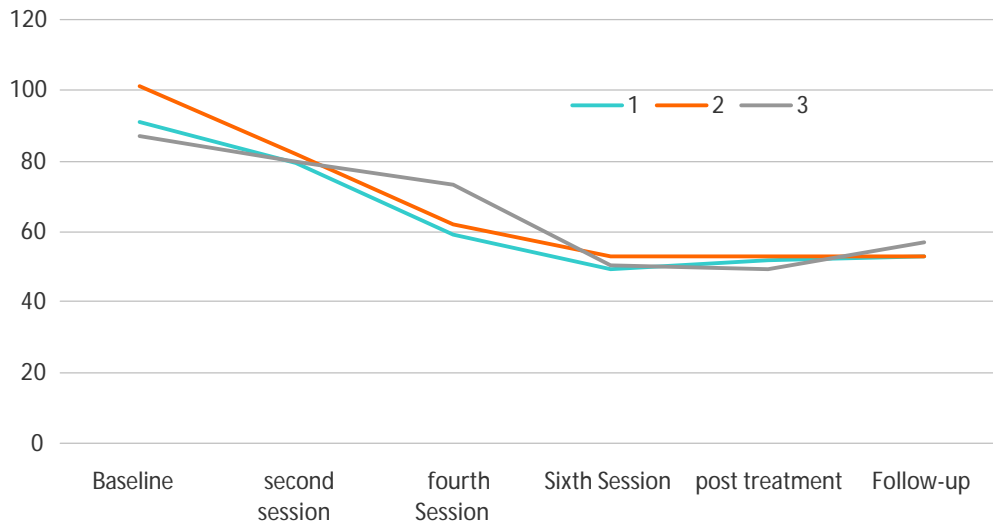


Fig. 2: Show the subjects change receiving MBCT in scale cognitive emotion regulation

improvement 50 and effect, size of 0.8 shows effectiveness of the treatment. So based on the percentage of recovery and the size of the effect of this scale can be concluded that MBCT treatment has good effectiveness.

Figure 2 show the subjects change receiving MBCT in scale cognitive emotion regulation. According to Chart 2 lower scores in all three subjects from the baseline to post-treatment session and even follow-up two months of treatment effectiveness is obvious. The changes in the first and second subject have absolutely decreased but in the third subjects at the follow-up has little increasing trends.

CONCLUSION

The aim of this study was to evaluate the effectiveness of mindfulness-based cognitive therapy in mindfulness, cognitive emotion regulation and reduce the symptoms of depression in patients with dysthymic. The three hypotheses based on the results of this research will be discussed as well as the consistent and inconsistent assumptions with the literature explain them talk. In the end, the overall conclusion that emerged from this research is offered. Mindfulness-based cognitive therapy is primarily to address the shortcomings treatments such as cognitive behavioral therapy. According to Teasdale and Segal, relapse is common after treatment of mood disorders.

According to data derived from research that is displayed in the fourth quarter, mindfulness-based cognitive-behavioral therapy significantly increased the scores is mindfulness. So, you can see, at the baseline, follow-up and post-treatment in three subjects, the scores

had an increasing rate and the percentage of recovery and the size of the effect, proves the effectiveness of the treatment.

In this regard, several studies have been conducted. The effectiveness of mindfulness-based cognitive-behavioral therapy has been shown in mindfulness, the efficiency of this therapy in the treatment of depressed patients in numerous studies has been demonstrated. So, be sure to efficient and cost-effective method of providing this intervention and least enough components to this that such intervention be effective be created.

MBCT has been able to reduce the negative mood of depressed patients and increase mindfulness, satisfaction and quality of life which will lead to the result obtained in this study, is quite consistent. As well as Davidson and Kalchos, quoted by McCracken, one study stated, mindfulness-based cognitive-behavioral therapy is the ability to reduce stress and improve sleep quality. Patients with persistent depression, usually has a wide range of mood and experience emotional protests. People more or less on one's mood if the depression is gone and one's sense of mastery continued to tolerate many suffer.

Each of the characteristics of patients with persistent depression (Distaymya) impatience and rumination is persistent. As you can see, mindfulness-based cognitive-behavioral therapy has been shown in various studies which can reduce stress and improve the lives of patients and rumination. So, Segal found that MBCT helps regulate negative thoughts and feelings, judgment and assessment than in the past to reduce and led to the decentralization of the mind. MBCT treatment and fundamentally changed the relationship between the

person and the thoughts and feelings in mind are considered as transient events and thorns in the sense of freedom, a strong entails getting rid of experience.

Mindfulness training on rumination emphasizes as a solution-focused strategy. This method is a step change in terms of processing is based on objective and causing inhibition is unnecessary in the context of detailed processing. So, these reasons, according to past research that demonstrates the effectiveness of this treatment in different patients, especially mood disorders and rumination of these patients, suggests that mindfulness increased in these patients and the logical conclusion has been made. According to the results of the fourth quarter Mindfulness-Based, Cognitive-behavioral Therapy (Table 2) (MBCT) emotion regulation in patients with persistent depression (Distaymya) improves the excitement of irregularities and indeed increase in emotion regulation and this problem can be reduced based on the scores of three students, indicators of recovery and the size of the effect on cognitive emotion regulation scale.

In many cases, changing methods such as verbal reconstruction focused on this type of remedial pathological features considered. That is why the theorists of this approach were looking for ways that by helping people to psychological distance in the process, accreditation to painful emotions, the flexibility of changing it through the reception area. Mindfulness also cause mental disorders in ignorance and dysregulation and caught in the trap of negative thinking. Mindfulness helps people to understand that negative emotions may occur but they are not part of the permanent character. Mindfulness people, inner and outer realities freely and without damaging perception and great ability in dealing with a wide range of emotions and experiences (both pleasant and unpleasant) to.

See the thoughts and emotions without trying to avoid or escape from them can be considered as an instance of exposure or desensitization which taps fear responses and behaviors will be automatically prove that by threatening stimuli have been strengthened.

The ability to handle negative emotions and the ability to cope with it is beneficial to follow. Mindfulness

has the potential to affect the emotional system, they look to have transformed life and the quality of their relationship with you, others and improve the world through adoption.

Because of the efficiency and effectiveness of mindfulness-based cognitive therapy in other countries, these study researchers were interested to examine its impact on patients within the country. For this purpose, three patients with persistent depression (Diss Taimya) were selected and Mindfulness-Based Cognitive Behavioral Therapy (MBCT).

The results confirmed the efficacy of this treatment. The reason for the effectiveness of MBCT treatment should be sought in nature. People with persistent depression to heart the availability of the information processing style schemas, memories and negative attitudes perpetuate created during the period of decline, accelerating the effectiveness of MBCT treatment. The present study is the first study of its kind has been made to evaluate the effectiveness of mindfulness-based cognitive-behavioral therapy on patients with persistent depressive disorder (Diss Taymya) is done. Therefore, this research has preliminary findings about the effectiveness of this treatment available to researchers and inspires further research in this field.

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