



# The effectiveness of mindfulness-based cognitive therapy on mental well-being of opioid-users

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## Original Article

### Abstract

**BACKGROUND:** Mindfulness-based cognitive therapy (MBCT) is one of the techniques for shaping behavior and procedure for changing non-adaptive beliefs by using cognitive-behavioral theory to treat addiction disorders. This study was conducted to determine the effectiveness of cognitive therapy based on mindfulness on mental well-being of opioid users.

**METHODS:** This pretest-posttest experimental study was conducted among drug users in Sanandaj city, Northwest of Iran, during 2016. To conduct the research, 20 participants were selected using available sampling method, and randomly divided into two equal groups of experimental and control. The experimental group received knowledge about cognitive therapy for 8 sessions of 90 minutes. We gathered the data of two study groups using Mental Well-being Questionnaire before and after intervention. Data analyses conducted using independent sample t test.

**RESULTS:** Mindfulness therapy had a significant effect on subjective well-being of opium users. So that, the mean scores of the variable of the overall index of mental well-being in the experimental group ( $177.90 \pm 20.14$ ) was significantly larger than the control group ( $141.30 \pm 19.16$ ) in the posttest with the control of the effect of the pretest ( $P < 0.001$ ).

**CONCLUSION:** Findings of the present study suggest that cognitive therapy based on mind-awareness strategies helps people to replace reasonable beliefs with irrational beliefs in order to achieve new insights that seek to communicate with others and improve subjective well-being.

**KEYWORDS:** Cognitive Therapy; Mindfulness; Mental Competency; Opioid-Related Disorders

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## Introduction

In terms of psychology, addiction or substance dependence, is considered a mental disorder. This word is defined as "substance abuse disorder" and is the second most common psychiatric disorder.<sup>1</sup>

So far, several therapies of psychoanalysis, behavioral therapy, group therapy, and drug therapy have been conducted on patients with addiction disorders, but each of these methods is somewhat effective and sometimes they cause

the addiction to return. It seems that the problem is deeper and something in a person's psyche places him in a state of re-use. Johnson et al.<sup>2</sup> found in the research that there was evidence of the relationship between beliefs of people with alcohol abuse disorder and medications. Meanwhile, cognitive behavioral therapies (CBTs) have received very high empirical support among psychosocial approaches evaluated in the field of substance abuse treatment. Mental awareness-based cognitive therapy is a term used for therapeutic approaches based on behavioral shaping techniques as well as procedures for changing inappropriate beliefs. This approach uses cognitive and behavioral theories to treat

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anomalies of addiction.<sup>3</sup>

In Kabat-Zinn and Nhat Hanh's view,<sup>4</sup> the purpose of conscious mindedness is not a changed state of consciousness, but a state of self-observation without evaluation and attention to the present reality.

The main goal of mindfulness-based cognitive therapy (MBCT) is to enable the patient to be aware of the effects of re-functioning of the mind through self-monitoring, the creation and utilization of the mind-state, and repeated exercises with directional intent. It is imperative to observe your thoughts and feelings or body feelings.<sup>5</sup>

In recent years, a group of mental health researchers has chosen a different theoretical and research approach to explain this concept. It considers mental health as a positive psychological function and conceptualize it in the context of the term "mental well-being". This group does not consider the disease to be sufficient for a sense of health, but it believes that having a sense of life satisfaction, satisfactory progress, effective interaction with the world, energy and positive mood of the graft, favorable relationship with the community, and the positive development are the characteristics of a healthy person. Today, there are new perspectives on the mental health and psychology. In this perspective, there are focus on people's mental health and psychological nature of well-being.<sup>6</sup>

The importance of the effectiveness of MBCT in the treatment of addiction is that the therapist helps the authorities to identify thoughts that provoke a positive attitude towards narcotic drugs and alter irrational thoughts and false beliefs. Treatment and prevention of recurrence of drug use, due to its mechanisms, such as acceptance, awareness increasing, desensitization, and fighting with drug reuse can reduce the consequences of quitting drug use and prevention of recurrence of drug use.<sup>7-9</sup>

Since the mindfulness approach has

recently been introduced in psychological research and in Iran, there are few psychiatric therapists trained in this field, the use of this approach is needed for preventing the recurrence of substance use and high rates of abusers in Iran.

Therefore, the main question of the present research is that what is the effect of MBCT on the subjective well-being of opium-dependent consumers?

## Materials and Methods

The present research was applied in a practical and semi-experimental, pretest and posttest type with control group. The statistical population of the study was the clients of the addiction treatment center of Sanandaj City, Iran, in the second half of 2016.

The inclusion criteria included minimum primary and upper secondary education, age range of 20 to 50 years, referral of a psychiatrist or doctor based on primary diagnosis of drug dependence according to Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V) diagnostic criteria, negative urine test for opioids, lack of physical and psychological problems, lack of cooperation in other therapeutic programs during the study, lack of long-term dependence on several substances at the same time apart from opiate, and having satisfaction for attending therapeutic sessions. The criterion for leaving the research was the absence of more than two sessions in the treatment sessions.

Twenty people were selected using available sampling method and randomly assigned to two experimental and control groups (each group of 10).

Before training, cognitive therapy based on mindfulness of both groups was tested by Emotion Regulation Questionnaire (ERQ). Subsequently, they were trained by a master in clinical psychology in this field, and the experimental group was subjected to

awareness-raising sessions for 8 sessions of 90 minutes each week. During this period, no intervention was performed on the control group (Table 1).

After completing the training sessions, the subjective well-being questionnaire was again applied to both groups. For data analysis, in addition to descriptive statistics including mean and standard deviation (SD), inferential statistics including independent t-test was used.

**Mental Well-being Questionnaire:** This scale has been developed and utilized by Keyes and Magyar-Moe.<sup>10</sup> The questionnaire has 45 questions and 3 subscales that are used to measure emotional, psychological, and social well-being.

A. The subscale of emotional well-being with 12 questions evaluates the positive and negative emotions of individuals during the past month. The first six questions are about positive emotions and the second six questions evaluate negative emotions during

the past month.

B. The subscale of psychological well-being has 18 questions and is based on the individuals' assessment of their personal life.

C. The subscale of social welfare has 15 questions and is based on the individuals' assessment of their social life and relationships with the community.

The validity of the questionnaire is obtained by:

Content-based validation: This type of validity,<sup>11</sup> is used to determine whether a test is basically a question of this kind of content, properly identified and evaluated by its content. In order to do narrative content, at first, a subjective well-being scale was given to 5 professors from the School of Psychology at Al-Zahra University, Tehran, Iran, for evaluation. They responded to the question of the extent to which this test is appropriate by a 5-point scale ranging from not appropriate at all (1) to very appropriate (5), the results of which indicate that mental judgments of Well-Being Questionnaire is high appropriate.

**Table 1. Summary of the contents of the sessions of mindfulness education**

Sessions	Subject	Description
First	Automatic guidance	Presence is the best way to get out of automated guidance, which gives us the knowledge of every moment.
Second	Dream with obstacles	Feelings of being unable to make progress or move forward in a situation until a problem has been dealt with.
Third	Conscious breathing	Is an umbrella term for medical and therapeutic methods that improve the breathing function. These methods involve directing awareness to breathing and developing habits that improve respiration.
Fourth	Being in the present	In the presence of the mind the aware and mindful of what is happening at this moment, one must look at the events from a different angle and have a wide and different view of them.
Fifth	Authorization/approval	A different connection means the permission to attend experiment, just as it is without judging it, or trying to make a change in what we are about to do.
Sixth	Thoughts are not truths	They are mental events that pop up in the mind and are dependent on our mood. Understanding that thoughts are just thought is even reasonable for anyone who does not believe it.
Seventh	Take care of yourself as best as possible	There is a possibility of treatment that can be practiced. As a first step, you can use breath-taking practice.
Eighth	Use what you have learned in life.	Regular school attendance helps maintain balance in life. Positive intentions are strengthened. Because these exercises are linked to positive reasons for self-care.

**Table 2. Statistical characteristics of subjects in subjective mental well-being in experimental and control groups**

Groups		Pretest	Posttest
		Mean $\pm$ SD	Mean $\pm$ SD
Mental well-being	Experimental	144.50 $\pm$ 23.04	177.90 $\pm$ 20.14
	Control	141.40 $\pm$ 23.88	141.30 $\pm$ 19.16

SD: Standard deviation

Differential validity (diagnostic): This validity was evaluated by implementing the short version of Beck Depression Inventory (BDI-21) and Subjective Mental Well-being Questionnaire on 57 subjects. The correlation coefficients of BDI with Subjective Well-being Questionnaire (-0.52) and its subscales included emotional well-being (-0.46), psychological well-being (-0.47), and social well-being (-0.43). The Mental Well-being Questionnaire had an acceptable reliability.

### Results

According to the results of the study, 20 opium-users participated in this research. Mean age of them was 31.2 years. In terms of education, most participants had middle school education. In table 2, the mean and SD of the pretest and posttest scores of subjects were separately presented for the experimental and control groups.

As the results of table 2 show, there was not a significant difference between the two groups in the pretest phase, but at the posttest stage, there was a big difference. Also, the mean in the control group was less variable than the experimental group by comparing the pretest and posttest means of mental well-being. It can be concluded that subjective well-being changed after mind-awareness training in posttest and the performance of individuals in the experimental group improved. Given the fact that the assumptions of the covariance test were not met in this hypothesis, the t-test was used to analyze the data. First, the difference between the posttest scores and the pretest scores was calculated and then the remainders were compared using the t-

test for independent groups.

T-test results to compare mental well-being in the two groups (testing and control) showed that there was a positive effect of cognitive therapy on mental well-being ( $P < 0.001$ ).

Considering that the mean of the experimental group was larger than the mean of the control group, it can be concluded that MBCT was effective in the increase of mental well-being.

### Discussion

The results of this study showed that MBCT was effective in preventing the return of opioid-dependent people. In other words, the rate of return in the case of those who received this training had a significant decrease compared to the control group. This finding indicates the effectiveness of this type of intervention in reducing the return and reduction of consumption in opiate-dependent people.

The results of this study are consistent with the findings of Tickell *et al.*<sup>12</sup>, Shareh *et al.*<sup>13</sup>, Jalali *et al.*<sup>14</sup>, Farnam *et al.*<sup>15</sup>, and Kazemian,<sup>16</sup> showing that learning a retrospective prophylactic model is effective in preventing rebounding addiction and increasing coping skills. Kazemian also emphasized on the effectiveness of focus on the mental health of addicts, which based on the results of this study, the use of MBCT method has significantly increased the mental health of drug addicts.

According to this hypothesis, in a research conducted by Kafi *et al.*,<sup>17</sup> the efficacy of knowledge-based cognitive therapy education in subjective well-being of women with irritable bowel syndrome (IBS) was investigated. The

findings showed that the mean scores of mental well-being in the experimental group decreased in posttest and follow-up. Also, in a study by Gallefoss *et al.*<sup>18</sup> in the United States (US), the results showed that mental health awareness of patients had a significant effect on the improvement of mental well-being of patients with asthma, which is consistent with the results of the present study.

Formation of specialized groups at the centers of drug addiction in the city for education and effective management in the treatment of addicts, including mental and emotional therapy, as well as the use of tests to measure the mental health of addicts treated with methadone in centers of addiction treatment can be very effective in the function of this type of treatment. The limitations of this study include the difficulty of understanding some of the questions, even for high-educated subjects, as well as the low level of education of some subjects, especially methadone users who responded to the questionnaire.

### Conclusion

Mental mindfulness-based strategies for cognitive therapy are one of the ways for regulating the excitement of individuals and today, they are one of the educational approaches in this area. The results of this study also showed that effectiveness of mindfulness-based cognitive therapy had a significant effect on the regulation of emotions in individuals and helps trained people to adjust their emotions and excitement. This approach can be used to train addicts as one of the most vulnerable groups in the community, especially in preventing the return of opioid-dependents. It is recommended that using the cognitive-based education method be considered as a strategy for policymakers in the field of drug prevention and treatment.

### Conflict of Interests

Authors have no conflict of interests.

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