

The Effectiveness of Cognitive-Behavioral Stress Management Training on Irrational Beliefs and Resiliency of Drug Addicts

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Abstract

Background: Numerous factors involve in the incidence of addiction including social, economic and psychological stress.

Objectives: The present study aimed at studying the effectiveness of cognitive-behavioral stress management on irrational beliefs and resilience of drug addicts.

Methods: In an experimental study, 20 addicts who were in the camp were randomly assigned into two groups of experimental (10 individuals) and control (10 individuals). The experimental group were being treated with cognitive-behavioral stress management for ten 90-minute sessions, and the control group did not receive any treatment. All participants in the study, at the beginning and the end of the treatment and two months after treatment filled out the irrational beliefs and resiliency questionnaire. Analysis of covariance and multivariate analysis of covariance (MANCOVA) was used to analyze the collected data.

Results: The findings of analysis of covariance between two groups in the post-test was significant in ten aspects of irrational beliefs including the need to recognize and protect others ($F = 4.09$), high expectations of themselves ($F = 16.84$), tend to blame ($F = 17.03$), reaction to frustration ($F = 11.88$), emotional irresponsibility ($F = 10.97$), excessive preoccupation ($F = 10.97$), avoiding the issues ($F = 8.48$), dependency ($F = 12.45$), despair to change ($F = 8.94$), and perfectionism ($F = 15.56$) in the one present level. In addition, the results of analysis of covariance of second hypothesis showed that resilience ($F = 22.61$) in the experimental group had a significant difference with the control group. Also, the obtained results were significant at the 0.01 level. Therefore, according to the above-mentioned finding, cognitive-behavioral stress management training is effective in reducing irrational beliefs and increasing the resilience of addicts.

Conclusion: According to the lower average scores of the experimental group in the post-test stage in the dimensions of irrational beliefs, it can be concluded that stress management training in a cognitive-behavioral way reduces the irrational beliefs of addicts. Also, according to the higher average scores of the experimental group in the post-test stage in resilience, it can be concluded that cognitive-behavioral stress management training is effective in increasing the resilience of addicts.

Keywords: Stress Management, Irrational Beliefs, Cognitive-Behavioral, Resilience, Drug Addicts

1. Background

Addiction is one of the most important problems of today's societies, which has spread globally, and every day the number of people dying by it has increased.¹ It actually causes significant economic, social and psychological costs for societies.² The American Psychiatric Association defines substance abuse as a pattern of maladaptive behaviour occurring over a 12-month period as a result of substance use that results in severe impairment or distress.³ Addiction is a chronic disease that is associated with challenges in the field of behavioural control, which leads to the destruction of personality in people. Drug-dependent people become physically and psychologically dependent on drugs, in such a way that they increase their consumption over time.⁴ This increase causes physical and mental problems and a sudden change in the socio-economic situation.⁵ During the last century, the prevention

and control of drugs have been seriously emphasized, and this action continues. The issue becomes more important when we know that Iran has a special geographical location, such as bordering Afghanistan and its western neighbours, as a channel for drugs to enter Europe. Many social, personality, hereditary, environmental and individual factors are effective in the occurrence of drug addiction.⁶ In justifying the causes of addiction, sociologists mostly refer to environmental, social and cultural factors such as: poverty, illiteracy, unemployment etc. In justifying the causes of addiction, biological scientists and physiologists pay more attention to physical and biological factors and receptors in the human brain. There are different views about the causes of mental disorders and their treatment methods in counselling and psychotherapy. One of these views of counselling and psychotherapy that has presented theories about most mental disorders and addiction is

Albert Ellis' rational-emotional theory. Ellis believes that resorting to illogical beliefs leads to anxiety and mental distress. He strongly emphasizes compulsion, obligation, and duty in his attitude and perceptions and binds himself infinitely to the reality of a particular matter. Therefore, if a person frees himself from these bonds, he will most likely move towards the health of the role and the development of the personality.⁷ Alice (1995) believes that many of people's discomforts and their irregular emotional lives are rooted in all kinds of irrational and unrealistic beliefs about themselves and the world around them. Accordingly, psychological problems are the result of people's misperceptions. This is actually because emotions are the product of cognition, and the many consequences that come from illogical thoughts are the basic causes of the most important emotional instability. Addiction is considered as one of the mental disorders in the classifications of mental disorders, and also psychological mechanisms used by addicted people are morbid and abnormal.⁸ Several studies have shown that the use of these mechanisms is not natural in addicted individuals, that is, an addicted person has more irrational beliefs.⁹ Studies show that logical and irrational beliefs affect a person's cognitive performance. The perception of people with logical beliefs is more effective and practical compared to people with illogical beliefs.¹⁰ One of the important factors in drug addiction is resilience. Resilience refers to the dynamic process of adapting to exhausting and debilitating stresses in people's lives.¹¹ Resilience leads to feeling less of the negative psychological load of experienced stress, and due to having that attribute, a person maintains his/her health in psychological and biological dimensions in stressful situations.¹² The main application of the issue of resilience in substance dependence is the primary prevention of addiction. Resilience skills in people increases their ability to maintain health and resistance in stressful situations. In such a way, resilient people use their abilities to achieve success and transformation despite the risk factors and evaluate challenges as an opportunity for growth.¹³ Resilience has dimensions including self-efficacy, adaptability, tenacity, problem-solving ability, goal directedness, distress tolerance, strong social support, hope and optimism.¹⁴ Resilience leads to feeling less of the negative psychological load from stress, through which a person can maintains his health in psychological and biological dimensions.¹⁵ Countless factors, including all kinds of social, economic and psychological stress, play a role in creating and developing addiction. Stress can have severe negative effects on people's health. Many studies have shown that drug abusers who suffer from psychological problems such as stress, anxiety and depression use substances to relieve painful emotional states. The lives of drug abusers are full of various stresses. These people may deal with

dozens of stress cases daily; what is important is the way they deal with them. Stress is not an absolutely negative phenomenon, because moderate tension is a part of a person's health and a motivational factor to adapt to new situations and conditions. But if stress is not contained, managed, and controlled, it will have adverse effects on people's physical health (physiological effects).¹⁶ It is obvious that stress has disrupted a person's performance in personal, social, psychological, physical and family realms and it will cause psychological changes such as increased irritability, anxiety, nervous tension, and an inability to control oneself and social and family relationships. There are different methods to deal with stress, including the model of Lazarus et al. Another stress management method is the model of McNamara, which was designed in (2005) to help teenagers. In this method, McNamara provides recommendations, information and psychological and physical techniques to deal with stress, study skills, time management, communication skills, dealing with depression and anxiety, and improving self-confidence.¹⁷ Findings have confirmed the relationship between resilience and stress. For example, in an experiment conducted by Freiburg et al. (2008), the findings showed that resilience is considered as a mediator of pain and stress, in such a way that people who scored high in resilience during the research reported less pain and stress.¹⁸ Resilience is also related to substance use and attitude towards it. Goldstein et al. conducted a research on the relationship between internal resilience with smoking, alcohol and depression symptoms in a number of teenagers. The aforementioned research findings showed that internal resilience was negatively correlated with smoking last year and nicotine dependence.¹⁹ The basic assumption of cognitive-behavioural treatments for addiction is that drug abuse is actually caused by various problems in a person's life and his inability to deal with them correctly. Therefore, effective interventions in the treatment of substance abuse, instead of focusing on the act of abuse alone, should be paid attention. Since the skill of coping with stress can be taught, cognitive-behavioural therapy emphasizes the assumption of social learning theory that addicted people need to learn adaptive skills and replace maladaptive methods of coping with stress and seeking pleasure.²⁰ Stress management techniques and relaxation exercises can help reduce the impact of stress by reducing a person's stress level. Cognitive-behavioural stress management aims to increase the sense of control, self-efficacy, self-esteem, effective coping and social support in a stressed person. These changes reduce negative moods and social isolation and improve the quality of life.²¹ A cognitive-behavioural stress management treatment program is a combination of relaxation techniques and cognitive-behavioural techniques. This program includes a combination of different types of relaxation, imagery and other anxiety

reduction techniques with other common cognitive-behavioural approaches, such as cognitive restructuring, effective coping training,²² and expressiveness and anger management training.²³ These techniques are all collected in a group program that includes 10 weekly topics. In this program, some temporary stressors in the patients' lives are discussed in order to apply these stress management techniques.²⁴ This research includes cognitive-behavioural stress management techniques along with a significant number of relaxation methods in the direction of helping substance-dependent people to show appropriate responses to stressors and promote resilience. According to the materials mentioned in this research, an attempt is made to answer whether teaching stress management skills to the addicted community will increase their resilience. In psychology, resilience is defined as a positive capacity of people having the ability to adapt to stress and disasters. Accordingly, resilience has been considered as a protective and resistant factor against future risk factors. In stressful situations, those who have higher resilience have better mental health than those who have lower resilience.²⁵ Stress management methods and relaxation exercises can help reduce the impact of stress and increase resilience by reducing individuals' stress levels. Stress management is based on a sense of control, self-efficacy, self-esteem, effective coping and social support increase in a stressed person. These changes reduce negative mood and social isolation and improve the quality of life. Therefore, if the intervention of stress management is effective on the substance dependence disorder and problems of these patients, it is possible to prevent the recurrence of these people and encourage them to continue the treatment. According to the investigations carried out so far in Iran, many studies have been conducted in the field of behavioural and psychological treatment methods in addition to drug treatment to prevent and control this disorder and improve the level of resilience of people dependent on substances. Countless factors, including all kinds of social, economic and psychological stress, play a role in the development and incidence of addiction. The studies conducted about stress emphasize the important point that the quality of behaviour is not only caused by stress, but what predicts the health of behaviour is the way a person evaluates stress and the methods of dealing with it.²⁶ Drug and alcohol abuse may occur when the demands of the situation are beyond the individual's ability to cope, and the use of alcohol and other substances is considered the only way to achieve desirable outcomes.²⁷ Therefore, the inability to face stressful factors and the belief that the consumption of alcohol and drugs will lead to favourable results are the basis of the development and turning to drug use.²⁸ A cognitive-behavioural stress management training program is a combination of relaxation techniques and cognitive-behavioural techniques. This program includes

a combination of various types of relaxation, imagery and other anxiety reduction techniques with common cognitive-behavioural approaches, such as cognitive restructuring, effective coping training,²² expression training and anger management.²⁰ These techniques are all gathered in a group program that includes 10 weekly topics. Also, in this program, some temporary stressors in the patients' lives in order to apply this technique have been described.²¹ The results of Amini and Bagherzadeh's (2019) study on drug addicts showed that stress management training using the Maikenbaum method has been able to reduce cravings and increase psychological empowerment and social skills.²⁹ Therefore, it can be used as an effective method for improving the condition of patients undergoing addiction treatment. In research on emergency medical workers, Froutan et al. (2018) concluded that stress management training can play an acceptable role in reducing the level of anxiety and increasing the resilience of emergency medical workers.²⁵ Furthermore, Sepehri Nasab and Sohrabi came to a conclusion that cognitive-behavioural stress management training using techniques such as relaxation, cognitive restructuring and anger management can lead to an increase in mental health and a reduction in the impulsivity of addicts, so its use is suggested as an effective treatment method.³⁰ In another study, Zarnaghash and Mehrabzadeh (2016) found that mindfulness-based stress reduction therapy can lead to an increase in the quality of life and resilience of amputees' spouses as an efficient treatment program.³¹ Jamdal et al. concluded that high resilience in people makes them maintain their psychological health in stressful and unfortunate situations. Kathleen Carroll et al. evaluated the effectiveness of cognitive behavioural therapy in 24 subjects in preventing the relapse of drug abuse and the consequences of a history of smoking, alcohol, marijuana, cocaine, or other drug abuse groups. The results showed that cognitive-behavioural therapy has reduced the tendency to use and withdrawal in the treated people. Karen Emmons et al. investigated the effectiveness of a smoking cessation program in preventing relapse, with an emphasis on cognitive and behavioural coping skills, on 14 smokers. The control group included 18 smokers who did not receive any training. The difference between the groups was significant. The quitting rate for 3 and 6 months after treatment was 56% and 37%, respectively

2. Objectives

The current study was conducted to investigate the effectiveness of cognitive-behavioural stress management on the irrational beliefs of drug addicts and the effectiveness of cognitive-behavioural stress management on the resilience of drug addicts.

3. Methods

The current research is semi-experimental, with a pre-test

and post-test design with a control group and a follow-up period. The statistical population of this research included all addicts who had referred to the Badroud camp located in Natanz city during the one-month period of attendance there. The inclusion criteria of this study included the age range between 20 and 40 years old, having DSM5 criteria, addiction based on DSM.tv.tr criteria, absence of symptoms of psychosis and severe psychiatric disorders and having at least a middle school education. and the exclusion criteria included being absent for more than three sessions during the course, simultaneous participation in other treatment programs and suffering from psychiatric disorders and severe physical diseases that prevent participation in treatment sessions, as well as having just registered in camps and started the one-month camp period. Those who met these criteria were identified and were provided with the perceived stress, irrational beliefs and resilience questionnaires. From the results of the questionnaires, 20 individuals were selected who scored higher than others in the questionnaires of perceived stress and irrational beliefs and scored lower than others in the resilience questionnaire. In addition, ten individuals were randomly assigned to the experimental and control groups.

3.1. Instruments

3.1.1. Jones Irrational Thinking Questionnaire (IBT)

This questionnaire was created by Jones (IBT) in 1968 in order to measure irrational thoughts. Most of the research conducted in the field of illogical ideas and beliefs has used this test. Woods' research report in 1992 indicates that this tool has been used in 81 articles and 25 doctoral theses until spring 2012. This test consists of 100 questions and 10 scales, each measuring one of the irrational beliefs. In a research for the standardization of IBT, Donapoush used two methods of face validity and convergent validity to check the validity of this test. To check the convergent validity, the correlation between the IBT test and the Beck depression test was measured, and its coefficient was calculated as 82%. The face validity of this test was also confirmed by experts in psychology and educational sciences.³² The average reliability of all subscales measured by Trexler and Karst was 74%. Jones also reported the reliability coefficient of this test using the retest method as 88% and 92%, respectively, and the subscales as 45% to 95% and 66% to 86%. Taghipour has

also reported the reliability of this test to be 71% using Cronbach's alpha. Baba Safari (2008), Salmanian (1994) and Soudani (1996) also reported the reliability of this test to be 70% using Cronbach's alpha.³³

3.1.2. Connor and Davidson Resilience Questionnaire

This questionnaire has 25 items that are scored on a Likert scale between 1 (completely incorrect) and 5 (always correct). The factor analysis method was used. The calculation of the coefficient of each item with the total score showed that, except for item 3, the coefficients were between 0.41 and 0.64. In the next step, the items of the scale were subjected to factor analysis using the principal component's method. To determine the number of factors, using the slope of the scree chart and an eigenvalue higher than one, one factor was extracted from the scale. In his research, using Cronbach's alpha, Mohammadi (2005) obtained a reliability coefficient of 89% for this questionnaire.

3.1.3. Perceived Stress Scale

This scale was created by Cohen, Kamrak and Mermelstein in 1983. It includes 14 items. The scoring of this questionnaire is Likert and the range of individual scores fluctuates between 0 and 56. Comprehension of sentences is simple, and the answer options are also easy to understand. Its validity and reliability have been reported using Cronbach's alpha coefficient in the range of 74% to 93%.

3.1.4. Stress Management Training Package

The educational package includes a summary of the content of ten sessions. This treatment program was developed by Anthony et al. (2007). Each session includes psycho-educational information about stress management techniques and the basic guidelines of relaxation training. In the educational package, the forms and sheets were designed to complete the activities within a session to increase participants' awareness of the fine stressors of stress response and also practice stress management techniques in the sample of stressors. In addition to the intra-session activities, each session also includes household duty, which helps people use new techniques learned in events and stressful situations of daily life. The five steps of stress management techniques used in this program were cognitive restructuring, training

Table 1. Outline of Stress Management

First Session	Introducing the stress program, stressor and the stress responses, slow muscle relaxation for 16 group of muscles
Second Session	Gradual muscle relaxation for eight group of muscles, stress and awareness
Third Session	Breathing, imagination, slow muscle relaxation for four group of muscles, communication of thoughts and emotions
Fourth Session	Progressive passive muscle relaxation, negative thinking and cognitive distortions
Fifth Session	Autogenic training for heaviness and warmth in the body/practice replacing logical thoughts with irrational ones
Sixth Session	Autogenic training for heart rate, breathing, belly and forehead, effective coping
Seventh Session	Autogenic training together with imagery and self-induction, effective coping responses
Eighth Session	Mantra meditation, anger management
Ninth Session	Breath counting meditation/expression training
Tenth Session	Imagination and meditation, social support and review

Table 2. The Mean and Standard Deviation of the Scores of the Components of Irrational Beliefs in the Three Stages of Measurement According to the Experimental and Control Groups

Variable	Group	Stage	Number	Average	Standard Deviation
Necessity of approval and support of others	Control	Pre-test	10	28.14	3.48
		Post-test	10	27.56	4.72
	Case	Follow-up	10	27.10	4.32
		Pre-test	10	27.18	3.86
		Post-test	10	19.34	5.03
High expectation of self	Control	Follow-up	10	21.26	4.12
		Pre-test	10	31.17	3.69
	case	Post-test	10	30.56	6.34
		Follow-up	10	31.44	4.14
		Pre-test	10	30.35	6.22
Tendency to blame	Control	Post-test	10	23.27	5.11
		Follow-up	10	26.42	5.63
	Case	Pre-test	10	29.25	5.14
		Post-test	10	28.46	4.36
		Follow-up	10	30.02	5.76
Reaction to helplessness	Control	Pre-test	10	30.23	5.94
		Post-test	10	25.18	4.12
	case	Follow-up	10	26.12	5.19
		Pre-test	10	35.29	6.10
		Post-test	10	28.89	3.11
Emotional irresponsibility	Control	Follow-up	10	30.09	6.93
		Pre-test	10	29.41	4.65
	Case	Post-test	10	24.62	6.97
		Follow-up	10	26.33	3.25
		Pre-test	10	30.25	4.79
Excessive obsession	Control	Post-test	10	30.36	5.18
		Follow-up	10	28.94	5.35
	Case	Pre-test	10	29.90	4.10
		Post-test	10	23.52	4.23
		Follow-up	10	25.19	5.17
Avoidance of problems	Control	Pre-test	10	32.62	4.98
		Post-test	10	33.24	3.62
	Case	Follow-up	10	31.85	6.12
		Pre-test	10	32.72	3.81
		Post-test	10	27.24	6.53
Dependency	Control	Follow-up	10	28.01	4.29
		Pre-test	10	31.25	4.47
	Case	Post-test	10	32.36	3.29
		Follow-up	10	30.44	4.48
		Pre-test	10	34.41	4.62
Frustration with change	Control	Post-test	10	28.36	3.25
		Follow-up	10	30.25	3.78
	Case	Pre-test	10	28.11	5.47
		Post-test	10	29.36	4.39
		Follow-up	10	28.63	4.71
Perfectionism	Control	Pre-test	10	32.41	6.19
		Post-test	10	26.12	4.27
	Case	Follow-up	10	26.37	5.28
		Pre-test	10	30.04	5.77
		Post-test	10	30.36	4.64
Perfectionism	Control	Follow-up	10	28.89	4.81
		Pre-test	10	28.91	5.29
	Case	Post-test	10	24.35	4.57
		Follow-up	10	25.27	5.06
		Pre-test	10	27.34	4.39
Perfectionism	Control	Post-test	10	25.68	3.26
		Follow-up	10	26.19	3.41
	Case	Pre-test	10	29.66	5.40
		Post-test	10	25.29	4.13
		Follow-up	10	25.71	5.24

and coping with advocacy training, anger management and social support. To train each of these techniques, one to three sessions are considered. The Cronbach's alpha was considered as 87%.

3.1.5. Statistical Analysis

In the present study, descriptive statistics and inferential statistics were used for data analysis. The statistical indicators used are frequency tables, percentages, mean, standard deviation, and plots of graphs to be more objective. The statistical method is multivariate analysis of covariance and the t-test

4. Results

Cognitive-behavioural stress management training has an effect on reducing the irrational beliefs of drug addicts. In order to investigate the effectiveness of cognitive-behavioural stress management training on reducing the irrational beliefs of drug addicts, multivariate analysis of covariance (MANCOVA) was used.

In Table 2, the descriptive statistics related to the mean and standard deviation of the scores of the variable components of irrational beliefs have been separately for the experimental and control groups in three stages of

measurement (pre-test, post-test and follow-up). As it can be seen, the mean scores of the experimental group in the post-test and follow-up phases have decreased compared to the control group in ten dimensions of irrational beliefs, including necessity of approval and support of others, high expectation of self, tendency to blame, reaction to helplessness, emotional irresponsibility, excessive obsession, avoidance of problems, dependency, frustration with change, and perfectionism. That is, cognitive-behavioral stress management has been effective in reducing the irrational beliefs of addicts in ten dimensions. Also, the results obtained in Table 2 are significant at the level of 0.01. ($P = 0.01$).

Table 3 shows the mean and standard deviation of resilience scores in the experimental and control groups based on the three measurement stages. The pre-test, post-test and follow-up are shown. As it can be seen, the average scores of the experimental group have increased in the post-test and follow-up stages compared to the scores of the control group. That is, the cognitive-behavioural stress management program has been effective in increasing the resilience of addicts. Also, the results obtained in Table 3 are significant at the level of 0.01. ($P = 0.01$).

Table 3. Average and Standard Deviation of Resilience Scores in Three Stages of Measurement According to Experimental and Control Groups

	Group	Number	Average	Standard Deviation
Pre-test Resilience	Control	10	36.72	2.85
	Test	10	37.54	3.58
Post-test Resilience	Control	10	38.11	3.01
	Test	10	58.24	3.11
Track Resilience	Control	10	37.45	2.93
	Test	10	52.18	3.24

5. Discussion

Drug addiction is considered one of the social harms and a health threat of the current century.³⁴ The results of this research showed a statistically significant difference between the control and experimental groups, so that the cognitive-behavioral stress management program had an effect on the irrational thoughts of addicts. Similarly, Sepehri Nasab and Sohrabi (2016) in his research on 20 addicts concluded that cognitive-behavioural stress management training using techniques such as relaxation, cognitive restructuring, and anger management can lead to an increase in mental health and a reduction in impulsivity of addicts, so its use is suggested as an effective treatment method.³⁰ The results of Amini and Bagherzadeh's (2019) study on drug addicts showed that stress management training using the Maikenbaum method has been able to reduce cravings and increase psychological empowerment and social skills.²⁹ Therefore, it can be used as an effective method for improving the condition of patients undergoing addiction treatment. Another result of this research was that stress management training in a cognitive-behavioural way is effective on the resilience of addicts. Findings have confirmed the

relationship between resilience and stress. For example, in an experiment conducted by Friburg et al., the findings showed that resilience is considered as a mediator of pain and stress, in such a way that people who scored high in resilience during the research reported less pain and stress.¹⁸ In a research on emergency medical workers, Froutan et al. concluded that stress management training can play an acceptable role in reducing the level of anxiety and increasing the resilience of emergency medical workers.²⁵ In another study, Zarnaghash and Mehrabizadeh found that mindfulness-based stress reduction therapy can lead to an increase in the quality of life and resilience of amputees' spouses as an efficient treatment program.³¹ Today, the method of treatment and behavior modification that is recommended for addicts is problem-solving bases training methods so that they can learn more effective methods instead of their previous method which is drug use and replace stereotypical reactions (drug use). The first advantage of cognitive-behavioral stress management treatment is that the patient adopts life that includes a greater ability to adapt to events that a person cannot change. The second advantage is creating a positive change in self-concept, so

that a person sees herself more able to manage stress and believes that she can react appropriately. In general, people find out what the problems were by using different stress management techniques and learn ways to deal with these problems. That is, with the help of this intervention, people can benefit more from their abilities and capacities and become more resistant to the stresses of life, which ultimately leads to an increase in their resilience. Considering the limitations of the research that the participants of this research were only male addicted patients living in Natanz camp, it is suggested that this research be conducted on female patients and different population groups of addicted people. According to the demographic characteristics of the subjects based on the average age, the number of years of addiction and their education, it is appropriate for the education authorities to have extensive training programs with an emphasis on cognitive-behavioral therapy and coping skills training for different ages in order to control stressors and inefficient ideas and attitudes and increasing self-confidence as well as raising the level of resilience of people in the society. Also, this method can be used as a selective method in the psychotherapy process of addicts.

6. Conclusion

The effectiveness of cognitive-behavioural stress management interventions in reducing the irrational beliefs of drug addicts can be explained by the fact that drug addicts are highly vulnerable to stress and are ready to misinterpret the physiological symptoms of stress. Also, incorrect behavioural patterns and cognitive misperceptions are risk factors for inappropriate use of substances as a relaxing method. The change in these dimensions is probably a direct result of cognitive restructuring and coping skills training, which creates more adaptive cognitive coping strategies. To be in this research, an attempt was made to strengthen people's coping methods as internal resources and replace effective thoughts by teaching different methods of challenging negative self-thoughts and fighting irrational thoughts. The results of the covariance analysis showed that stress management training in a cognitive-behavioural way will increase the resilience of drug addicts. The significance of the difference between the scores of the experimental and control groups in drug addicts can be explained by the fact that drug addicts have a sense of control due to having negative thoughts about their situation. They have less tolerance in their life affairs and withdrawal symptoms, including physical pain. In the therapy sessions, it was emphasized that they can increase their tolerance for the problems of daily life by identifying the motivating factors. According to the results of this research, cognitive-behavioural stress management interventions can be used as a selective psychotherapy method to reduce irrational beliefs and increase the resilience of

addicts. It is hoped that the results of this research will help the relevant experts give more importance to the psychological aspects of substance abuse.

Research Highlights

What Is Already Known?

- The perception of people with logical beliefs is more effective and practical compared to people with irrational beliefs.
- The main application of the issue of resilience in substance dependence is the primary prevention of addiction.
- Stress management methods and relaxation exercises can help reduce the impact of stress and increase resilience by reducing the individual's stress level.

What Does This Study Add?

- Cognitive-behavioural stress management training has an effect on reducing the irrational beliefs of drug addicts.
- Cognitive-behavioural stress management training has an effect on increasing the resilience of drug addicts.

Author Contributions

HT designed the study and collaborated with the data collection. They also conducted the statistical analysis, interpreted the results and wrote the manuscript. FH and AB collaborated with the data collection. All the authors approved the final revision of the manuscript for submission.

Conflict of Interest Disclosures

All authors declared that they have no conflict of interest.

Ethical Approval

The study was approved by Allameh Tabatabai University Ethics Committee. Permission was sought from respondents and other bodies that mattered in the study and all other ethical protocols were duly followed right from the start of the study to the data collection process.

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