## **Abstract**

Objective: The current research was conducted to examine the effectiveness of stress coping skills training in the mental health of the addicts who referred to addiction treatment centers. Method: research employed a quasiexperimental research design with pretest and post-test. The statistical population of this study consisted of all clients in addiction treatment clinics who had registered for methadone treatment in 2014. The number of 30 participants was selected by convenience sampling method and divided into experimental and control groups. The experimental group participated in 8 sessions of stress coping skills training and, then, the mental health of both groups was examined General by Health Questionnaire. Results: The results showed that stress coping skills training has been effective in addicts' mental health. Conclusion: Stress coping skills training can be effective in reducing the harmful effects of addiction on mental health.

**Keywords:** stress coping, mental health, addiction

# Effectiveness of Stress Coping Skills Training in Mental Health of Addicts in Addiction Treatment Centers

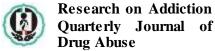
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## Introduction

Currently, substance abuse and its unpleasant consequences are one of the most important public health problems around the world (Daley, & Marlatt, 2005). Addiction is a chronic and recurrent disease of the brain that is characterized by the search and compulsory consumption of the substance despite its harmful effects (Tarimian, 2014). According to the World Health Organization's annual report, Iran has the highest prevalence of addiction (2.8%). After Iran, Kazakhstan is ranked (2.3%) and Russia is ranked second and third (2.1%) (Atashin, 2001). The World Health Organization (WHO) reported that in 2000, drug addiction was the factor for nearly 200,000 deaths (Saniotis, 2010) and is one of the most important threats to security and social welfare. The studies show that addicts and drug abusers have paranoid thoughts, depression symptom, anxiety, obsessive behavior, low self-confidence and phobia and have adverse effect on mental health (Serajkhorami and Isfahaniasl, 2008, quoted from Erfani and Zare Bahramabadi and Mashayekhipour, 2013). Also, in impulsivity, they achieve high scores (Zahed and Vahidi, 2012).

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There are a number of factors including a variety of economic and psychological stresses in the context of the development and occurrence of addiction (Thoits, 1986). The pattern of coping with stress in volunteer addicts is different from the pattern of non-addicts (Samui, Ebrahimi, Mousavi, Hasanzadeh, and Rafiee, 2000). Psychological pressures (Fallahzadeh and Hosseini, 2006) are among the most important causes of addiction relapse. Substance abuse and alcohol may occur when situational demands go beyond individual coping ability (Abrams, & Niaura, 1987). Research has shown that people who can not inhibit their stimuli are more likely to be consuming substances permanently (Doran, McChargue, & Cohen, 2007). In other words, addiction is an unhealthy emotion –oriented coping (Taromian, 2014). Persons involved in substance abuse behaviors have difficulty in dealing with emotional information, correct perception, proper processing, and the proper management of emotions in interpersonal relationships. These difficulties cause that a person, in dealing with stressful situations in life, can lose the ability to analyze, decide and choose the right behavior is directed toward uncompromising behaviors (Akbari Zardkhaneh, Rostami and Zarean, 2008).

There are different treatments for drug dependence treatment. Currently, the emphasis is on maintenance treatments. The review of previous studies showed that the effectiveness of drug maintenance therapy without social psychosocial interventions, because of the merely pharmacological emphasis has not been successful. (Dabbaghi, Asgharnejad, Atif Waheed and Bolhari 2008). The use of drugs in adolescents and young people is increasing considerably, and in order to control this, it is necessary to take advantage of new achievements in

prevention and treatment programs (Huang, 2006; Isralowitza, & Rawson, 2006). The researchers found that not only, the cognitive-behavioral approach was helpful in solving the addiction problems and helplessness, and it could be used to treat addiction (Nicke, 2006; Fierro, 2009) and the treatment of associated psychiatric disorders (Seghallaslam, Rezaei And Aghighi, 2003), but it has the highest effect compared to other therapy methods (Firou, 2009). Many studies have shown the impact of cognitive-behavioral group therapy on mental health of addicts (Kennedy, Gross, Whitfield, Drexler, & Kiltsa, 2012; Erfani et al., 2013; Kmrzryn, Zare and Brooke Milan, 2012; Aria Sadr, Akbarzadeh and Yazdi, 2010; Malazadeh and Ashoori, 2009; Tabaraghi et al., 2008). One of the topics discussed in cognitive-behavioral therapy is life skills training, including stress coping skills. Researchers have confirmed the positive impact of life skills training on reducing drug use, increasing awareness of drug use and enhancing interpersonal and communication skills. The profile of stress situations of Lamon, & Alonzo (1997) indicates that stress may be the cause of addiction or its outcome. In any case, stress management techniques should be important components of the rehabilitation program of addiction (Aria Sadr et al., 2010). Having coping skills and effective resources reduce the negative effects of psychosocial stress on social structure and relapse (Castellani, Wedgeworth, Wootton, & Rugle, 1998). Also, strengthening the communication and adaptive skills of a person is a way of accepting, receiving and protecting the positive and protective effects of ordinary friends and not substance abuser (Rasuli, 2011).

Coping strategies are effective variables on mental health. Various researches identify the relationship between different types of coping strategies and psychological problems and have considered the application of some of coping strategies on improving mental and physical health, reduced negative effects of stress and psychological welfare. (Dempsey, 2002). Mental comfort and coherent mental, psychological and practical actions are effective in reducing the tendency toward risky behaviors (Pierre and Pirani, 2012). Since mental health plays an important role in the etiology and treatment process of the addicted person and the presence of psychiatric disorders leads to resistance in treatment and the patient's addiction relapse (Prince et al., 2007); and given the fact that promotion of mental health can be considered as the most effective methods for community health and prevention of problems, In this study, the effect of training stress coping skills on mental health of addicts was investigated.

## Method

## Statistical population, sample and sampling method

This research employed a quasi-experimental research design and pre-test and post-test with control group. The statistical population of this study consisted of all clients in addiction treatment clinics who had registered for methadone treatment in 2015 in Rasht. The number of 30 participants was selected by convenience sampling method among the clients who wanted to participate in

the study. The participants of two groups are compared in terms of some variables such as age, education, marital status, occupation, type of consumed material and randomly divided into two groups of experimental and control (each one 15 people). Inclusion criteria included: at least guidance school degree, at least 20 years of age, psychiatrist's approval regarding the lack of severe mental disorder. The exclusion criteria included: Absence of more than 2 sessions, lack of cooperation and negligence of doing the tasks. The only used drug for both groups was methadone.

## **Procedure**

After obtaining written consent, mental health of two groups was measured by General Health Questionnaire (GHQ). After the experimental group conducted a group counseling session on stress management (8 sessions), posttest was performed on two groups. In this research, Sarah McNamara's educational method was used for stress management and a number of sources were added (such as Life Skills Book of Nasrin Emami Naini and life skills book of Hussein Naseri). The curriculum was presented by an expert with master's degree in psychology with the experience of holding a workshop on coping skills and addiction treatments. For the experimental group, 8 sessions of 60 minutes were held for 4 weeks (two sessions per week). At the beginning of the sessions, the previous session and task review were discussed. At the end of each session, new items were summarized and the relevant tasks were presented. The training program of sessions is presented in Table 1.

**Table 1: Actions Performed by Sessions** 

Sessions	Content
	The introduction of the importance and necessity of training stress management
First	skills, provision of a definition of stress and addressing differences in the face
	of stress and the cause of differences.
Second	The introduction of the general effects of stress on various mechanisms of the
	body, the study of physical, psychological and behavioral stress.
	The introduction of problem-oriented and emotional methods as coping
Third	methods, introduction of short-termand long-termmethods as coping strategies,
	introducing healthy and unhealthy ways as coping methods
Fourth	Assessment of coping strategies of individuals in stressful situations, mental
	and rational strategies for coping with stress
	The introduction of the steps of coping with stress, awareness of one's feelings,
Fifth	knowledge of the current situation and its acceptance/identifying its negative
	and positive features, identifying negative and positive thoughts and
	neutralizing them.
Sixth	Stress relief, introduction of relaxation techniques as a therapeutic approach,
	other methods of deep breathing, distraction methods
Seventh	Physical methods of coping with stress to have a healthy lifestyle: healthy
	nutrition, enough sleep and exercise, etc. and how to be prepared to encounter
	stressful situations.
<b>Eights</b>	Use of trained skills and correction of the mistakes of clients in using them/
	reviewing patient views and gaining feedback and re-examining general health.

#### Instrument

General Health Questionnaire: Henderson believes that this questionnaire is the most widely used screening instrument for identifying people with a diagnosis of mental illness (Otadi, 2001). A high score indicates disease and a low score indicates general health (Kaviani, Mousavi and the Mohit, 2001). It has four subscales of physical symptoms, anxiety, social malfunction and depression. The scoring is based on a Likert scale from zero to three. In each subscale, the score above 6 and the total score above 22 indicate the psychosis symptoms (Goldberg & Hillier, 1979). In Taqavi (2001), the reliability coefficient of questionnaire is reported with three methods of test ret-test, split-half and Cronbach's alpha is 0.70, 0.93, and 0.90, respectively, and evaluated concurrent validity through the simultaneous implementation of the Middlesex Hospital Questionnaire and the correlation coefficient was 0.55. The correlation coefficients between the scores of the questionnaire range between 0.72 and 0.87.

## **Results**

The average age of participants is  $30.93 \pm 6.35$  years (age range from 22 to 48 years). The descriptive statistics of the research variables are presented in Table 2.

Table 2: Descriptive Statistics of Mental Health Components by Groups and Type of

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Variables	Groups	N	Pre-test		Post-test	
			Mean	SD	Mean	SD
Mental	Experiment	15	50.07	7.92	23.20	7.58
health	Control	15	49.40	6.49	50.27	4.28
Physical	Experiment	15	13.20	3.34	3.80	3.05
symptoms	Control	15	11.93	2.69	12.47	2.29
Social	Experiment	15	10.73	1.75	3.40	2.77
function	Control	15	11.80	2.48	10.13	1.55
Depression	Experiment	15	13.20	14.25	3.07	3.99
	Control	15	13.80	2.57	15.80	1.57
Stress	Experiment	15	12.93	1.94	3.40	2.10
	Control	15	11.87	1.92	13.93	2.54

To investigate the effectiveness of training stress coping skills on the mental health of addicts under methadone treatment, should use multivariate covariance analysis. One of the assumptions of this analysis is homogeneity of regression slope and homogeneity of error variances. The test results of these assumptions are presented in Table 3.

Table 3: Results of Leven's test for Homogeneity of Error Variances and Homogeneity of Regression Slope

Variables	Leven's t	est results	Regression slope		
variables	F statistics	Significance	F statistics	Significance	
General health	0.44	0.512	3.31	0.080	
Physical symptoms	0.37	0.551	0.37	0.693	
Social function	0.01	0.911	2.16	0.139	
Depression	0.03	0.864	0.24	0.790	
Stress	0.63	0.433	0.01	0.993	

As shown in Table 3, homogeneity of regression slope and homogeneity of error variances in all variables are observed (P >0.05). Also, the results of the box test showed that the homogeneity hypothesis of variance-covariance matrices is established (F=1.98, P>0.05). Therefore, multivariate covariance analysis was performed and the results indicate a significant difference of two groups (effect size=0.937, P<0.001, F=78.560, Wilks Lambda =0.06).

To investigate the difference patterns, uni-variate covariance analysis was used as the following Table.

Table 4: Univariate Covariance Analysis Results to Examine Patterns of Difference in Mental Health Subscales

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Variables	Mean of squares	F statistics	Significance	Effect size			
Physical performance	474.95	68.02	0.0005	0.739			
Social function	267.94	101.14	0.0005	0.808			
Depression	866.54	207.12	0.0005	0.896			
Stress	700.23	127.96	0.0005	0.842			

As shown in Table 4, stress coping skills training has been able to reduce scores in all components. In other words, mental health has improved.

## **Discussion and Conclusion**

The purpose of this study was to investigate the effectiveness of stress coping skills training in the mental health of the addicts who presented to addiction treatment centers. Regarding the findings, we found that stress coping skills training was effective on the mental health of addicts. In fact, in mental health scores and its sub-scales in the experimental group, there was a significant decrease in the stress coping skills training. The findings of the present study are consistent with the findings of Nick (2006), Firo (2009), Kennedy et al. (2012), Erfani et al. (2013), Kamarzarin et al. (2012), Aria Sadr et al (2010), Mollazade and Ashoori (2009); Dabbaghi et al. (2008). Kennedy et al. (2012) found that cognitive therapy is effective in the mental health of drug addicts. Shoa Kazemi and Momeni Javid (2012) during a research on glass user women, found that psychiatric interventions have been effective on their mental health and have reduced depression and their physical symptoms. Mollazadeh and Ashoori (2009) in a survey on addicts showed that cognitive therapy group improved mental health in addicts. Cognitive-behavioral therapy has a significant effect on

increasing self-efficacy, improving addiction symptoms and reducing the dose of drug dependent patients. Erfani et al. (2013) in a research on the efficacy of self-acceptance therapy group on the general health component of drug addicts in addiction treatment centers showed that self-acceptance therapy group is effective in reducing the symptoms of anxiety and depression among addicts, and changing unhealthy beliefs to healthy ones leads to increase the health of addicts. In another study by Hendriks, Scheea, & Blankena

(2011), cognitive behavior therapy not only helps in drug abuse and reduces delinquency, but also increases the mental health of these people. In other groups (non-addicts), researchers also demonstrated the effect of stress management training on mental health (e.g. Mousavi Nasab and Taghavi, 2007). Unger,& Kipk (1998) considered the problem-solving skills to control stress and physical and mental health. Akbari Zardkaneh et al. (2008) found that there is a negative and positive relationship between the developed and undeveloped defense mechanisms and addition acceptance.

Lazarus believes that a person faces two sources of stress in confronting a major event or severe stress: first, a stressful position that may endanger individual life and health and reduce individual care, and secondly a person's response to this situation may be as threatening as possible and also reduce his ability to solve the problem (Thoits, 1986). The findings of this study indicate that training people in the field of correct coping with the source of stress can reduce psychological stress and increase problem solving as a result of improving the psychological status. The more resources people have to deal with, the less likely they are to be in situations where they are vulnerable. Resilient individuals experience fewer symptoms of depression, anxiety, and stress (Mohammadi, Aghajani and Zahtabvar, 2011). The relationship between people's resilience and mental health has been confirmed in numerous studies (Tugade, & Fredrickson, 2004; Inzlicht, Aronson, Good, & McKay, 2006). Addicts are incapable of using effective and efficient defense mechanisms in stressful situations, and they lead to destructive behaviors such as drug use. The incidence of mental disorders is also high in these individuals (Nickel, & Egle, 2006). Since substance abuse is an undeveloped defensive mechanism to which individuals with low emotional intelligence resort in difficult situations (Akbari Zardkaneh et al., 2008), training healthy coping skills to drug-dependent individuals has a positive impact on their psychological health. In other words, this approach presents cognitive strategies and behavioral exercises such as knowledge of stressful situations of life, the recognition of physical and mental symptoms of stress, identification of coping methods that have been used to deal with drugs and replacing healthy stress relief methods (e.g. Relaxation, seeking supportive resources, deep breathing, challenging inefficient thoughts), improved unsatisfactory coping strategies (such as drug use), improved mental health in these individuals. Undoubtedly, the continuation of positive outcomes in teaching stress coping skills requires their continued use in everyday life. The

findings of this study not only show the need to train stress coping skills in addicts, but also indicate the need to provide this training in adolescents to prevent addiction.

Some of the limitations of the present study is a small sample size and the selection of participants from clients of the addiction treatment center (methadone treatment) and lack of follow-up. Also, because of the lack of female referral to the methadone treatment center, this was a one-gender study. So in the future research, we can

Implement the stress coping skills training on women and other therapy groups such as volunteer unknown groups and camps and we can use the follow up stage to evaluate the continuation of intervention on mental health.

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