

## The Effect of Teaching techniques of distraction on the willingness of drug use (craving) and self-efficacy in women addicted to drugs and stimulants

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**Abstract:** The aim of this study was to evaluate and compare the effectiveness of distraction techniques on self-efficacy and willingness to use drugs (craving) in women addicted to drugs and substance. The statistical population of the study is all women undergoing conservative treatment that referred to center for addiction treatment of doctor Jafari in the six months of 2015-2014 that after informing and obtaining consent from individuals to engage in research, 30 people were randomly selected among them and were in two groups of 15 participants for testing and controlling. Then, in 8 weekly group sessions of 45 minutes, the experimental group participated in the treatment group with the aim to teach distraction techniques. The instrument used in this study was a 17-item questionnaire of Scherrer and 14-item questionnaire of Haynes and colleagues at the pre-test and post-test. The main findings there is a significant difference between the mean scores of self-efficacy posttest in the experimental group ( $p < 0/001$ ) but obtained from covariance showed no significant difference between the mean scores of craving posttest in the experimental group.

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**Key words:** distraction techniques, craving, addiction, self-efficacy

### 1. Introduction

Craving (lust) is one of the main aspects of psychological dependence on opiates and any other addictive substances (Ilgen and Kleinberg, 2011). More research in the field of addiction treatment has used a medical or psychological maintenance therapy to prevent the return of the materials. Kasvikis, Bradlai, Morks, Gray, 1991, showed that the highest rate of return is in a few months after detoxification. In addition, they have shown that drug-related symptoms cause craving and relapse. Research is also being conducted in the country, have mentioned the return to consumption equivalent to 80 to 87 percent, and in the statistical analysis, the highest return was related to the first 6 months (Hashem Zadeh et al., 2013).

In addition, studies in recent years have endorsed the relationship between craving and attention bias (Rahmaniyan, 2004). Therefore, the need for intervention at the level of attention is necessary to reduce the temptation of drug use. Beck believes that with cognitive and behavioral techniques such as distraction, that presented by Clark and Tisdell in order to control intrusive thoughts and images, we can help patients in reducing the temptation evoked, by delaying the temptations and search.

On the other hand, one of the most influential and the most important model is the Self-Regulatory Executive Function Model (S-REF), which, it states

that all disorders can be associated with maladaptive pattern of recognition that is called Cognitive-Attention Syndrome (CAS) (Wells, 2000). Within the framework of Self-Regulatory Executive Function Mode, distraction techniques is considered as a form of emotion-focused coping that it is possible to take away the attention from emotional processing and threatened, and thus, temporarily, reduces emotional experience (Wells, 2000).

The craving for substance use behavior is necessary and based on the craving remains; it is the main cause of relapse to drug use and ties to drug addicts after treatment.

On the other hand, self-efficacy is a constructive power by which social and behavioral cognitive skills to investigate various objectives will be organized effectively. Knowledge of skills and previous achievements of individuals is not a good predictor of future performance of people, but human belief about his abilities, to do so, is effective in their performance. Therefore, increase self-efficacy leads to overcoming temptation and ability of coping with the symptoms of consumption. Results with Nazer and colleagues (2002) showed that environmental cleanup training, distraction, and thought stopping could clean more people in the experimental group up to 6 months. It also reduces the duration of temptations, but did not cause significant differences in the frequency of

temptations days. Generally, the use of this technique reduces temptation and craving. Firozabad and colleagues (2009), in their study, showed that both methods have been effective in reducing the temptation of drug use and the slip in drug-dependent subjects. The results of Hashem Zadeh and colleagues (2010), Pourseyedi Mosaei (2012) showed a significant positive correlation between the stress and the induced craving and between the stress and moment craving.

Studies abroad show that distraction, primarily, is effective in anxiety and not in the influence frequency and it has a significant relationship with clinical management on intrusive thoughts and distraction. (Sadia Najmi, 2009) The effect of thought distraction has a key role in immunization to reduce pain behavior response in toddlers, and in reducing pain of children (DS Gedan et al., 2013). The results of Plodrer et al (2014) showed that distraction techniques, by reinforcing efforts and providing opportunities, reduced craving for cigarettes.

As a result, it seems that by using distraction techniques, which are easy to use, we can reduce craving and increase the self-efficacy of drug-dependent people and Stimulants. Thus, based on the research objective and according to studies, this study attempts to answer the fundamental question, "Are distraction techniques, effective on willingness to use drugs (craving) and self-efficacy in women addicted to drugs and stimulants?"

## 2. The research hypothesis

### 2-1 The main hypothesis

Teaching techniques of distraction are effective on the willingness of drug use (craving) and self-efficacy in women addicted to drugs and stimulants.

### 2-2 Sub-Hypotheses

1. Teaching techniques of distraction are effective on Self-Efficacy in women addicted to stimulants.

2. There is a difference between the effect of distraction techniques, teaching on the willingness to drug use (craving) in women addicted to drugs and stimulants.

3. There is a difference between the effect of distraction techniques, teaching on the Self-Efficacy in women addicted to drugs and stimulants.

## 3. Research Methodology

The research plan is quasi-experimental and two group pretest-posttest. In this study, according to the purpose of this study based on comparing the effectiveness of the training techniques of distraction and self-efficacy thoughts, on drug craving and self-efficacy in women dependent on Stimulants and narcotics, two groups were considered. The independent variable was presented to both drug

consumer groups and stimulants consumer groups. Before and after the intervention, both groups were asked to respond to questionnaires. Pre-test and post-test differences between groups were analyzed for statistical significance. The study population consisted of 60 patients that were addicted to the drug, referred to doctor Jafari's rehabilitation center date April 2015, and were under methadone maintenance treatment. The sample included 30 addicts who were at least 6 months of maintenance treatment with methadone syrup. Sample method was available and it was among the people admitted to Doctor Jafari's drug rehabilitation center. The 30 patients were in two groups of the drug user (n = 15) and stimulants consumer (15 persons). The questionnaire is used to collect data. For this purpose, the craving questionnaire by Haynes et al. (2006) and general self-efficacy questionnaire of Scherer (1982) have been used. The results of the analysis carried out in the questionnaire of Haynes et al (2006) in our research suggest that Cronbach's alpha coefficient about the effectiveness of teaching distraction techniques, and self-efficacy thoughts on the cravings to return to drug abuse was 92 percent in patients under treatment. The psychometric study conducted on the editing of the questionnaire shows that it has good reliability and validity (Hakim Elahi, 2014).

In the self-efficacy questionnaire, Scherer et al. (1982), while, in other studies (Jahani, 2009; Arabyan, 2004) as well, have obtained reliability coefficient 0.740 by using the Cronbach's alpha. The validity and reliability of Scherer (1982), cites the calculated credit equal to 0.76 through Cronbach's alpha for general self-efficacy. The validity of the scales obtained the structure validity, 35: 2005). In addition, in the study of Vaghari (2010), in the final analysis of self-efficacy, the Cronbach's alpha was 0.85. Najafi (2001), separated 30 samples randomly, conducted self-efficacy tests, and obtained the Cronbach's alpha equal to 0.83. In addition, through the method of the Spearman-Brown, it was 83%. In Ganji and Farahani's research (2009), the Cronbach's alpha coefficient was 81%.

Therefore, after determining the sample and measuring tools, all selected members of the study responded to the questionnaires in two groups of 15 persons, and total 30 persons. After that, the total treated patients were selected; they were randomly placed in two groups of drug users and stimulant users. People that were under treatment for 6 months of methadone have been trained in group therapy, which includes training techniques of distraction. After 3 months, at a plenary session, all participants responded the questionnaires of craving and self-efficacy.

Finally, in order to analyze the data in this study, descriptive and analytical and statistical methods were used by using software from SPSS. In descriptive statistics, mean and standard deviation of the table, and correlation and regression slope were calculated and to analyze the resulting data, inferential and analysis statistic of covariance were used.

#### 4- The research results

##### 4-1 descriptive findings

Descriptive findings of this study include statistics index such as mean and standard deviation of willingness scores to use the drug (craving) and self-efficacy of women in two dependent groups on drugs and stimulants before and after distraction training that are listed in Table 1 and 2.

Table 1: Pre-test and post-test statistics willingness to use drugs (craving) in groups linked to drugs and stimulants

	Groups	Phase	Average	The standard deviation	Groups	Phase	Average	The standard deviation
The desire to use drugs	Drug-Dependent	Pre-test	56.07	4.59	Drug-Dependent	Pre-test	53.33	11.09
		Post test	56.00	6.37		Post test	58.33	5.25

As Table 1 shows, there is no difference between the average scores of pre-test and post-test in drug abusers. However, there is a difference between the average scores of pre-test and post-test in stimulant abusers.

Table 2: Pre-test and post-test statistics of women's self-efficacy in groups linked to drugs and stimulants

	Groups	Phase	Average	The standard deviation	Groups	Phase	Average	The standard deviation
self-efficacy	Drug-Dependent	Pre-test	51.47	5.68	stimulants - Dependent	Pre-test	52.00	70.14
		Post test	58.47	3.54		Post test	59.20	2.62

As Table 2 shows, there is a difference between the average scores of pre-test and post-test in both groups of drug abusers and stimulant abusers.

##### 4-2 inferential findings

To test the first, second, third and fourth hypothesis, t-test was used and to test the hypothesis fifth and sixth, the covariance (ANCOVA) was used.

First, the normal distribution of scores assumption was examined as a default for t test by Shapiro test. The results showed normal distribution of scores in pre-test and post-test group.

##### 4-2-1 research hypothesis test

To test the first to fourth hypothesis, t-test was used. Table 4 shows the statistical results of t-test.

Table 4: Statistical Results of t-test to compare pre-test and post-test scores for drug willingness and self-efficacy in women drug addicts

Research hypotheses	Variable	test	Number	Average	The standard deviation	The mean difference	t	Degrees of freedom	Significance level	Test result
The one hypothesis	self-efficacy	pre-test	15	52.00	7.14	-7.20	-3.254	14	0.006	Hypothesis confirmation
		post-test	15	59.20	2.62					

According to the results of the one hypothesis test in Table 4, the significance level of t value is smaller than the assumed error (0.05) ( $-3.254 = t$ ,  $0.006 = p$ ). Therefore, the fourth hypothesis is confirmed. This means that the training techniques of distraction increased the self-efficacy in women addicted to drugs.

Consequently, in order to test the hypothesis second and third, the analysis of covariance test

(ANCOVA) was used. Of course, at first, the assumption of covariance analysis was done<sup>1</sup>, and the results showed, all levels of significance are higher than the value (0.05). Therefore, these results suggest the lack of a violation in the normal distribution assumption of scores in all categories, and the results

<sup>1</sup> Due to the limitations and concisely on paper, the tables have been avoided.

showed homogeneity assumptions of regression slopes and the equal assumption of variances. In examining the second and third hypothesis, we can use the one-way covariance analysis that the results of this analysis are presented in table 5.

As Table 5 shows, in the second hypothesis, after adjusting pretest scores, no difference was obtained between the two groups in the mean scores of willingness to use drugs ( $0.248 >$ , sig  $1.392 = (27,1) F$ ,  $0.049 =$  Chi Eta details). Therefore, the fifth research hypothesis is not confirmed. In other words, there is no difference between the teaching techniques of

distraction effect on the willingness of the drug (craving) in women addicted to drugs and stimulants.

Also, in the third hypothesis, according to table 5 findings, after adjusting pretest scores, no difference was obtained between the two groups in the mean scores of self-efficacy ( $0.541 >$ , sig  $0.383 = (27,1) F$ ,  $0.014 =$  Chi Eta details). Therefore, the sixth research hypothesis is not confirmed. In other words, there is no difference between the teaching techniques of distraction effect on the self-efficacy in women addicted to drugs and stimulants.

Table 5: The results of covariance analysis in post-test scores, willingness to use drugs in both groups with controlling the pretest

assumptions	Source of Change	Sum of squares	Degrees of freedom	Sum of squares	f	Significance level	Chi Eta minor	Power of the test	Result
Hypothesis second	The corrected pattern	56.430	2	28.215	0.812	0.454	0.057	0.74	Rejection
	Constant	1806.569	1	1806.569	52.016	0.000	0.658	1.000	
	Pre-test	15.597	1	15.597	0.449	0.508	0.016	0.99	
	group	48.337	1	48.337	1.392	0.248	0.049	0.79	
	Error	937.737	27	34.731					
Total	99035.000	30							
Hypothesis third	The corrected pattern	5.129	2	2.564	0.255	0.776	0.019	0.86	Rejection
	Constant	1407.058	1	1407.058	140.167	0.000	0.837	1	
	Pre-test	1.095	1	1.095	0.109	0.744	0.004	0.62	
	group	3.848	1	3.848	0.383	0.541	0.014	0.92	
	Error	271.038	27	10.038					
Total	104117	30							

## 5. Conclusion

The present study was done and aimed to compare the effectiveness of distraction techniques on the self-efficacy and the tendency to use drugs (craving), in women addicted to drugs and stimulants, referred to an addiction treatment center of doctor Jafari in the city of Yazd, Iran. In this regard, third hypotheses were studied and the results showed, Not reusing drugs, with the potential to return to the nature of drug addiction, is a critical part in designing a suitable program of treatment. The results of this study are consistent with the research of Pourseyed Mosaei, Mousavi, Kafi (2012), Nazer, Sayadi, Khaleghi (2002), Firozabadi, Ghanbari, Hashem Abadi, Tabatabai (2009), Brand polodrr et al (2014). To explain these results, we can say, the investigations of recent years endorsed the relationship between craving and distraction, so that, the distraction is considered as a cognitive component of craving or responsible for it. Temptations and uncontrollable desire, during

treatment and after that, because of the nature of their return, are important factors in treatment failure and return, and learning how to cope with cravings and temptations and reduce it, can be one of the main goals of treatment. Moreover, taking into account the specific situation of the patients, in the next period of detoxification, the need for more powerful training and more practice of clear techniques to the patients, in order to counter and reduce the craving, is essential. Evidence suggests, according to matter that the teaching of distraction techniques is not effective in reducing the willingness of drug-dependent women. According to Franken (2003), distraction toward signs related to the drugs, which is automatic, is an important determinant of craving and drug-seeking behavior. So, if the drug user will be taught and followed up regularly to devote his attention to the separation of related drug symptoms, probably, craving and drug-seeking behavior reduces. As a result, distraction training, a combination of other

techniques, can effectively deal with high risk situations, by reducing craving and the risk of relapse in these situations (Monafo and Albert, 2006). Improved control, by this technique allows one to refine his inefficient knowledge and process potentially threatening stimuli without the formation of cognitive or biased cognitive processes. By treatment of attention training, ability to access disapproval processing increases and better conditions will be provided for the creation of better Meta attention to control (Wells, 2000).

In addition, among the various aspects involved in the addictive process and follow it, craving, plays an important role in recurrence after treatment and maintain the situation of drug abuse and drug dependence. According to some research, the main reason for craving is having drugs and maintenance of consumption means in the patients and lack of skills necessary in dealing with the consumer and the environment, which in such a situation, the use of distraction techniques cannot be helpful in the field (Avantz, Margolin, and küsten and Kune1995).

According to the evidence and based on the one hypothesis, distraction techniques have been effective on self-efficacy in women dependent on drugs and Stimulants. The results are consistent with the results of Pourseyed Mosaei, Mousavi and Kafi (2012). Beck said that, craving rooted in myths, in need of drugs as well as, according to cognitive-behavioral model, distraction technique increases self-efficacy feeling of drug and it is considered as a coping strategy. Similar studies have shown that an increase in skills could be effective on self-efficacy. Including a research that has shown a significant positive correlation between the mental skills of athletes, team and individual, with their self-efficacy. Using distraction techniques in the self-efficacy can inhibit negative emotions and reduce the lack of control feeling over individual behavior for willingness to use and reduce dependence. Application of distraction requires that a person considers negative events as a normal part of life, without doing something to avoid the experience of those events. In other words, when thoughts cause regarding the acceptance of an event that had happened to a person, he will try to come along reasonably and since he hopes for a better future, logically, he tries for a better situation.

The results of the second and third hypothesis showed no difference between the teaching techniques of distraction effect on the willingness of the drug (craving) and self-efficacy in women addicted to drugs and stimulants. Research was not found in this field that compared the effectiveness of psychological treatment in the two groups. Since, psychotropic drugs are nervous system drugs, which have hallucinogenic properties and do not have physical addiction and only

create mental dependence, it seemed, distraction techniques can be able to help this group of people so that people do not use drugs. The central nervous system, that are part of weakness drugs, pain reliever and highly addictive and often create severe physical dependence.

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