

**THE ROLE OF EMOTION REGULATION, DISSOCIATIVE EXPERIENCES AND INTOLERANCE OF UNCERTAINTY IN THE PREDICTION OF CRAVING BELIEFS IN DRUG ABUSERS WITH TRAUMATIC EXPERIENCE**

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**ABSTRACT**

The study aims to determine the role of emotion regulation, dissociative experiences and intolerance of uncertainty in predicting the craving beliefs in drug abusers with traumatic experience. This research is descriptive and correlation. The study sample consisted of all drug abusers with traumatic experience admitted at rehab centers in Ardabil during March to September, 2014. The sample size consisted of 120 addicts who were selected by convenience sampling method. Traumatic events screening inventory- self report form, cognitive emotion regulation, dissociative experiences, intolerance of uncertainty scale and craving beliefs were used. The data was analyzed using Pearson correlation and multiple regression analysis. The results showed that negative emotion regulation strategy has a positive significant relation with tempting ideas and positive emotion regulation strategy has a negative significant relation with craving beliefs. Also, the results indicated a positive significant relation between uncertainty and craving beliefs, but there were no significant relations between dissociative experiences and craving beliefs. The results of multiple regression analysis showed that negative emotion regulation strategy and intolerance of uncertainty can significantly explain the craving beliefs in addicts with traumatic experience. Thus, it can be expressed that as negative emotion regulation strategies and intolerance of intolerance of uncertainty have impact on craving beliefs on drug abusers with traumatic experience.

**KEYWORDS:** craving beliefs, dissociative experiences, intolerance of uncertainty, positive and negative emotions regulation strategies.

**INTRODUCTION**

Addiction and its complications are among the most important problems in society (Sargolzaee, 2000). According to statistics, the prevalence of addiction is over 7.5 -8% of the adult population of the country, while in the advanced industrial countries it takes only 1 to 2% (Ekhtiari, 2008). In a study conducted by Drug Abuse Institute of Education in the 28 provinces in 2004, the number of drug-dependent people in the country were estimated to be between 1200000 and 1800000 (Ekhtiari, 2008). Research has also shown that the age of addiction onset has been 14 years old. This figure represents an early onset of addiction in our society. However, some people also pointed to the use of more than one substance (Sargolzaee, 2000). Drug addicts are affected with psychiatric and psychological problems in addition. Research has shown that the set of negative features of neurosis are related to impulsivity in individuals with substance abuse disorders (Narimani, Eyvazi, Abolghasemi, 2014). Psychiatric score of addicts is significantly higher than that of non-addicts. This indicates the presence of psychotic streak in addicts. This means that addicts suffer from mental illnesses such as anxiety and depression (Tayyebi, Abolghasemi, Mahmood Alilu, Monirpoor, 2013). The high rate of recurrence of the disorder is one of the challenges professionals who work in the field of drug dependence are faced with. Clinical experience and research show that many people after detoxification phase return to recur drug dependence due to its chronic and recurrent nature (Narimani, Eyvazi, Abolghasemi, 2014). Research findings have shown that abuse craving plays an important role in recurrent after treatment and maintaining abuse position and drug dependence and is the main factor in recurrent to drug after discontinuation. Temptation is a strong resistant craving to drug abuse, if not met, will be followed by Psychological and physical suffering such as anorexia, anxiety, insomnia, aggression and depression (Jafari, Eskandari, Sohrabi, Delavar, 2009).

Exposure to traumatic events is a common phenomenon. The estimated lifetime prevalence of these events, in different studies is from 26 to 92.2% for males and from 17.7 to 87.1 percent for females (Creamer, Bell and Failla, 2003). In

Iran, the study conducted by Jaber Qaderi, Babaei, Nori, Zadmir, Kazemi, *et al*(2008) showed that 57.5% of children (23% female and 7/23% male) at least had experienced one traumatic event in their lifetime. Experience of traumatic life events in addition to post-traumatic stress disorder has been associated with many other psychiatric outcomes. Unlike other mental disorders, the experience of depression and anxiety symptoms associated with traumatic events is being established. According to Jaber Qaderi, *et al*(2008) in traumatic disorders, often alcohol and drugs are used as a way of avoiding internal cues that leads to drug abuse, or dependence on them. It seems that psychological factors such as emotion regulation have a moderating role in substance abuse disorder. Emotion regulation refers to efforts to change the thoughts, emotions, impulses, desires, behaviors and emotional process (Azizi, Mirzaei, Shams, 2010). Novak and Clayton (2001) research has shown that emotion regulation problems are related to weaknesses in the control of drug and alcohol Abuse. In contrast, among drug abusers, those with more skills self-regulation are better able to reduce their intake. According to Bamistr et al, the self-regulation characteristics are antecedents and consequences of alcohol consumption. Weak self-regulation makes the individual vulnerable to drug abuse; drug abuse can impair the performance of self-regulation. Low levels of emotional regulation resulting from the inability to deal effectively with emotions and their management are involved in the initiation of substance abuse (Parker, Taylor and Bagby, 2001). Mohammad Khani, Sadegh and Farzad (2012) demonstrated that negative emotion relationships (dysregulation) predict drug-related beliefs and tempting ideas to recur to drug.

Uncertainty is another variable examined in terms of its association with craving. In dealing with situations of distress people with a low tolerance for ambiguity turn to substance abuse or crime due to low tolerance for ambiguity. It seems that addicts have high intolerance of uncertainty in the face of everyday problems and drug may help to avoid this. Substance abusers cannot tolerate stressful situations and their sensitivity leads to mental and emotional problems so they refer to Psychotropic drugs to regulate their cognitive experiences. Ahmadi Tahor and Najafi (2012) demonstrated that in the decision making in the time of uncertainty it would be better to tolerate ambiguity and understand the risks. Nasirieshoshi (2011) indicated that there is a significant difference among drug abuse, intolerance of ambiguity and uncertainty tolerance uncertainty in both groups of addicts (drug addicts on Narcotics and addicts as NA members). Another variable is the dissociative experiences. Dissociative experiences are separation between individual actions that appeared as a defense against trauma. Dissociative experiences do not only lead to abnormal functioning and mental disorders but also effect on the interpersonal relationships and various functions (Sadock and Sadock, 2007). Few studies exist on the relations between dissociative disorders and substance abuse. Karadag (2009) showed that 39% of 100 addicted patients were chemically with dissociative disorders. Also, 25% of patients with substance abuse disorder had dissociative disorder, respectively. The basic research question is whether the emotion dysregulation, dissociative disorder and uncertainty have any significant roles in the prediction of tempting ideas in addicts with traumatic experience?

## MATERIALS AND METHODS

This is a descriptive- correlation study. The study sample consisted of all drug abusers with traumatic experience admitted at rehab centers in Ardabil during March to September, 2014. The sample size consisted of 120 addicts who were selected by convenience sampling method. Data collection tools included questionnaires as follows:

The Dissociative Experiences Scale (DES): Bernstein and Putnam (1986) is a brief, 28 items, and self-report inventory of both normal and abnormal experiences. The DES was developed "to offer a means of reliably measuring dissociation in normal and clinical populations" (Bernstein and Putnam, 1986). Preliminary psychometric data reported by the authors of the scale indicated that summary scores were temporally stable ( $r$  [after 4 to 8 weeks] = .84) and successfully discriminated patients with multiple personality disorder (MPD) from normal's and other pathological groups (Bernstein and Putnam, 1986).

**The Intolerance of Uncertainty Scale (IUS):** The Intolerance of Uncertainty Scale (IUS; Freeston et al., 1994) contains 27 items relating to the idea that uncertainty is unacceptable, reflects poorly on a person, and leads to frustration, stress, and the inability to take action. The IUS contains items such as, 'Unforeseen events upset me greatly' and 'Uncertainty makes me uneasy, anxious, or stressed'. The IUS is designed to assess trait intolerance of uncertainty, as the directions instruct the responder to describe to what extent each item is characteristic of them. Items are rated on a five-point Likert scale ranging from 1 = 'not at all characteristic of me' to 5 = 'entirely characteristic of me'.

me', with higher scores representing a greater intolerance of uncertainty. A recent factor analysis of the IUS (Carleton, Norton, Asmundson, 2007) found a more parsimonious 12-item version that was highly correlated with the 27-item version, but had better psychometric properties. Carleton et al. also conducted a confirmatory factor analysis on the 12-item version of the IUS. This analysis indicated that a two-factor model provided the best fit, with the first 7-item factor being named Prospective Anxiety (IUS-PA; i.e., fear and anxiety based on future events) and the second 5-item factor being named Inhibitory Anxiety (IUS-IA; i.e., uncertainty inhibits action or experience). In further support of the Carleton et al. two-factor solution, McEnvoy and Mahoney (2011) recently compared six different factor structures of the IUS that have been identified in the literature, and found that the Carleton et al. 12-item two-factor model provided the best fit to the data. In the present study our primary analyses involved the 12-item total score, but similar analyses with the full 27-item scale yielded nearly identical results.

**Craving Beliefs Question (CBQ):** is a self-report questionnaire composed of 20 items measuring methamphetamine craving beliefs. Statements address the psychological, physical, and behavioral aspects of craving. Participants rate their agreement on each of these items using a 7-point Likert scale (1 = totally disagree to 7 = totally agree), with higher scores indicating more catastrophic or unrealistic (i.e., negative) beliefs about craving for methamphetamine. The questionnaire has not undergone extensive validation to date and is utilized here as a potential clinical tool to examine the clinical construct of Meta cognitions about craving. Item examples include "once the craving starts I have no control over my behavior" and "when craving drugs it's OK to use alcohol to cope." (Beck, Wright, Newman, Liese, 1993).

**Cognitive Emotion Regulation Questionnaire (CERQ):** The CERQ can be used to measure cognitive strategies that characterize the individual's style of responding to stressful events as well as cognitive strategies that are used in a particular stressful event or situation, depending on the nature of the questions under study. The CERQ is designed to be a self-report questionnaire that can be administered to people aged 12 years and older as from that age, people can be considered to have the cognitive abilities to grasp the meaning of the items. Items are measured on a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always). Individual subscale scores are obtained by summing up the scores belonging to the particular subscale (ranging from 4 to 20). The higher the subscale score, the more a specific cognitive strategy is used. The psychometric properties of the CERQ (both used as a more general coping style and as a more specific response to a specific event) have been proven to be good (Garnfski, Komner, Karaaji, Teerds, Legrste, Onstein, 2002), with Cronbach's alpha coefficients in most cases well over .70 and in many cases even over .80. Furthermore, the CERQ has been shown to have good factorial validity, good discriminative properties and good construct validity (Garnefski et al., 2002). In the present study the Cronbach's alpha of the subscales also appeared to be good, with alphas ranging from .62 to .85.

**Traumatic Events Screening Inventory- Self report Form (TESI-SR):** TESI is a 24 item scale developed by Ford, Racusin, Acker, Bosquet, Ellis, Schiffman (2002) for the purpose of probing the history of exposure to traumatic events and distinguishing these events from other negative life experiences in Children and adolescents aged 6 – 18. The TESI inquires about a variety of traumatic events, including current and previous injuries, hospitalizations, domestic violence, community violence, disasters, accidents, physical, and sexual abuse. The issue of whether the child's reactions raised to the level of Criterion B of PTSD is evaluated in this inventory. It should be noted that in this research, items related to sexual abuse were omitted from the inventory by HARASAT office located in education department. TESI showed good correlation with other screening traumatic events inventories.

## RESULTS

As seen in Table 1, there is a positive correlation between negative strategies and negative correlation between positive strategies of sub-component of Cognitive Emotion Regulation Strategies, with craving beliefs ( $P < 0.01$ ) and there is a positive correlation between Intolerance of Uncertainty with craving beliefs ( $P < 0.01$ ).

**Table 1. Mean standard deviation and Correlation between negative strategies, positive strategies, Intolerance of Uncertainty and Dissociative Experiences with craving beliefs**

Variables	$\bar{X}$	SD	1	2	3	4	5
1- craving beliefs	72.79	15.83	1				
2- negative strategies	21.62	4.82	0.45**	1			
3- positive strategies	27.98	7.26	-0.26**	-0.36**	1		
4- Intolerance of Uncertainty	74.22	14.65	0.33**	0.35**	-0.20*	1	
5- Dissociative Experiences	198.21	24.46	-0.05	-0.08	0.02	0.01	1

Note. \*P<.05. \*\*p<.01.

**Table 2. Summary of regression model and statistical characteristics of craving beliefs**

Predicted variables	b	SEB	Beta	t
constant	23.65	9.71	-	2.434**
negative strategies	1.405	0.363	0.368	3.867***
Intolerance of Uncertainty	0.246	0.121	0.193	2.026*

Step1:  $R^2=0.192$  (F= 23.80); step 2:  $R^2= 0.224$ ( F= 14.32). \* P<.05. \*\*p<.01. \*\*\*p<.001.

Negative strategies and Intolerance of Uncertainty entered the equation in two steps to explain craving beliefs. In general, the regression equation to predict craving beliefs in the last step is as follows: **Craving Beliefs = 23.65+ (1.405) negative strategies + (0.246) Intolerance of Uncertainty**

## DISCUSSION

Research was conducted to determine the role of emotion dysregulation, dissociative experiences and uncertainty in the prediction of drug addiction tempting ideas and return to drug abuse in addicts with traumatic experience. The results showed that there is a significant relation between emotion dysregulation and tempting ideas in addicts with traumatic experience. So that tempting ideas in drug abusers with traumatic experience increases by increased emotion dysregulation. These results are in line with the findings of Ehring and Quack (2010), Mohammad Khani *et al*(2012) and Weiss, Tull, Lavender, and Gratz\_ (2013). Ehring and *et al*(2010) showed that there is a relationship between emotion regulation and drug abuse and emotion dysregulation factors influencing the propensity to consume (tempting ideas) substances. Also, Weiss and *et al.* (2013) reported that disorder of emotion regulation (emotion dysregulation) is significantly related to substance abuse in people with traumatic experiences .According to the researchers, the individual's cognitive system assessment when faced with a negative event is very important. Human health is arising from the use of two-way interaction between cognitive emotion regulation strategies and accurate assessment of the tense situation. Cognitive emotion regulation strategies help individuals to regulate negative emotions and impulses. This method of regulation due to lack of information, wrong or irrational beliefs and cognitive strategies for dealing with the living condition stimulates the individual. The choice of dysfunctional coping strategies (emotion dysregulation) is effective in cognitive, emotional and behavioral dimensions. So that, inability to control emotions caused by negative thoughts and beliefs are among inefficient coping strategies about worry and use of substance (such as the propensity to consume drugs). Emotion regulation plays an important role in coping with stressful life events. Emotion regulation in patients with posttraumatic stress disorder and traumatic experience is more difficult with more problems. The findings of the study revealed that people with traumatic experiences use negative regulation of fruitless attempts to solve their problem. In other words, the difficulty in organizing the emotions and negative excitement are of characteristics of people with traumatic experiences. It seems that people with a traumatic experience usually are not able to identify understand and describe their emotions and are with limited ability to cope with stressful situations because of emotional intelligence and cognitive disability in processing their emotions. This factor effects on their

attitudes (tempting ideas) toward substance abuse ( Zahed, Ghalilo, Abolghasemi, Narimani, 2011). The results of this research showed that there is no significant relation between dissociative experiences and tempting ideas in addicts with traumatic experience. The result was inconsistent with that of Schäfer, Reininghaus, Langeland, Voss, Zieger, Haasen, Karow (2007), Karadag (2009) and Evren, Cinar, Evren, Ulku, Karabulut, and Umut (2013). Schäfer and *et al*(2007) showed that dissociative experiences among alcohol dependent patients is relatively uncommon. They also showed that childhood trauma can contribute to the independent dissociative experiences and early onset and severity of alcohol abuse. Karadag (2009) as a result of their study reported that co morbidity of dissociative experiences is a temporary phenomenon and is not limited to a period of crisis and plays role in the entire dependence period. The lack of consistency in results may be due to the fact that Schäfer and *et al*(2007) research was conducted in the case of dissociative experiences on alcohol dependent individuals, and may have changed the results of the study due to the effects of alcohol on the brain system that is different from other drugs. The type of substance used by addicts should be considered. According to the results of studies, mental disorders in opioid dependent people are more dependent on opiates. Thus, this type of substances impact on the results. Also, the results showed that there is a significant relationship between uncertainties and tempting ideas among addicts with traumatic experience, so that tempting ideas increases by increasing uncertainty.

This result is consistent with that of Asadi Majareh, Abedini, Porsharifi and Nilkokar (2013) and Nasiri Shushi (2011). Nasiri Shushi (2011) revealed that there is a significant difference among substance abuse and intolerance of ambiguity and tolerance of uncertainty in two groups of drug abusers. The other results of this study showed that addicts have less tolerance of ambiguity and tolerance of uncertainty. In the implications of these results it should be expressed that tolerance of uncertainty is associated with cognitive features and addicts when they are faced with difficult situations act in very low levels of performance in terms of decision-making. Studies carried out to investigate the characteristics of drug abusers suggest that they use substances to regulate a wide range of cognitive events. Undoubtedly unpleasant emotional states, particularly anxiety, depression and stress in addicts are associated with the cognitive consequences. Drug abusers are not able to tolerate the unpleasant situations and uncertainty in the stressful conditions and their sensitivity leads to mental and emotional problems, therefore, they more turn to substances to regulate their own cognitive experiences (Spada, Nikčević, Moneta, Wells, 2007). The results of a study showed that individuals with lower tolerance to ambiguity find the ambiguous situations threatening, so they experience anxiety and this is exactly the problem that addicts are faced with. Many of them may find the substance use in the face of difficulties the only solution and therefore are not able to think or consider other solutions. While, those with high tolerance to ambiguity in face of unpleasant situation and uncertainty try to find a good solution to get rid of this condition as soon as possible. But those with a low tolerance to ambiguity and uncertainty cannot find an appropriate solution because of damage to their cognitive cycle and consequently turn to undetected compromise strategies such as the use of the substance (Ahmadi-Tahoorsoltani and Najafy, 2012). In conclusion, the current study was to ascertain the role of emotion dysregulation, dissociative experiences and uncertainty in prediction of tempting ideas among The result can be acknowledged that drug abusers with traumatic experience. The results showed that there is a positive significant relationship between emotional dysregulation and uncertainty and tempting ideas. However, there is no significant relationship between dissociative experiences and tempting ideas. The results showed that at least one of the variables studied can predict tempting ideas in addicts with traumatic experience. As a result it can be said that emotional dysregulation and uncertainty are among important psychological variables associated with tempting ideas in addicts with traumatic experience. Failure to control the type and amount of substance used are among the limitations of research. Because, according to the results of a study there is a significant effect of type and amount of drug craving and addicts are recurring to addiction.

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