Research Paper: Emotion Regulation Problems and Addiction Potential in Iranian Students

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ABSTRACT

Objective: Recent studies have shown that emotion dysregulation is one of the most significant factors in young people's tendency towards risky behaviors. Therefore, it seems necessary to study the role of emotion regulation strategies in drug-related behaviors. The goal of the present study was to examine the relationship between emotion regulation strategies, and addiction potential in the Iranian student population.

Methods: In this cross sectional study, a convenient sampling method was used to select a total of 388 students from the universities in Tehran. The Difficulties in Emotion Regulation Scale (DERS) and Addiction Potential Scale (IAPS) were used to collect data. The study data were analyzed using the Pearson's correlation coefficient and hierarchical regression analysis.

Results: According to the study results, limited access to emotion regulation strategies was the sole predictor of active addiction potential ($t=2.79$, $P<0.01$). Passive addiction potential was predicted by emotional awareness ($t=4.89$, $P<0.001$) and also by limited access to emotion regulation strategies ($t=5.01$, $P<0.01$).

Conclusion: Emotion regulation strategies and emotional awareness in relation to other components of emotion regulation were found to have more association with addiction potential. It was also seen that emotion regulation strategies training was effective in the prevention of drug dependence.

1. Introduction

Addiction is highly prevalent among youth, especially students and it is growing. The 12 month prevalence rates of substance abuse among adults in U.S are 12% for alcohol and 2%-3% for illicit drugs respectively (Merikangas & McClair, 2012). However substance abuse is more in college students; approximately 30% of college students report drug use (Dennhardt & Murphy, 2013). Youth is the highest percentage of the Iranian addicted population (~60%) and a major portion of this population are students (Ahmadi, 2000). Another study has showed the prevalence of addiction susceptibility in Iranian students to be 4.4% (Zeinali, 2013).

Furthermore, a study shows that 8.7% of Iranian students have been known to have illegally taken methyl-

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phenidate at least once in their lifetime (Habibzadeh et al., 2011). About 33% of Iran's population constitute young people (Taremian, Bolhari, Peiravi, & Tabatabaii, 2008); Given that many of them are currently studying in universities, it seems necessary to provide effective interventions, useful information and special services to them regarding drug abuse. Current studies on drug abuse among students provide different information, but most studies emphasize the fact that using illicit drugs is increasing among students. Numerous studies in universities in Iran have confirmed the high rate of drug use. In a survey study conducted by the Cultural Studies Department of Ministry of Science, Research and Technology on a sample of 21 universities throughout Iran, the rate of drug use was reported to be 10%. In other studies, the reported rates are lower, but they are still alarming (Taremian et al., 2008).

In this condition, a person may resort to unnatural methods like drug use in order to adapt to their difficult daily life and a new way of living (Vazirian, 2002). Therefore, it is necessary to prevent the harmful consequences of risky behaviors, especially drug use in student populations. Psychological factors are believed to play very important role in a tendency toward drug use (Hassan Shahi & Ahmadian, 2003). Emotion regulation is one the psychological factors that have recently become a topic of addiction studies, and some studies have found emotion regulation problems in drug-dependent people (Kober & Bolling, 2014).

Definitions of emotion regulation typically involve a set of personal and environmental strategies that affect one's emotional experience and expression. For example, Gross stated that "emotion regulation refers to processes by which people determine what emotions they have, when they have these emotions, and how they experience and express them" (Gross, 1998). Some other researchers emphasized the role of individuals, and also their social environment in the development of emotion regulation skills and, problems related to emotion dysregulation (O'Donohue, Fisher, & Hayes, 2004). The key symptom of emotion dysregulation is a high negative emotional arousal or continues interference with one's goals. This interference can be in the form of a maladaptive behavior for regulating (duration and intensity) negative emotions, or in the form of an emotional pain or suffering that prevents a person from normal self-regulating strategies (Gross, 1998).

Drug users use the physiological and psychological effects of drugs in order to regulate and modify their negative emotions and to acquire emotional stability (Suh, Ruffins, Robins, Albanese, & Khantzian, 2008). It's been proposed that the motivation behind drug use for many drug users is emotion regulation, and many of them believe that drugs have calming and anxiety-reducing effects (Baker, Piper, McCarthy, Majeskie, & Fiore, 2004). Many other studies have found similar results (Brandon, 1994; Koob, 2001). They indicate that the development of emotions in drug-dependent people has stopped or regressed. Krystal has repeatedly pointed out this fact in his studies (Krystal, 1978).

Impairment in impulse control in such people is consistent with the studies showing that emotions constantly change between anger, resentment, unclear feelings of depression, and discomfort in drug-dependent people. Negative emotion regulation strategies increase the likelihood of drug abuse. In addition, people who are unable to control their arousal are more vulnerable to drug abuse (Abolghasemi, Alah Gholilo, Narimani, & Zahed, 2011; Haj Seyyed Javadi, Mazinani, Fadaei, & Dolatshahi, 2007; Haji, Bahreynian, Naziri, & Modares, 2009; Shams, Azizi, & Mirzaei, 2010; Zargar, Najarian, & Naami, 2008).

As it seems, emotion dysregulation is playing a crucial role in individual's behavior toward addiction, and there is not enough literature especially in Iranian population, to explain this issue. Furthermore, considering the relation between emotion regulation problems and addiction potential in Iranian population may shed light on previous literature and show new assumptions and pathways. Moreover, most of the reviewed literature was about the addicted individuals and not their susceptibility to addiction. The study of addiction potential is an important step before people get involved in addiction behaviors and assessing its relation with emotion regulation strategies. This will help researchers and clinicians to understand its complex entity better and take appropriate steps to prevent it. According to the aforementioned approach, the main goal of present study was to assess the relationship between emotion regulation problems and addiction potential in student population.

2. Methods

The present study used a cross sectional design to examine the role of emotion regulation problems in drug-related behaviors among students in Tehran. The study sample included 388 individuals from Tehran University (139 women and 249 men), who were selected using a convenient sampling method. The statistical population consisted of students of Tehran universities in (school year of 2013-2014). Harris's (1985) formula rule of thumb was used to calculate the sample size (Wilson Van Voorhis & Morgan, 2007). The instruments used are the

Difficulties in Emotion Regulation Scale (DERS) and the Addiction Potential Scale (IAPS).

The Difficulties in Emotion Regulation Scale (DERS) was developed by Gratz & Roemer (Gratz & Roemer, 2004) and its final version has 36 items. A factor analysis revealed that six factors explain 55.68% of the variance of the DERS. This scale consists of six subscales, including 1. Non-acceptance of emotional responses (Non-Acceptance 2), 2. Difficulties in engaging in goal-directed behavior (Goals 3), 3. Impulse control difficulties (Impulse 4), 4. Lack of emotional awareness (Awareness 5), 5. Limited access to emotion regulation strategies (Strategies 6), and 6. Lack of emotional clarity (Clarity 7). High internal consistency has been reported for the items of the DERS (higher than 0.85 for every subscale), and test retest reliability has been reported to be as r=0.88 (Gratz & Roemer, 2004). Internal consistency of Iranian version has been acceptable, α=86 (Asgari, Pasha, & Aminiyan, 2009).

The Addiction Potential Scale (IAPS) was developed by Weed and Butcher (Weed, Butcher, McKenna, & Ben Porath, 1992) and some efforts have been made in Iran to assess its validity. In the present study, we use the Iranian version of this questionnaire developed by Zargar (Zargar et al., 2008), which is based on psychosocial characteristics of Iranian society. This questionnaire consists of two factors, 36 items, and 5 lie detector items. Most items in the first factor are related to antisocial behaviors, tendency to use drugs, positive attitude toward drugs, depression, and sensation-seeking. Most items in the second factor (the passive factor) are related to non-assertiveness and depression. Two methods were used to calculate the validity of the scale. Testing for criterion validity showed that this scale can properly differentiate between addicts and non-addicts. In addition, a significant correlation was found between this scale and the SCL-25 that supports the construct validity of the IAPS. The internal validity pf this scale in present study is as 0.88.

After preparing the questionnaires, they were classified randomly (to minimize the role of measurement errors as fatigue) and were given to student representatives in universities and dormitories, to be conducted on students. This procedure was monitored by researcher and student counseling centers in universities. Only the students in the age range of 18-55 years, studying in one of the Tehran universities and eager to participate were included in the study. The students were told that there was no obligation for participating and were assured that their identity and responses would be kept confidential. Before administering the questionnaires, their informed consent was also taken. Hierarchical regression analysis and correlation were used for analyzing the data via SPSS-23.

3. Results

A total of 436 students were selected from this population, out of which 48 students were removed due to incomplete questionnaires and outliers; therefore the final study sample included 388 individuals. The mean age of participants was 21.95(2.95). 92.5% of the participants were single. 240(61.9%) of the participants were bachelor students, 140(36.1%) were master's students, and 8(2.1%) were in doctoral programs (Table 1). The results of Pearson correlation coefficient (Table 2) showed positive correlations between components of difficulty in emotion regulation and active addiction potential (Table 3), and between these components and passive addiction potential (Table 4). Among the components of difficulty in emotion regulation, limited access to strategies (0.23) and non-acceptance (0.17) had the highest correlations with active potential. Also, limited access to strategies (0.37) and difficulties in engaging in goal-directed behavior (0.24) had the highest correlations with passive potential.

The results of a hierarchical regression analysis after controlling the effects of gender showed that limited access to emotion regulation strategies could significantly predict active addiction potential, and 18% of the variance of active addiction potential was significantly explained by the predictor variables. It also showed that that limited access to emotion regulation strategies coupled with lack of emotional awareness could significantly predict passive addiction potential, and 19% of the variance of passive addiction potential was significantly explained by the predictor variables.

4. Discussion

The present study aimed to examine the relationship between components of difficulty in emotion regulation and addiction potential in the student population of Tehran. The findings revealed positive and significant relationships between all emotion regulation components and addiction potential. Limited access to strategies and non-acceptance in the active potential category and limited access to strategies and difficulties in engaging in goal-directed behavior in the passive potential categories were the most significant ones. The results of regression analysis showed that predictor variable for active addiction potential was only limited access to emotion regulation strategies, whereas predictor variables for passive addiction potential included both lack of emotional awareness and limited access to emotion regulation strategies.

Table 1. Mean and standard deviation subscales of emotional regulation difficulties and addiction potential

Variable		Mean	SD
Difficulty emotion regulation	Non acceptance	17.17	2.84
	Goals	14.37	4
	Impulse	15.51	3.49
	Strategies	17.92	6.69
	Clarity	12.92	2.78
Addiction potential	Active	18.1	12.27
	Passive	13.78	4.8

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Table 2. Correlations between the subscales of emotional regulation difficulties and addiction potential

Addiction Potential	Non Acceptance	Goals	Impulse	Awareness	Strategies	Clarity
Active	0.17	0.13	0.16	0.03	0.23	0.15
Passive	0.21	0.24	0.21	0.18	0.37	0.12

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Students are faced with many stressors (such as educational and financial problems, problems related to dormitory life and so on). This stress and ignorance of healthy and useful strategies in dealing with problems can make students vulnerable to risky behaviors, such as drug abuse, alcohol abuse, unsafe sexual behaviors. In another study, on smokers, it has been shown that such people use smoking as a strategy to handle their emotions when experiencing negative moods (Johnson & McLeish, 2016). Welles has also pointed out that inefficient strategies like acting out, avoidance, and anger can increase the likelihood of drug use, and in contrast, efficient strategies like problem-solving can protect a person from starting or continuing drug use (Aldao, Nolen Hoeksema, & Schweizer, 2010).

Beside these strategies, emotion regulation also plays a key role in preventing addiction; in fact, many studies on addiction have pointed out the role of deficiencies in emotion regulation in addiction-related behaviors (Wong et al., 2013). Therefore, it is very important to impart skills training for emotion regulation to prevent addiction

Table 3. Regression model for active addiction potential according to subscales of difficulty emotion regulation

Variable	B	SEB	β	t
Constant	-12.88	5.51		-2.33*
Gender	8.87	1.21	0.34	7.32***
Non Acceptance	0.49	0.24	0.11	1.96
Goals	-0.28	0.21	-0.09	-1.34
Impulses	-0.04	0.22	-0.01	-0.18
Awareness	0.16	0.14	0.05	1.14
Strategies	0.35	0.12	0.19	2.79**
Clarity	026	0.21	0.06	1.22

*P<0.05; **P<0.01; ***P<0.001

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Table 4. Regression model for passive addiction potential according to subscales of difficulty emotion regulation

Variable	B	SEB	β	t
Constant	3.78	2.14		1.76
Gender	-0.22	0.47	-0.22	-0.47
Non Acceptance	0.00	0.09	0.00	0.06
Goals	0.13	0.08	-0.10	1.57
Impulses	-0.04	0.08	-0.03	-0.49
Awareness	0.27	0.05	0.23	4.89***
Strategies	0.24	0.05	0.34	5.01***
Clarity	-0.01	0.08	-0.01	-0.21

*P<0.05; **P<0.01; ***P<0.001

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and its relapse, and it must be considered as an important issue in both fields of addiction and psychotherapy.

Consistent with the study findings, previous studies have also emphasized on the role of emotion regulation in mental disorders, especially drug and alcohol abuse. For example, in a study on 4 categories of mental disorders (anxiety disorders, depression, eating disorders, and substance-related disorders), Nolen Hoksema found that patients suffering from these disorders mainly use maladaptive emotion regulation strategies (Aldao et al., 2010). In another study on emotion dysregulation in patients with substance use disorder, significant relationships were found between emotion regulation strategies, especially limited access to strategies, difficulties in engaging in goal-directed behavior, and non-acceptance and substance-use.

Fox et al. also showed that although alcohol had some effects in terms of controlling negative mood in alcohol-dependent people, in this group, deficiencies in emotion regulation skills could predict using alcohol during and after psychotherapy. In another study, those who were withdrawing from cocaine, scored high on lack of emotional clarity, lack of emotional awareness, and limited access to emotion regulation strategies (Fox, Axelrod, Paliwal, Sleeper, & Sinha, 2007). Consistent with the previous study on alcohol-dependent people, lack of emotional clarity and lack of emotional awareness were more impaired than other components, which is in accordance with present study (Fox, Hong, & Sinha, 2008).

Beside these components, other factors such as personal differences, personality styles, family issues, and social class should also be considered in terms of addiction potential. For example, people vulnerable to alcoholism tend to show exaggerated reactions to alcohol use and have more positive feelings about this experience than normal people. In addition, characteristics like novelty-seeking and sensation-seeking are higher in this group of people (Brunelle et al., 2004). Given that these components were not examined in the present study, we suggest future studies to explore these factors, in order to achieve a more comprehensive understanding of this subject. Moreover, the study participants were not selected randomly, and they were all from one university; therefore, we should be cautious in generalizing the study findings. We also suggest other researchers replicate this study in larger samples and include participants from both the genders.

Identification of factors involved in people's tendency toward addiction, especially young people, play an important role in the prevention and subsequent treatment. Therefore, teaching emotion regulation skills in life skills workshops may protect young people from drug-related problems.

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Conflict of Interest

All authors certify that this manuscript has neither been published in whole nor in part nor being considered for publication elsewhere. The authors have no conflicts of interest to declare.

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