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The Mediating Role of Self- Control in the Relationship between Emotion Regulation and Addiction Potential among Students

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Abstract

Introduction: Psychological factors are very important variables in the addiction potential. The aim of current research was to investigate the mediating role of self-control in the relationship between emotion regulation and addiction potential among university students.

Methods: This research was cross-sectional correlational. The statistical population of the present study included students from Yasouj University in the academic year 2017-18. 394 of the university students were selected by multi-stage cluster sampling method and responded to the Iranian scale of addiction potential, emotion regulation subscale, and self-control scale. The gathered data were analyzed by Pearson correlation coefficient, regression analysis, path analysis and sobel test ($p \leq 0.05$).

Results: Results showed that, emotion regulation could negatively predict addiction potential ($p=0.01$) and positively predict self-control ($p=0.01$). Also emotion regulation could indirectly predict addiction potential with the mediating role of self- control ($p=0.01$)

Conclusion: The results of current research implies the importance of psychological factors such as emotion regulation and self- control in explaining addiction potential. Also, the role of emotional regulation in direct and indirect explanation of addiction is important.

Keywords: Addiction Potential, Emotion Regulation, Self- Control, Students

Introduction

Addiction includes behaviors that a person performs repeatedly in order to gain pleasure or reduce stress, and despite the negative consequences he or she can not interrupt it due to lack of certain attributes and skills (1). Drug addiction and other addictive behaviors are considered to be personal and social harm that is associated with negative personal, familial and social consequences (2, 3). In the meantime, some psychological variables such as emotion regulation and self-control are of critical importance. Emotion regulation involves internal and external processes for monitoring, evaluating and modifying emotional reactions, and incorporating techniques such as distraction and reappraisal (4, 5). Emotion regulation helps the individual to adopt behavior appropriate to the situation and have a higher level of psychological and physical well-being (6, 7). Emotion regulation is also considered as a management strategy that can reduce individual stress (8). As a result, the individual tends to lessen his tension by using ineffective methods, such as the occurrence of addictive behaviors .Also, self-control means to control one's emotions, feelings, behaviors and desires against the demands of the external environment in order to act properly in the community (9), which is related to many positive consequences such as mental health and success in interpersonal relationships. Individuals with higher self-control use less effective methods, such as

avoidant coping style to deal with problems and challenges (10), to dominate their behavior in different situations and to be less enthusiastic to develop Non-constructive behaviors such as addiction (11, 12). Lack of emotion regulation skills can increase individual vulnerability to unpleasant emotions; As a result, a person will have less ability to self-manage and using non-constructive strategies, such as the tendency to addictive behaviors, tries to reduce tension and distress (6, 7). In fact, emotion regulation is a process that leads to self-management ability and, consequently, reduces the individual's vulnerability to stressful events (8). Given the importance of preventing addiction, it is important that studies to focus on the non-addictive population and on protecting factors such as effective emotion regulation and self-control, both of which can be learned. The purpose of this study was to investigate the role of self-control mediator in the relationship between emotion regulation and the addiction potential. The main hypothesis of the present study is that emotion regulation can predict the addiction potential in students, both directly and indirectly, with self-control.

Methods

This research WAS cross-sectional correlational. The statistical population of the present study included students from Yasouj University in the academic year 2016-17, 394 of them were selected by multi-stage cluster sampling based on Krejcie and Morgan table. The four faculties of the Yasouj University were considered as a cluster. At the next stage, out of each faculty, a few fields of study were selected randomly, then several classes were randomly selected and students were asked to complete questionnaires. The participants responded the questionnaires after providing the necessary explanations ensuring confidentiality of information and preparing individuals mentally and psychologically to participate in the research. In this study to assess addiction potential, the Iranian addiction potential Scale was used. This scale was built according to the psychological and social conditions of Iranian society by Zargar (2006). This scale contains 36 items and 5 lie scale items. Scoring takes place from *I totally disagree* (0) on a continuum to *I completely agree* (4) and the validity and reliability were reported to be valid (13). A criterion validity showed that this questionnaire significantly differentiated between addicted and non-addicted groups. The reliability of this scale using Cronbach's alpha coefficient reported 0.90 (13). In this study, Cronbach's alpha coefficient was 0.85. The self-control scale in was developed by Tangney *et al.* in 2004 for self-control of individuals as an attribute (14). The main form of the test consists of 35 questions. After a while Tangney *et al.* also provided a short form of the self-control scale. The short form has 35 questions and a higher score on this scale means more self-control. The subject must respond to questions on a Likert scale of 5 degrees from *never* (1) to *very high* (5). In a study the reliability of this scale using Cronbach's alpha coefficient reported 0.81 (15). In this study, Cronbach's alpha coefficient was 0.92. Also, in this study, to assess emotion regulation, the Schutte Self-Report Emotional Intelligence Test, developed by Schutte *et al.* in 1998, was used. The subject chooses the degree of agreement or opposition in each question on a Likert scale of 5, from *I totally disagree* (1) to *completely agree* (5). In a study the reliability of this scale using Cronbach's alpha coefficient reported 0.79 (16). In this study, Cronbach's alpha coefficient was 0.92. The collected data were analyzed by SPSS- 18 software using Pearson correlation coefficient, regression, path analysis and sobel test ($p \leq 0.05$).

Results

The age range of participants was 18 to 28 years with an average age of 21.84 and standard deviation of 1.92. The majority of students were single (91 percent). Table 1 shows descriptive information and Pearson

correlation coefficient between the research variables. There is a significant negative relationship between self- control and addiction potential (r= -0.34, P= 0.01) and significant positive relationship between self-control and emotion regulation (r= 0.69, P= 0.01) and addiction potential (r= -0.34, P= 0.01). Also there is significant positive relationship between self- control and emotion regulation (r= 0.69, P =0.01). It shows that there is a significant relationship between predictor (emotion regulation), mediator (self-control) and criterion (addiction potential) variables. To investigate the role of self-control mediator in the relationship between emotion regulation and the addiction potential, multiple regression techniques were used simultaneously in accordance with the Baron and Kenny (1986). In the first stage, the addiction potential is predicted based on emotion regulation. In the second stage, self-control is predicted based on emotion regulation, and in the third stage, the addiction potential is predicted based on emotion regulation and self-control. Finally, the first and third stages are compared, and if the path factor (beta) of the emotion regulation decreases from the first stage to the third stage, it indicates the role of self-control mediator in the relationship between emotion regulation and the addiction potential. The results of Table 2 show that the emotion regulation can negatively predict 11% of the variance in the addiction potential (F= 51.20, P= 0.001). It also can positively predict 48% of the self-control variance (F= 371.24, P= 0.001). Also Emotion regulation and self-control can predict 13% of the variance of the addiction potential (F= 31.36, P= 0.001). So, by entering the self-control variable, the predicted value of the criterion variable increased (r^2 = 0.13) and the path coefficient of the emotion regulation decreased (beta= -0.19). Also the results of sobel test showed that this mediating role is significant (P= 0.01). In fact, the self-control variable has been able to play a Mediator role between the emotion regulation and the addiction potential.

Table 1. Pearson correlation coefficient matrix between research variables

Variables	Mean	Standard Deviation	Addiction Potential	Self- Control
Addiction Potential	71.69	24.38	---------	----------
Self- Control	48.74	11.91	-0.34**	---------
Emotion Regulation	38.60	8.17	-0.34**	0.69**

Table 2. Results of regression analysis

prediction of addiction potential based on emotion regulation

	R	r^2	F	Beta	Sig
emotion regulation	0.34	0.11	51.20	-0.34	0.001

prediction of addiction self-control based on emotion regulation

	R	r^2	F	Beta	Sig
emotion regulation	0.69	0.48	371.24	0.69	0.001

prediction of addiction potential based on emotion regulation

	R	r^2	F	Beta	Sig
emotion regulation	0.37	0.13	31.36	-0.19	0.001
self-control				-0.21	

Discussion

The results of the study showed that there is a negative and significant relationship between the emotion regulation and the addiction potential in students that is consistent with the findings of other researches (17-19) and students who have a higher emotion regulation, as a consequence, has a less tendency to addiction. In the explanation, one can argue that emotion regulation helps the person not to react to emotional behaviors and has the ability to deal with difficult situations. One of the characteristics of addicted people is that they do not have the ability to deal correctly with the critical conditions and challenges that can normally occur in everyday life and they show more emotional behaviors. Research has also shown that addicted people tend to use more emotional coping styles than normal people (20). Also, the results showed that there is a negative and significant relationship between self-control and students' the addiction potential that is consistent with the findings of other researches (11, 21). In fact, students with higher self-control are less likely to be addicted to drugs. The tendency to addiction as a temptation can exist in everyone. On the other hand, self-control is described as a clever ability to resist temptation (21). Thus, individuals with high self-control show greater self-control towards their tendencies and temptations, including the temptation to perform addictive behaviors . Furthermore, the results of path analysis showed that emotion regulation can lead to reduced addiction potential due to increased self-control. Researchers find addictive behaviors one of the avoidant and ineffective coping strategies that individuals use to reduce their own problems (22, 23). As the skill of coping with stress and challenges can reduce the individuals' tendency to addiction, emotion regulation and self-control strategies through reinforcing problem-solving strategies can be effective in reducing the addiction potential for the students. These two components help the individual to adopt behavior appropriate to the situation (11, 16, 19, 21). In some way, emotion regulation also helps people's self-control and, through its reinforcement, reduces the addiction potential. A part of self-control is to control emotions that emotion regulation can help it. One of the non-constructive coping strategies with stressors and unpleasant emotions is the use of drugs or other addictive behaviors, while emotion regulation increases individual management of emotions and can enhance self-control as a result; the tendency to addiction is reduced. This research has been conducted among students of Yasouj University, so it is necessary to be cautious in generalizing the results to other statistical populations. The results indicated that there is a deficiency in emotional skills and a lack of control over their responses that predisposes a person to addiction. Therefore, it is possible to reduce the rate of addiction in the student population by conducting training courses based on learning the emotion regulation and self-control skills at the universities.

Conclusion

The results of current research implies the importance of psychological factors such as emotion regulation and self- control in explaining addiction potential. Also, the role of emotional regulation in direct and indirect explanation of addiction is important.

Ethical issues

Participation of students was voluntary, so they could withdraw from the study at any time.

Authors' contributions

All authors equally contributed to the writing and revision of this manuscript**.**

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