

## Research Paper

# Relationships between Anxious Attachment, Religious Attitude and Addiction Tendency in University Students With a Focus on Impulsivity



Fahimeh Rezaei<sup>1</sup> , Marzieh Talebzadeh Shoushtari<sup>1\*</sup> , Behnam Makvandi<sup>1</sup> , Fatemeh Sadat Marashian<sup>1</sup> 

1. Department of Psychology, Faculty of Humanities, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran.



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## ABSTRACT

**Background and Objectives:** Religion and spiritual attitudes are among the important factors affecting psychological and social injuries because spirituality influences people's attitudes, cognition, and behavior. The present study aimed to investigate the mediating role of impulsivity in the relationship between anxious attachment and religious attitude with the tendency to addiction among university students.

**Methods:** This descriptive-correlational study employed structural equation modeling (SEM). The study population consisted of all students at the Islamic Azad University of Ahvaz, Iran, of whom 300 were selected as the sample using convenience sampling. All participants completed the addiction potential scale (APS), experiences in close relationships (ECR) scale, religious attitude scale, and Dickman impulsivity inventory (DII). The data were statistically analyzed using SEM.

**Results:** According to the results, there was a significant relationship between anxious attachment with impulsivity ( $P=0.012$ ) and the tendency to addiction ( $P=0.001$ ). Moreover, there was a negative relationship between religious attitudes with impulsivity ( $P=0.001$ ) and the tendency to addiction ( $P=0.001$ ). There was a positive relationship between impulsivity and the tendency to addiction in the students ( $P=0.001$ ). The results also showed that impulsivity mediates the relationships between anxious attachment and religious attitudes with the tendency to addiction ( $P=0.001$ ).

**Conclusion:** The results showed that the proposed model fitted the data well. Accordingly, the tendency of young people to addiction can be reduced by training families and university students in safe attachment styles, spiritual teachings, self-restraint, and control of impulses.

### \* Corresponding Author:

Marzieh Talebzadeh Shoushtari, PhD.

Address: Department of Psychology, Faculty of Humanities, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran.

Phone: +98 (61) 33348320

E-mail: [talebzademarzieh@gmail.com](mailto:talebzademarzieh@gmail.com)



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## Introduction

**S**ubstance use disorder is a multidimensional psychiatric disorder characterized by maladaptive drug-use patterns and associated with negative consequences such as anxiety, depression, and low quality of life [1, 2]. Drug dependence, a chronic and recurring mental disorder that causes loss of control over one's behavior and severe disturbances in motivation, is usually observed in a specific social stratum or class [3, 4]. Anxious attachment styles play a major role in the tendency to addiction [5]. Attachment styles, as a transformational factor, are crucial for the development of personality and behavioral tendencies [6]. The attachment system is a behavioral system adapted to fight and reduce levels of tension or arousal caused by fear. It can be hence considered the psychological version of the immune system [7]. This system also takes part in the development of personality disorders and antisocial behaviors. Individuals with an anxious attachment style are highly concerned about feeling alone in a relationship; they have high hopes of being in relationships with their life partners and expect to attract security and happiness from these relationships [8]. Studies have reported that anxious attachment develops during childhood and progresses into adulthood [9]. Religion and spiritual attitudes are among the very important factors affecting psychological and social injuries because spirituality influences people's attitudes, cognition, and behavior [10].

Spirituality, as a mediator, affects one's thought processes and evaluation of daily events [11]. Religious attitudes are coherent and integrated monotheistic beliefs in God as the center of all affairs and harmonize human values, ethics, customs, and behaviors [12]. The peace that religion provides is accompanied by a strong sense of responsibility and belief in man's immortality and the superiority of the spiritual aspects of life over the material world. It has been shown that there is a relationship between finding peace of body and mind and having a religious attitude, and being disconnected from God and spirituality is associated with vulnerability [13]. According to Villani et al. [14], religious attitudes are used to satisfy one's basic needs in the field of personality and social psychology; such individuals take religion as a barrier against mental injuries. Salmabadi et al. [15] reported that there were significant differences between addicted and non-addicted individuals in spiritual health. On the other hand, impulsivity appears to play a role in the tendency to addiction [16].

The inability to control one's behaviors, feelings, and instincts, despite the desire and motivation to act, is referred to as impulsivity [17]. Impulsivity has been defined as a common factor in the occurrence of psychosocial injuries, as well as the advanced preparedness of an individual to react quickly to internal or external stimuli without considering the consequences for themselves or others [18]. Positive and negative urgency (hasty actions in a positive or negative emotional context, respectively), lack of reflection (not considering the consequences of actions), lack of perseverance (difficulty concentrating on hard tasks) and sensation seeking (tendency to respond to stimuli and engage in exciting activities) are the most important dimensions of the concept of impulsivity [19]. Some examples of impulsive behavior are drug abuse, delinquency, pathological obsession and gambling, violence, and risky sexual behavior [20].

Given that high risk-taking endangers people's physical and mental health and prevents them from proper social functioning, it is highly necessary to investigate the factors that cause impulsive behavior. In addition, looking at the ever-increasing statistics of drug addiction, especially its spread among young people and students, it is clear that the young generation, who must contribute to the development and progress of society, are exposed to addiction. Therefore, extensive and in-depth investigations should be conducted to identify the underlying factors of addiction in young people. Because few studies have been done in the field of knowing the antecedents and underlying factors of addiction in Iran, in this research, we tried to examine some variables that may be predictors of drug addiction among students. Accordingly, the present study aimed to investigate the mediating role of impulsivity in the relationship between anxious attachment and spiritual attitude with the tendency to addiction among university students.

## Methods

This descriptive-correlational study was conducted using structural equation modeling (SEM), which is an extension of the general linear model that allows the researcher to test a set of regression equations at the same time. The study population consisted of all students of educational sciences and psychology at the [Islamic Azad University of Ahvaz, Iran](#), in 2021. The study sample included 300 students selected using convenience sampling. Considering the number of direct paths (11), exogenous variables (2), covariances (1) and error variances (4), the calculated number of parameters was 18. According to the recommendations of Kline [21], there have to be at least 10 participants for each parameter for

testing models. Since the sample size in this study was 300, seventeen participants were considered for each parameter. This indicated the adequacy of the research sample for testing the model. The inclusion criteria were freely giving informed consent to participate in the research, being at the university for at least 1 term, not being diagnosed with psychological disorders or visiting a psychiatrist during the study, and completing the research questionnaires. The exclusion criteria were being dissatisfied with and not cooperating in the study and not completely filling out the questionnaires.

### Measurement tools

**Addiction potential scale (APS):** The APS scale was Developed by Weed et al. [22], including 41 items (36 ordinary items plus 5 lie detector items) to measure the tendency to addiction. The items are scored based on a 4-point Likert scale (from 0: Totally disagree to 3: Totally agree). The minimum and maximum scores on this scale are 0 and 180, respectively, and higher scores indicate a stronger tendency toward addiction. The validity of the Persian version of the APS was confirmed by Iranian researchers [23]. Shafikhani et al. [23] reported the reliability for the APS at 0.83. In this research, the Cronbach  $\alpha$  coefficient for the APS was 0.87.

**Experiences in close relationships (ECR) scale:** Developed by Brennan et al. [24], ECR has 36 items that assess attachment insecurity via two categories: Attachment avoidance and attachment anxiety (18 items in each category). It measures attachment in the four subscales of attachment to mother, attachment to father, attachment to friends, and attachment to spouse. The items are scored based on a 5-point Likert scale (from 1: Totally disagree to 5: Totally agree). The validity of the Persian version of the APS was confirmed by Iranian researchers [23]. The validity of the Persian version of this scale was confirmed in previous studies [25]. Moreover, Panaghi et al. [25] reported the reliability of the ECR scale at 0.87.

In this research, the Cronbach  $\alpha$  coefficient for the ECR scale was 0.84.

**Religious attitude scale:** Developed by Khodayari Fard et al. [26], the religious attitude scale consists of 40 items that are scored based on a 5-point Likert scale (from 1: Very low to 5: Very high). The total score on this scale ranges between 40 and 200, and higher scores indicate more intense religious attitudes and beliefs. The validity of the Persian version of the scale was confirmed by Iranian researchers [26]. Khodayari Fard et al. [26] reported the reliability of the religious attitude scale at 0.95. In this research, the Cronbach  $\alpha$  coefficient for the religious attitude scale was 0.89.

**Dickman impulsivity inventory (DII):** The DII [27] consists of 23 items. The Yes and No answers are given a score of 1 and 0, respectively, and high scores indicate higher levels of impulsivity. The validity of the Persian version of the DII was confirmed in previous studies [28]. Ekhtiari et al. [28] reported the reliability of the DII based on the Cronbach  $\alpha$  at 0.75. In this research, the Cronbach  $\alpha$  coefficient for the DII was 0.81.

### Data analysis

The Mean $\pm$ SD, and correlation coefficients of the obtained data were calculated in SPSS software, version 26. In addition, the proposed model's goodness of fit was evaluated using SEM in AMOS software, version 24. To determine the adequacy of the proposed model's fit with the data, the suitability of the proposed model was determined using a combination of suitability measures.

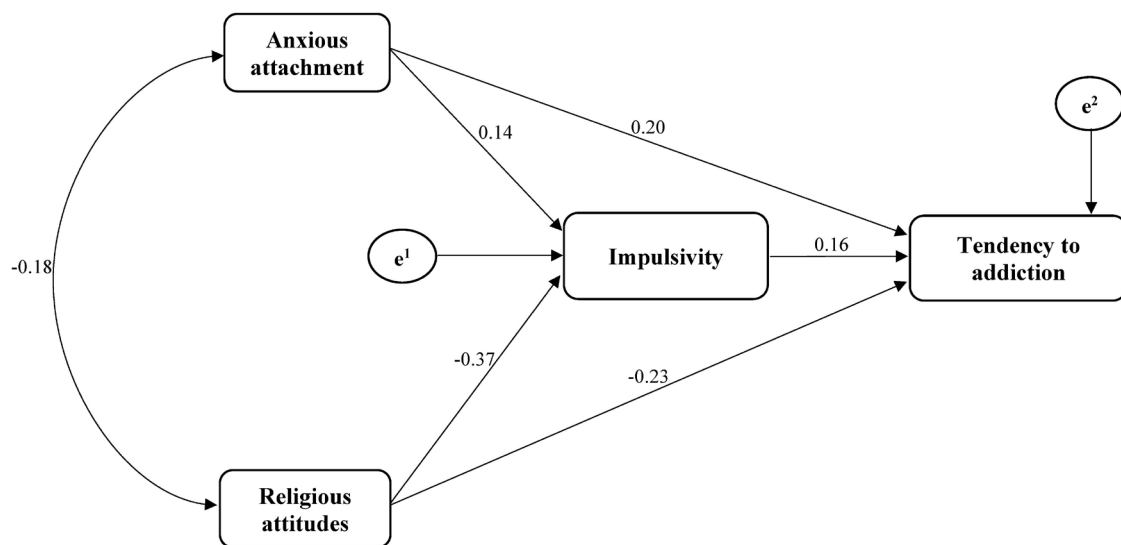
## Results

Table 1 presents the descriptive results of this study, i.e. Mean $\pm$ SD and correlation matrix between variables. As shown in Table 1, the mean scores of the tendency to addiction, anxious attachment, religious attitudes, and im-

**Table 1.** Mean $\pm$ SD and correlation matrix between variables

Variables	Mean $\pm$ SD	Min	Max	1	2	3	4
1- Tendency to addiction	108.28 $\pm$ 9.03	60	128	1			
2- Anxious attachment	68.18 $\pm$ 24.02	22	105	0.46**	1		
3- Religious attitudes	76.05 $\pm$ 23.50	30	128	-0.56**	-0.40**	1	
4 Impulsivity	32.06 $\pm$ 4.42	23	43	0.41**	0.29**	-0.43**	1

\*\*P<0.01.



**Figure 1.** The proposed model of the research

pulsivity were  $108.28 \pm 9.03$ ,  $68.18 \pm 24.02$ ,  $76.05 \pm 23.50$ , and  $32.06 \pm 4.42$ , respectively.

As shown in Table 1, there was a positive and significant correlation between the tendency to addiction and anxious attachment ( $r=0.46$ ,  $P<0.01$ ). Moreover, there was a positive and significant correlation between the tendency to addiction and impulsivity in university students ( $r=0.41$ ,  $P<0.01$ ). There was a negative and significant correlation between the tendency to addiction and religious attitudes ( $r=-0.56$ ,  $P<0.01$ ).

The model proposed for the relationships between anxious attachment and religious attitudes with the tendency to addiction was tested using SEM. The proposed model consisted of 5 variables: Anxious attachment and religious attitudes as the predictor (independent) variables, tendency to addiction as the criterion (dependent) variable, and impulsivity as the mediating variable (Figure 1). The fit of the proposed model with the research data was measured using the goodness of fit indices such as chi-square, goodness of fit index (GFI), adjusted goodness of fit index (AGFI), incremental fit index (IFI),

**Table 2.** Proposed model fit indicators

Fit Indicators	$\chi^2$	df	$\chi^2/df$	GFI	AGFI	IFI	TLI	CFI	NFI	RMSEA
Proposed model	9.30	3	3.10	0.99	0.93	0.98	0.93	0.98	0.98	0.074

Abbreviations: GFI: Goodness of fit index; AGFI: Adjusted goodness of fit index; IFI: Incremental fit index; TLI: Tucker-Lewis index; CFI: Comparative fit index; NFI: Normed fit index; RMSEA: Root mean squared error of approximation.

**Table 3.** Path coefficients of direct relationship between research variables in the proposed model

Path	$\beta$	P
Anxious attachment → Impulsivity	0.14	0.012
Religious attitudes → Impulsivity	-0.37	0.001
Anxious attachment → Tendency to addiction	0.20	0.001
Religious attitudes → Tendency to addiction	-0.23	0.001
Impulsivity → Tendency to addiction	0.16	0.001

**Table 4.** Path coefficients of indirect relationship between research variables

Path		$\beta$	P
Anxious attachment	Tendency to addiction through impulsivity	0.087	0.001
Family health	Tendency to addiction through impulsivity	-0.088	0.001



Tucker–Lewis index (TLI), comparative fit index (CFI), and normed fit index (NFI) (Table 2). The statistically significant value of chi-square demonstrated a significant difference between the assumed and observed covariances. In these indices, a value of 0.9 or higher is considered acceptable. Another index measured in this study was the root mean squared error of approximation (RMSEA); values <0.08 are considered acceptable. As shown in Table 2, the proposed model fits the research data well.

Table 3 presents the proposed model's structural model, paths, and standard coefficients. Based on the results, there was a direct and significant relationship between all variables ( $P < 0.05$ ). The bootstrap method was employed to examine the significance of mediating relationships. The results demonstrated that all mediating paths were statistically significant ( $P < 0.001$ ) (Table 4). It can be hence concluded that impulsivity mediates the relationships between anxious attachment and religious attitudes with the tendency to addiction.

## Discussion

The present study aimed to investigate the mediating role of impulsivity in the relationship between anxious attachment and spiritual attitude with the tendency to addiction among university students. The results showed a significant positive relationship between anxious attachment and the tendency to addiction. Consistent with our research findings, Dostanic et al. [29] reported that the tendency to alcoholism in men is related to depression and anxiety. Moreover, Azimi et al. [30] reported that there was a positive and significant relationship between anxiety and the tendency to online gambling addiction in adolescents. Schindler [5] found that some personality traits increase the risk of and tendency to drug addiction. Anxiety, depression, and stress are common personality traits among individuals with substance abuse disorders. The security provided by attachment is the most important characteristic of relationships throughout life, and the first relationship serves as a model for future social relationships [29]. Sensitive and responsive care acts as

a safe haven by providing people with comfort, support, and protection and assisting them in developing positive models of themselves and others. Inappropriate care, on the other hand, is associated with anxiety, anger, denial of independence, and suppression of needs. Feizollahi et al. [31] reported that attachment relationships result in the growth of active internal patterns containing information about oneself, others, and the relationships between oneself and others. These patterns shape one's performance and personality traits throughout their lives. Individuals with an anxious attachment style have a compulsive desire to be close to others and are extremely sensitive to signs of rejection and abandonment [31]. Such individuals have a negative self-image and positive images of others. Because of inefficient interpersonal relationships and a lack of a sense of empowerment, individuals with an anxious attachment style experience more tension and may seek relief through drug abuse [30].

The results also revealed a significant inverse relationship between religious attitudes and the tendency to addiction. Consistent with the findings of the present study, Dermatis and Galanter [32] reported that the religious attitude, including the feeling of God's daily presence and believing in a higher power as a universal spirit, has a positive role in the treatment of substance abuse. Villani et al. [14] reported that spirituality, faith in God, and belief in the source of truth and superhuman power are the only ways to remove or neutralize the experienced pains and discomforts from the human body. They have shown an interest in investigating spirituality and religion in psychiatric disorders and social injuries, and have paid attention to this factor in research and treatment. Youzbashi et al. [16] showed that there is a relationship between peace of body and mind and having a divine and religious attitude, and that being disconnected from God and spirituality is accompanied by vulnerability. It seems that religious attitudes influence human behavior. Pourkord et al. [10] concluded that religious beliefs improve health status, quality of life, and self-esteem. Moreover, they are considered among the factors that can play a major role in preventing and reducing mental disorders as well as their consequences, such as suicidal ideation,



drug addiction, depression, and anxiety. Therefore, strong religious beliefs can serve as a preventive measure for reducing mental disorders throughout life.

Another study finding demonstrated the mediating effects of impulsivity on the tendency to addiction. Studies have shown the significant effect of impulsivity on the tendency to addiction [33]. To explain this study finding, it can be hence stated that the more impulsive a person is, the stronger their tendency to drug abuse will be because impulsive individuals do not consider the consequences of their actions and lack patience and tolerance for inappropriate behavior [19]. Haeny et al. [33] report that there was a positive association between impulsivity and alcohol quantity and frequency of use. An impulsive person takes risks without considering the consequences and acts without thinking, focusing only on fleeting pleasure and achieving short-term rewards. As a result, such individuals are prone to drug addiction because they focus on the short-term consequences of drug use, which are fleeting pleasures, rather than the long-term consequences, which are serious and exhausting.

Similar to other research projects, this study faced some limitations. For instance, since this study was conducted on students at the [Islamic Azad University of Ahvaz](#), the results should be cautiously generalized to other populations. On the other hand, the data collection method in this research was self-reported, which can be affected by disturbing variables such as not providing honest answers or trying to present a different image of oneself.

## Conclusion

The study results suggested that impulsivity mediated the relationship between anxious attachment and religious attitudes with the tendency to addiction. The results of this study can serve as a basis for developing educational, preventive, and therapeutic programs for reducing the tendency of young people and vulnerable groups to addiction. Considering the study findings that indicate the effects of religious attitudes on the tendency to addiction, it is suggested that necessary efforts be made to improve young people's religious beliefs. In addition, religious and spiritual tendencies are recommended to be included in the life skills training programs of universities.

## Ethical Considerations

### Compliance with ethical guidelines

The study was approved by the Ethics Committee of [Islamic Azad University, Ahvaz Branch](#) (Code: IR.IAU.

AHVAZ.REC.1400.039). Written informed consent was obtained from the students.

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### Authors' contributions

All authors equally contributed to preparing this article.

### Conflict of interest

The authors declared no conflict of interest.

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## References

- [1] Spencer AE, Valentine SE, Sikov J, Yule AM, Hsu H, Hallett E, et al. Principles of care for young adults with co-occurring psychiatric and substance use disorders. *Pediatrics*. 2021; 147(Suppl 2):229-39. [DOI:10.1542/peds.2020-023523F] [PMID] [PMCID]
- [2] Vujanovic AA, Smith LJ, Green C, Lane SD, Schmitz JM. Mindfulness as a predictor of cognitive-behavioral therapy outcomes in inner-city adults with posttraumatic stress and substance dependence. *Addict Behav*. 2020; 104:106283. [DOI:10.1016/j.addbeh.2019.106283] [PMID] [PMCID]
- [3] Wu LT, McNeely J, Subramaniam GA, Brady KT, Sharma G, VanVeldhuisen P, et al. DSM-5 substance use disorders among adult primary care patients: Results from a multisite study. *Drug Alcohol Depend*. 2017; 179:42-46. [DOI:10.1016/j.drugalcdep.2017.05.048] [PMID] [PMCID]
- [4] Armani kian A, Fathi M, Moeen Z, Rostami B, Safavi SZA, Fakour E. [Relationship of tendency towards substance abuse with spiritual and psychological well-being in students of Zanjan University of Medical Sciences (Persian)]. *Health Spirit Med Ethics*. 2020; 7(2):59-67. [DOI:10.29252/jhsme.7.2.59]
- [5] Schindler A. Attachment and substance use disorders-theoretical models, empirical evidence, and implications for treatment. *Front Psychiatry*. 2019; 10:727. [DOI:10.3389/fpsy.2019.00727] [PMID] [PMCID]
- [6] Sheinbaum T, Kwapil TR, Ballespí S, Mitjavila M, Chun CA, Silvia PJ, et al. Attachment style predicts affect, cognitive appraisals, and social functioning in daily life. *Front Psychol*. 2015; 6:296. [DOI:10.3389/fpsyg.2015.00296] [PMID] [PMCID]

- [7] Darban F, Safarzai E, Koohsari E, Kordi M. Does attachment style predict quality of life in youth? A cross-sectional study in Iran. *Health Psychol Res.* 2020; 8(2):8796. [DOI:10.4081/hpr.2020.8796] [PMID] [PMCID]
- [8] Sagone E, Commodari E, Indiana ML, La Rosa VL. Exploring the association between attachment style, psychological well-being, and relationship status in young adults and adults-a cross-sectional study. *Eur J Investig Health Psychol Educ.* 2023; 13(3):525-39. [DOI:10.3390/ejihpe13030040] [PMID] [PMCID]
- [9] Suzuki H, Tomoda A. Roles of attachment and self-esteem: Impact of early life stress on depressive symptoms among Japanese institutionalized children. *BMC Psychiatry.* 2015; 15:8. [DOI:10.1186/s12888-015-0385-1] [PMID] [PMCID]
- [10] Pourkord M, Mirdrikvand F, Karami A. [Predicting resilience in students based on happiness, attachment style, and religious attitude (Persian)]. *Health Spiritual Med Ethics.* 2020; 7(2):27-34. [DOI:10.29252/jhsme.7.2.27]
- [11] Chen Z, Jiang Y, Chen M, Baiyila N, Nan J. Resilience as a mediator of the association between spirituality and self-management among older people with chronic obstructive pulmonary disease. *Healthcare.* 2021; 9(12):1631. [DOI:10.3390/healthcare9121631] [PMID] [PMCID]
- [12] Paran M, Akbarzadeh M, Heydari N. [Relationship between religious attitude and patience in nursing and midwifery students in Shiraz, Iran, in 2015 (Persian)]. *Health Spiritual Med Ethics.* 2020; 7(4):50-7. [DOI:10.52547/jhsme.7.4.50]
- [13] Dillard V, Moss J, Padgett N, Tan X, Kennedy AB. Attitudes, beliefs and behaviors of religiosity, spirituality, and cultural competence in the medical profession: A cross-sectional survey study. *Plos One.* 2021; 16(6):e0252750. [DOI:10.1371/journal.pone.0252750] [PMID] [PMCID]
- [14] Villani D, Sorgente A, Iannello P, Antonietti A. The role of spirituality and religiosity in subjective well-being of individuals with different religious status. *Front Psychol.* 2019; 10:1525. [DOI:10.3389/fpsyg.2019.01525] [PMID] [PMCID]
- [15] Salmabadi M, Farooq Sadeghbojd M, Farshad MR, Zolfaghari S. Comparing the spiritual health and quality of life in addicted and non-addicted patients in the city of Birjand, Iran. *Int J High Risk Behav Addict.* 2016; 5(1):e23208. [DOI:10.5812/ijhrba.23208] [PMID] [PMCID]
- [16] Youzbashi M, Safaei Fakhri L, Mousavi S. Investigation of religious attitudes and impulsivity in addicts and normal individuals. *Health Spiritual Med Ethics.* 2020; 7(3):17-24. [DOI:10.52547/jhsme.7.3.17]
- [17] Alihossien Maslak L, Kiani G. The effect of teaching cognitive emotion regulation strategy on the tendency to addiction and impulsivity in the children of addicts in Zanjan: A randomized educational trial study. *J Rafsanjan Univ Med Sci.* 2021; 20(7):783-800. [DOI:10.52547/jrums.20.7.783]
- [18] Kozak K, Lucatch AM, Lowe DJE, Balodis IM, MacKillop J, George TP. The neurobiology of impulsivity and substance use disorders: Implications for treatment. *Ann N Y Acad Sci.* 2019; 1451(1):71-91. [DOI:10.1111/nyas.13977] [PMID] [PMCID]
- [19] Lee RSC, Hoppenbrouwers S, Franken I. A Systematic meta-review of impulsivity and compulsivity in addictive behaviors. *Neuropsychol Rev.* 2019; 29(1):14-26. [DOI:10.1007/s11065-019-09402-x] [PMID]
- [20] Argyriou E, Um M, Carron C, Cyders MA. Age and impulsive behavior in drug addiction: A review of past research and future directions. *Pharmacol Biochem Behav.* 2018; 164:106-17. [DOI:10.1016/j.pbb.2017.07.013] [PMID] [PMCID]
- [21] Kline RB. *Principles and practice of structural equation modeling.* New York: Guilford Publications; 1998. [Link]
- [22] Weed NC, Butcher JN, McKenna T, Ben-Porath YS. New measures for assessing alcohol and drug abuse with the MMPI-2: The APS and AAS. *J Pers Assess.* 1992; 58(2):389-404. [DOI:10.1207/s15327752jpa5802\_15] [PMID]
- [23] Shafikhani M, Bagherian F, Shokri O. [On the relationship of time perspective with tendency to substance abuse in female adolescents (Persian)]. *Res Addict.* 2016; 10(38):11-24. [Link]
- [24] Brennan KA, Clark CL, Shaver PR. Self-report measurement of adult attachment: An integrative overview. In: Simpson JA, Rholes WS, editors. *Attachment theory and close relationships.* New York: Guilford Press; 1998. [Link]
- [25] Panaghi L, Maleki G, Zabihzadeh A, Poshtmashhadi M, Soltaninezhad Z. [Validity, reliability, and factor analysis of experiences in close relationship (ECR) scale (Persian)]. *Iran J Psychiatry Clin Psychol.* 2014; 19(4):305-13. [Link]
- [26] Khodayari Fard M, Shokohi Yekta M, Ghobari Bonab B. [Preparation of students' religious attitude scale (Persian)]. *J Psychol.* 2011; 4(3):268-85. [Link]
- [27] Dickman S. Impulsivity and perception: Individual differences in the processing of the local and global dimensions of stimuli. *J Pers Soc Psychol.* 1985; 48(1):133-49. [DOI:10.1037/0022-3514.48.1.133] [PMID]
- [28] Ekhtiari H, Safaei H, Esmaeeli Djavid G, Atefvahid MK, Edalati H, Mokri A. Reliability and validity of Persian versions of Eysenck, Barratt, Dickman and Zuckerman questionnaires in assessing risky and impulsive behaviors. *Iran J Psychiatry Clin Psychol.* 2008; 14(3):326-36. [Link]
- [29] Dostanic N, Djikanovic B, Jovanovic M, Stamenkovic Z, Đeric A. The association between family violence, depression and anxiety among women whose partners have been treated for alcohol dependence. *J Fam Violence.* 2022; 37(2):313-24. [DOI:10.1007/s10896-020-00238-1] [PMID] [PMCID]
- [30] Azimi A, Niknam M, Hashemi M. The mediating role of metacognition with attachment and online gaming addiction in adolescence. *J Res Psychol Health.* 2022; 16(1):1-15. [Link]
- [31] Feizollahi Z, Asadzadeh H, Mousavi SR. Prediction of symptoms of psychosomatic disorders in university students based on perfectionism mediated by smartphone addiction. *Caspian J Health Res.* 2022; 7(3):151-8. [DOI:10.32598/CJHR.7.3.421.1.7]
- [32] Dermatis H, Galanter M. The role of twelve-step-related spirituality in addiction recovery. *J Relig Health.* 2016; 55(2):510-21. [DOI:10.1007/s10943-015-0019-4] [PMID]
- [33] Haeny AM, Gueorguieva R, Morean ME, Krishnan-Sarin S, DeMartini KS, Pearson GD, et al. The association of impulsivity and family history of alcohol use disorder on alcohol use and consequences. *Alcohol Clin Exp Res.* 2020; 44(1):159-67. [DOI:10.1111/acer.14230] [PMID] [PMCID]

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