Avicenna Journal of Neuro Psycho Physiology

doi: 10.32592/ajnpp.2025.12.1.53 2025 July;12(1): 53-58 https://ajnpp.umsha.ac.ir

Original Article

Predicting Addiction Propensity Based on Familial Emotional Climate, Difficulties in Emotion Regulation, and Distress Tolerance among University Students

Khadijeh Dashtbozorg[1], Fatemeh Sadat Marashian[1]*

1. Department of Psychology, Ahv.C., Islamic Azad University, Ahvaz, Iran

***Corresponding author:**
Fatemeh Sadat Marashian, Department of Psychology, Ahv.C., Islamic Azad University, Ahvaz, Iran
Tel: +98(61)33348420
Email: fsmarashian@iau.ac.ir

Received: 20 May 2025
Accepted: 7 July 2025
ePublished: 19 July 2025

Abstract

Background and Objective: Understanding the psychological vulnerabilities of university students, particularly in relation to familial emotions and self-regulation, is crucial for informing addiction prevention efforts. The present study aimed to assess the predictive power of familial emotional climate, difficulties in emotion regulation, and distress tolerance concerning the likelihood of addiction among university students.

Materials and Methods: Employing a descriptive correlational design, this research investigated a sample of 168 students from Islamic Azad University, Ahvaz (Iran), selected via convenience sampling. Data on addiction potential, family emotional climate, emotion regulation difficulties, and distress tolerance were gathered using the established scales. Subsequent analysis involved descriptive statistics, Pearson correlations, and stepwise regression to explore the relationships between these variables among the university student population.

Results: This study examined the relationship of familial emotional climate, difficulties in emotion regulation, and distress tolerance with addiction propensity among university students. Significant correlations were observed: a negative association between familial emotional climate and addiction propensity ($r=-0.59$; $P<0.001$), a positive association between difficulties in emotion regulation and addiction propensity ($r=0.50$; $P<0.001$), and a negative association between distress tolerance and addiction propensity ($r=-0.49$; $P<0.001$). Stepwise regression analysis revealed that familial emotional climate explained 34% of the variance in addiction propensity. The addition of difficulties in emotion regulation increased the explained variance to 47%, and the subsequent inclusion of distress tolerance further accounted for 49% of the variance.

Conclusion: This study robustly demonstrated that familial emotional climate, emotion regulation difficulties, and distress tolerance significantly predict addiction propensity in university students. These findings emphasize the necessity of incorporating family dynamics and emotional processing into targeted prevention and intervention strategies.

Keywords: Addiction, Distress tolerance, Emotions, Family, Students

Background

Addiction constitutes a salient public health concern, notably affecting university students during a critical developmental period characterized by increased autonomy and exposure to diverse stressors [1]. The prevalence of both substance use and behavioral addictions, including problematic internet use and gambling, has been escalating within this demographic, with research suggesting that approximately 20%-30% of university students report engaging in risky substance use behaviors [2]. The transition to university frequently entails navigating academic pressures, social integration, and the formation of personal identity, the factors that can amplify susceptibility to addiction. Furthermore, the psychological and social determinants of addiction propensity are multifaceted, involving intricate interactions between individual characteristics and environmental contexts [3]. A comprehensive understanding of these determinants is paramount for the development of targeted interventions aimed at reducing addiction risks among university students, a population particularly vulnerable due to their specific developmental stage and situational circumstances [4].

The familial emotional climate, encompassing the prevailing emotional tone and the nature of interpersonal exchanges within a family system, exerts a marked impact on the development of individuals' psychological resilience and their susceptibility to maladaptive behaviors, including addiction [5]. A supportive familial emotional climate, characterized by warmth, transparent communication, and emotional cohesion, has been consistently linked to decreased risks of both

substance use and behavioral addictions [6]. On the contrary, a negative familial emotional climate—distinguished by conflict, emotional neglect, or inconsistent parenting practices—can amplify vulnerability to addiction by promoting emotional dysregulation and adopting maladaptive coping strategies [7]. Contemporary research underscores the significant predictive capacity of family dynamics regarding substance use outcomes in young adults, with dysfunctional family environments contributing to elevated stress levels and diminished emotional security [8]. For university students, who may experience physical separation from their families yet remain subject to established emotional patterns, the familial emotional climate persists as a salient determinant of their psychological adjustment and addiction propensity [9].

Difficulties in emotion regulation, defined as impairments in effectively managing and responding to emotional experiences, are increasingly acknowledged as a critical risk factor for addiction [10]. These difficulties encompass such daunting challenges as an inability to modulate intense emotions, a limited repertoire of adaptive coping strategies, and diminished emotional awareness [11]. The recent studies have consistently demonstrated that individuals exhibiting greater emotion regulation deficits are more prone to engagement in substance use as a maladaptive means of alleviating negative affect [12]. Within the university student population, who frequently encounter stressors, such as academic demands and social pressures, these deficits can amplify vulnerability to addiction. For instance, a longitudinal study revealed that emotion regulation difficulties mediated the association between stress and problematic alcohol consumption among college students [13]. These findings underscore the significant role of emotion regulation as a psychological mechanism mediating the pathway from environmental stressors to addiction outcomes [14].

Distress tolerance, defined as the perceived or actual capacity to endure negative emotional or physical states, represents another crucial determinant of addiction propensity [15]. Diminished distress tolerance is associated with a strong inclination to seek immediate relief through substance use or other addictive behaviors as a means of escaping aversive emotional experiences [16]. Research indicates that university students exhibiting low distress tolerance face an elevated risk of developing substance use disorders, as they possess fewer resources to manage emotional discomfort without resorting to maladaptive coping mechanisms [17]. A recent meta-analysis corroborated the negative correlation between distress tolerance and addiction severity, with lower tolerance levels predicting a greater reliance on substances to manage distress [18]. For university students, who frequently encounter novel and intense stressors, distress tolerance functions as a protective factor against the development of addictive behaviors, underscoring its relevance for prevention initiatives [19].

Despite the expanding literature on addiction, a need persists to integrate familial and individual psychological determinants for a comprehensive understanding of addiction propensity among university students. Although prior investigations have examined these factors in isolation, fewer studies have explored their combined predictive capacity within a unified framework, particularly in non-Western settings. The interaction among familial emotional climate, difficulties in emotion regulation, and distress tolerance likely exerts a synergistic influence on addiction risk; nonetheless, empirical evidence regarding their relative contributions remains limited. Addressing this gap is essential for informing evidence-based interventions that target both family dynamics and individual emotional competencies. Moreover, the cultural and developmental specificities of university students necessitate context-sensitive research to ensure the generalizability of findings across diverse populations.

Objectives

In light of the aforementioned issues, the current study sought to assess the predictive power of familial emotional climate, difficulties in emotion regulation, and distress tolerance concerning the likelihood of addiction among university students.

Materials and Methods

This study adopted a descriptive, correlational design to investigate addiction propensity (criterion variable) as predicted by familial emotional climate, difficulties in emotion regulation, and distress tolerance (predictor variables). The target population consisted of all students aged 18 to 25 years enrolled at the Islamic Azad University, Ahvaz branch, during the 2023 academic year. Participants (n=168) were recruited using convenience sampling from the 180 distributed questionnaires, after excluding incomplete or spoiled submissions. The inclusion criteria mandated current enrollment at the specified university during the study period and being within the 18-25 age range. On the other hand, the exclusion criteria encompassed questionnaires with more than 10% unanswered items, indications of random or insincere responses, or participants with a documented clinical diagnosis of substance use disorder.

Instruments

Addiction Potential Scale (APS)

The APS, originally developed by Weed et al. [20], comprises 41 items, including 36 core items and 5 lie detection items, designed to assess an individual's propensity for addiction. Responses are rated on a 4-point Likert scale, ranging from 0 (strongly disagree) to 3 (strongly agree), with total scores ranging from 0-180. Higher scores reflect a greater predisposition to addictive behaviors. Shafikhani et al. [21] reported a reliability coefficient of 0.83 for this scale. In the present study, the APS illustrated strong internal consistency, with a Cronbach's alpha of 0.78.

Family Emotional Climate Questionnaire (FECQ)

The FECQ, developed by Hill Burn, was employed to evaluate the emotional environment within families. This measure includes 16 items organized into eight subscales (love, caress, affirmation, shared experiences, gift-giving, encouragement, trust, and sense of security), with each subscale comprising two items. Participants respond using a 5-point Likert scale (1 = very low to 5 = very high), indicating their perceptions of the family emotional climate. The FECQ has exhibited strong internal consistency, with Yousefi and Pariyad [22] reporting a Cronbach's alpha of 0.94. In the current study, the questionnaire exhibited satisfactory reliability, yielding a Cronbach's alpha of 0.86.

Cognitive Emotion Regulation Questionnaire (CERQ)

The CERQ, developed by Garnefski and Kraaij [23], is a 36-item instrument designed to assess cognitive emotion regulation strategies. These strategies are categorized into adaptive and maladaptive types. Adaptive strategies include subscales, such as putting into perspective, positive refocusing, positive reappraisal, acceptance, and planning, while maladaptive strategies encompass self-blame, other-blame, rumination, and catastrophizing. Responses are rated based on a 5-point Likert scale (1 = never, 2 = sometimes, 3 = usually, 4 = often, 5 = always). The reliability of the CERQ was established by Abdi et al. [24], who reported a Cronbach's alpha of 0.82. In the current study, the CERQ exhibited robust internal consistency, with a Cronbach's alpha of 0.80.

Distress Tolerance Scale (DTS)

The DTS, developed by Simons and Gaher in 2005, is a 15-item self-report measure designed to evaluate an individual's capacity to tolerate emotional distress. The scale is organized into four subscales: tolerance, absorption, appraisal, and regulation. The items are rated based on a 5-point Likert scale (1 = Strongly Agree to 5 = Strongly Disagree), with item 6 being reverse-scored. Total scores range from 15 to 75, where higher scores indicate greater distress tolerance [25]. The Persian version of the DTS, validated by Azizi [26] in Iran, demonstrated acceptable internal consistency, with subscale reliability coefficients ranging from 0.74 to 0.85. In the present study, the DTS illustrated strong internal consistency, with a Cronbach's alpha of 0.85.

Data analysis

The collected data were subjected to analysis using both descriptive statistics, including means and standard deviations, and inferential statistics, namely Pearson's correlation coefficient and stepwise regression. All statistical procedures were performed using SPSS software (version 27). The threshold for statistical significance was established at $P<0.05$.

Results

The study sample comprised 168 students within the age range of 18-25 years. These participants, recruited through convenience sampling, were primarily undergraduate students (78%) and exhibited a gender distribution of 54% female and 46% male. The majority of participants (62%) reported hailing from urban backgrounds, and approximately 85% indicated living away from their parental homes, residing in either university dormitories or independent accommodations.

Table 1 presents descriptive statistics (means and standard deviations) for the study variables alongside the Pearson correlation coefficients examining the relationships between addiction propensity and the predictor variables. The correlation analysis revealed significant associations between addiction propensity and all predictor variables. Specifically, familial emotional climate demonstrated a strong, negative correlation with addiction propensity ($r=-0.59$; $P<0.001$), indicating an inverse relationship where a more positive familial emotional environment corresponded with lower addiction propensity. Conversely, difficulties in emotion regulation exhibited a significant positive correlation with addiction propensity ($r=0.50$; $P<0.001$), suggesting that greater challenges in managing emotions were associated with increased addiction risk. Finally, distress tolerance displayed a significant negative correlation with addiction propensity ($r=-0.49$; $P<0.001$), implying that a higher capacity to tolerate distress was associated with a reduced likelihood of addiction.

Table 1. Descriptive statistics and correlation matrix for study variables

Variables	Mean	SD	Addiction propensity (r, P)
Addiction propensity	43.21	9.58	1
Familial emotional climate	50.27	13.01	r=-0.59, P<0.001
Difficulties in emotion regulation	104.48	22.80	r=0.50, P<0.001
Distress tolerance	47.33	14.91	r=-0.49, P<0.001

**: P< 0.01

To ascertain the predictive capacity of familial emotional climate, difficulties in emotion regulation, and distress tolerance regarding addiction propensity, a stepwise multiple regression analysis was performed. The outcomes of this analysis are summarized in Table 2, which presents the regression coefficients, multiple correlation coefficients (MR), coefficients of determination (R^2), F-statistics, and significance levels for each step of the model.

Table 2. Stepwise multiple regression analysis predicting addiction propensity

Step	Predictor(s)	R	R^2	Adjusted R^2	F	P	ΔR^2
1	Familial emotional climate	0.59	0.34	0.34	65.11	0.001	0.34
2	Familial emotional climate, Difficulties in emotion regulation	0.69	0.47	0.47	41.32	0.001	0.13
3	Familial emotional climate, Difficulties in emotion regulation, Distress tolerance	0.71	0.50	0.49	30.67	0.001	0.02

In the initial step, with familial emotional climate as the sole predictor, 34.2% of the variance in addiction propensity was explained (R^2=0.34, F=65.11; P <0.001). The introduction of difficulties in emotion regulation in the second step significantly increased the explained variance to 47.4% (R^2=0.47, F=41.32; P<0.001). Finally, the inclusion of distress tolerance in the third step further augmented the explained variance to 49.7% (R^2=0.50, F=30.67, P <0.001). The standardized regression coefficients (β) in the final model revealed that familial emotional climate (β=−0.39), difficulties in emotion regulation (β=0.52), and distress tolerance (β=−0.45) were all significant predictors of addiction propensity (P<0.001 for each). These findings collectively indicate that the combination of these three psychological factors accounts for a substantial proportion of the variance in addiction propensity within the studied university student population.

Discussion

This research assessed the predictive capacity of familial emotional climate, difficulties in emotion regulation, and distress tolerance regarding the likelihood of addiction within a university student population. The findings pointed to an inverse relationship between a positive familial emotional climate and addiction propensity among this demographic, underscoring the protective impact of a supportive family environment. Specifically, a nurturing family atmosphere characterized by emotional warmth, trust, and open communication appears to cultivate resilience against addictive behaviors, potentially by establishing a stable emotional foundation that reduces reliance on maladaptive coping strategies. This observation is consistent with prior studies emphasizing the crucial role of family dynamics in addiction prevention. For example, Moore et al. [27] demonstrated that cohesive family environments diminish the likelihood of substance use in young adults by enhancing emotional security. In the same vein, Barrett and Turner [28] reported that dysfunctional family climates, marked by conflict and emotional neglect, elevate addiction vulnerability, further supporting the protective effect of positive familial interactions identified in the current study.

Furthermore, this research highlighted the positive association between difficulties in emotion regulation and addiction propensity, indicating that challenges in managing emotional experiences elevate the risk of addictive behaviors. University students who struggle to modulate intense emotions or utilize adaptive coping mechanisms may resort to substances or compulsive behaviors as a maladaptive strategy to alleviate negative affect. This finding aligns with established literature on emotion regulation and addiction. For instance, Stellern et al. [10] reported that deficits in emotion regulation mediate the relationship between stress and problematic alcohol use among college students, supporting the premise that emotional dysregulation contributes to addiction risk. Moreover, a meta-analysis by Rahbarian et al. [29] confirmed that poor emotion regulation is a significant predictor of addiction outcomes, underscoring the importance of interventions aimed at enhancing emotional regulation skills within university settings.

Another significant finding of this study was the negative association between distress tolerance and addiction propensity, indicating that a greater capacity to withstand emotional discomfort diminishes the likelihood of engaging in addictive behaviors. University students with higher distress tolerance appear better equipped to navigate stressors without resorting to substances or other addictive outlets, suggesting that this capacity functions as a psychological buffer against addiction. This finding is consistent with recent research on distress tolerance. For example, Mattingley et al. [30] reported that low distress tolerance is associated with increased addiction severity, as individuals seek immediate relief from aversive emotional states. Furthermore, Vujanovic et al. [31] demonstrated that distress tolerance mitigates substance use risk among young adults experiencing stress, highlighting its protective role within the context of university students facing academic and social pressures.

The regression analysis revealed that familial emotional climate, difficulties in emotion regulation, and distress tolerance collectively constitute a robust predictive model for addiction propensity, with each factor contributing incrementally to the explanation of addiction risk. This integrative model suggests a synergistic interplay among these psychosocial factors, wherein family environment and individual emotional competencies interact to shape an individual's vulnerability to addiction. These results are consistent with prior research underscoring the combined effect of family and individual factors. For instance, Horigian et al. [32] found that family dynamics and emotional competencies jointly predict substance use outcomes in young adults, while Zaorska et al. [33] highlighted the interactive roles of emotion regulation and distress tolerance in problematic alcohol use. These findings advocate for the development of comprehensive prevention strategies that address both familial and individual-level factors to effectively mitigate addiction risk within university student populations.

Despite the valuable contributions of this study, certain limitations warrant consideration. Firstly, the utilization of convenience sampling may constrain the generalizability of the findings, as the recruited sample may not fully represent the heterogeneity of university student populations, particularly those from diverse cultural or socioeconomic backgrounds. Secondly, the cross-sectional design inherent in this research precludes the establishment of causality, as the observed associations may reflect reciprocal influences necessitating longitudinal investigations for clarification. Future research endeavors should employ randomized sampling techniques and longitudinal methodologies to enhance the robustness and broader applicability of these findings.

Conclusion

This research robustly establishes the significant predictive roles of familial emotional climate, difficulties in emotion regulation, and distress tolerance in determining addiction propensity among university students. The significant correlations identified highlight the protective effect of a supportive familial emotional climate and the increased risk linked to challenges in emotion regulation and reduced distress tolerance. Stepwise regression analysis further reveals that these psychosocial factors collectively explain 49% of the variance in addiction propensity, with each variable contributing incrementally to the model. These results emphasize the critical need to integrate family dynamics and individual emotional regulation capacities into the design of targeted prevention and intervention programs to reduce addiction vulnerability in university student populations.

Ethical Considerations

Participants were required to review and sign a written informed consent form prior to their involvement in the study, provided they agreed to participate. The research was approved by the Ethics Review Board of the Islamic Azad University, Ahvaz Branch (Approval No. IR.IAU.AHVAZ.REC.1403.406).

Acknowledgments

The authors extend their heartfelt appreciation to all participants for their valuable contributions to this study.

Authors' Contributions

All authors contributed to the drafting and revision of the manuscript and are accountable for its accuracy.

Funding/Support

No specific funding was received from public, commercial, or not-for-profit entities for this study.

Conflicts of Interest

The authors confirm they have no conflicts of interest to disclose.

References

1. Pasman E, Blair L, Solberg MA, McCabe SE, Schepis T, Resko SM. The substance use disorder treatment gap among US college students: Findings from the 2021 national survey on drug use and health. Drug Alcohol Depend Rep. 2024;12:100279. [DOI: 10.1016/j.dadr.2024.100279] [PMID] [PMCID]
2. Schlam TR, Baker TB, Smith SS, Cook JW, Piper ME. Anxiety sensitivity and distress tolerance in smokers: relations with tobacco dependence, withdrawal, and quitting success. Nicotine Tob Res. 2020;22(1):58-65. [DOI: 10.1093/ntr/ntz070] [PMID] [PMCID]
3. Rasheed S M A, Mishra L K, Tiwari G K. Internet addiction and its relationship with the need for cognition among law and Unani

medical students in Calicut, India. Avicenna J Neuro Psycho Physiology. 2024;11(1):12-18. [DOI:10.32592/ajnpp.2024.11.1.102]
4. Paul FA, Rehman GAU, and Dar DR. Substance use in university students: a comprehensive examination of its effects on academic achievement and psychological well-being. Soc Work Mental Health. 2024;22(3):452-84. [DOI:10.1080/15332985.2024.2306935]
5. Kapetanovic S, Skoog T. The Role of the family's emotional climate in the links between parent-adolescent communication and adolescent psychosocial functioning. Res Child Adolesc Psychopathol. 2021;49(2):141-54. [DOI: 10.1007/s10802-020-00705-9] [PMID] [PMCID]
6. Saladino V, Mosca O, Petruccelli F, Hoelzlhammer L, Lauriola M, Verrastro V, et al. The vicious cycle: problematic family relations, substance abuse, and crime in adolescence: a narrative review. Front Psychol. 2021;12:673954. [DOI: 10.3389/fpsyg.2021.673954] [PMID] [PMCID]
7. Kim Y, Dhammasaccakarn W, Laeheem K, Rinthaisong I. Exploring associative relationships: Family functions, anxiety, and fear of missing out as predictors of smartphone addiction among Thai adolescents. Acta Psychologica. 2024;250:104570. [DOI: 10.1016/j.actpsy.2024.104570] [PMID]
8. Hamza EGA, Gladding S, Moustafa AA. The impact of adolescent substance abuse on family quality of life, marital satisfaction, and mental health in qatar. Family J. 2021;30(1):85-90. [DOI:10.1177/10664807211000720]
9. Mardani M, Alipour F, Rafiey H, Fallahi-Khoshknab M, Arshi M. Challenges in addiction-affected families: a systematic review of qualitative studies. BMC Psychiatry. 2023;23:439. [DOI:10.1186/s12888-023-04927-1]
10. Stellern J, Xiao KB, Grennell E, Sanches M, Gowin JL, Sloan ME. Emotion regulation in substance use disorders: a systematic review and meta-analysis. Addiction. 2023;118(1):30-47. [DOI: 10.1111/add.16001] [PMID] [PMCID]
11. Akbarpour F, Zare Bahramabadi M, Davaei M, Hassani F. Comparing the efficacy of mindfulness-based group training and emotion regulation skills in externalizing syndromes in adolescents with a tendency for risky behaviors. Avicenna J Neuro Psycho Physiology. 2021;8(3):129-134. [DOI: 10.32592/ajnpp.2021.8.3.102]
12. Weiss NH, Kiefer R, Goncharenko S, Raudales AM, Forkus SR, Schick MR, et al. Emotion regulation and substance use: A meta-analysis. Drug Alcohol Depend. 2022;230:109131. [DOI: 10.1016/j.drugalcdep.2021.109131] [PMID] [PMCID]
13. Matei-Mitacu L-M, Huțul T-D, Karner-Huțuleac A, Huțul A, Dobria C-A. The role of alcohol consumption motives in the relationships between psychological distress, emotional dysregulation, and problematic alcohol consumption. A mediation model. Curr Psychol. 2024;43(48):36831-45. [DOI:10.1007/s12144-024-07111-0]
14. Hatami Nejad M, Sadeghi M, Sadri Damirchi E, Noroozi Homayoon M. Examining the influence of alexithymia, gender, and age on drug use among iranian students: the mediating role of emotion regulation difficulties. Sci Rep. 2025;15(1):3650. [DOI: 10.1038/s41598-025-87394-w] [PMID] [PMCID]
15. Reese ED, Conway CC, Anand D, Bauer DJ, Daughters SB. Distress tolerance trajectories following substance use treatment. J Consult Clin Psychol. 2019;87(7):645-656. [DOI: 10.1037/ccp0000403] [PMID] [PMCID]
16. Daneshvar A, Maddahi M E, Ahadi H. Mediating role of social support in the relationship of distress tolerance and emotional self-regulation with depression in the survivors of Kermanshah earthquake. Avicenna J Neuro Psycho Physiology. 2022;9(2):69-74. [DOI:10.32592/ajnpp.2022.9.2.104]
17. Kaiser AJ, Milich R, Lynam DR, Charnigo RJ. Negative urgency, distress tolerance, and substance abuse among college students. Addict Behav. 2012;37(10):1075-1083. [DOI:10.1016/j.addbeh.2012.04.017] [PMID] [PMCID]
18. Kang D, Fairbairn CE, Ariss TA. A meta-analysis of the effect of substance use interventions on emotion outcomes. J Consult Clin Psychol. 2019;87(12):1106-1123. [DOI: 10.1037/ccp0000450] [PMID] [PMCID]
19. Dezhkam N, Zarbakhsh Bahri MR, Khaneh Keshi A. Association of addiction tendency with distress tolerance, self-differentiation, and emotion regulation difficulties mediated by resilience in university students. J Shahrekord Univ Med Sci. 2023;25(2):76-82. [DOI:10.34172/jsums.2023.760]
20. 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]
21. Shafikhani M, Bagherian F, Shokri O. On the relationship of time perspective with tendency to substance abuse in female adolescents. Etiadpajohi. 2016;10(38):11-24. [Link]
22. Yousefi N, Pariyad M. The relationship between family emotional climate and epistemological beliefs with academic performance among fourth year high school students in Bukan. J Sch Psychol. 2020;9(3):307-324. [DOI:10.22098/jsp.2020.1078]
23. Garnefski N., Kraaij V, Spinhoven P. Negative life events, cognitive emotion regulation and emotional problems. Personal Individ Diff. 2001;30(8):1311-1327. [DOI:10.1016/S0191-8869(00)00113-6]
24. Abdi S, Taban S, Ghaemian A. Cognitive emotion regulation questionnaire: Validity and reliability of Persian translation of CERQ-36 item. Procedia Soc Behav Sci. 2012;32:2-7. [DOI:10.1016/j.sbspro.2012.01.001]
25. Simons JS, Gaher RM. The distress tolerance scale: development and validation of a self-report measure. Motiv Emot. 2005;29:83-102. [DOI:10.1007/s11031-005-7955-3]
26. Azizi AR. Reliability and validity of the Persian version of distress tolerance scale. Iran J Psychiatry. 2010;5(4):154-8. [PMID] [PMCID]
27. Moore GF, Cox R, Evans RE, Hallingberg B, Hawkins J, Littlecott HJ, et al. School, peer and family relationships and adolescent substance use, subjective wellbeing and mental health symptoms in Wales: a cross sectional study. Child Indic Res. 2018;11(6):1951-1965. [DOI: 10.1007/s12187-017-9524-1] [PMID] [PMCID]
28. Barrett AE, Turner RJ. Family structure and substance use problems in adolescence and early adulthood: examining explanations for the relationship. Addiction. 2006;101(1):109-20. [DOI: 10.1111/j.1360-0443.2005.01296.x] [PMID]
29. Rahbarian M, Mohammadi A, Abasi I, Soleimani M. Emotion regulation problems and addiction potential in Iranian students. Practice Clin Psychol. 2017;5(4):235-242. [DOI:10.29252/nirp.jpcp.5.4.235]
30. Mattingley S, Youssef GJ, Manning V, Graeme L, Hall K. Distress tolerance across substance use, eating, and borderline personality disorders: A meta-analysis. J Affect Disord. 2022;300:492-504. [DOI: 10.1016/j.jad.2021.12.126] [PMID]
31. Vujanovic AA, Webber HE, McGrew SJ, Green CE, Lane SD, Schmitz JM. Distress tolerance: prospective associations with cognitive-behavioral therapy outcomes in adults with posttraumatic stress and substance use disorders. Cogn Behav Ther. 2022;51(4):326-342. [DOI: 10.1080/16506073.2021.2007995] [PMID][PMCID]
32. Horigian VE, Anderson AR, Szapocznik J. Family-based treatments for adolescent substance use. Child Adolesc Psychiatr Clin N Am. 2016;25(4):603-628. [DOI:10.1016/j.chc.2016.06.001] [PMID] [PMCID]
33. Zaorska J, Rydzewska M, Kopera M, Wiśniewski P, Trucco EM, Kobyliński P, et al. Distress tolerance and emotional regulation in individuals with alcohol use disorder. Front Psychiatry. 2023;14:1175664. [DOI: 10.3389/fpsyt.2023.1175664] [PMID] [PMCID]