The relationship between adverse childhood experiences and impulsive and risky behaviors: the mediating role of positive and negative emotional motivations in college students

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Abstract

Aim: Impulsive and risky behaviors include behavioral choices that may expose people to serious risks of harm. Therefore, the present study was conducted with the aim of the relationship between adverse childhood experiences and impulsive and risky behaviors, the mediating role of positive and negative emotional motivations in students.

Method: In terms of purpose, the research was applied, and in terms of the implementation, the correlation based on structural equations. The statistical population of the research included the students of Islamic Azad University, Babol in 1402-1403, and 200 people were selected as a sample by sampling method. Questionnaires risk tolerance of Zadeh Mohammadi et al. (2003), childhood trauma by Bernstein et al. (2003); Bernstein et al.'s childhood trauma (2003): Positive and negative effect, Watson and Telgen were used to collect data. The collected data were analyzed using structural equations in SPSS and AMOS software.

Finding: The results showed that adverse childhood experiences and negative emotional motivations have a positive and direct effect on impulsive and risky behaviors, and positive emotional motivations have a direct negative effect on impulsive and risky behaviors. Also, adverse childhood experiences have an indirect effect on impulsive and risky behaviors with the mediating role of positive and negative emotional motivations in students.

Conclusion: it provides new insights into how emotional motivations shape behavioral outcomes, offering a nuanced understanding that can inform targeted interventions for this specific population and various types of abuse or neglect and ignoring their needs and types of abuse in the context of family or society can have long-term harmful effects and cause risky and impulsive behaviors in the future.

Keywords: Adverse childhood experiences, impulsive and risky behaviors, positive and negative emotional motivation

Introduction

Impulsive and risky behaviors include behavioral choices that may expose people to serious risks of harm and reflect the desire to perform harmful behaviors, regardless of potential negative consequences (Steinberg et al., 2008). According to this definition, a wide range of behaviors can be considered as impulsive and risky behaviors. Some people may put themselves at risk by committing aggressive acts, harming themselves for a purpose other than suicide, or driving recklessly, while others may put themselves at risk by taking part in large bets or investments. Risky things, be at risk financially. Some people put their health at risk by taking illegal drugs or overeating, and others may engage in risky sexual behaviors or commit criminal acts (Camp et al., 2018). Engaging in impulsive and risky behaviors, regardless of whether they are criminal in nature or not, increases the likelihood of involvement in the justice system (Mesterbach et al., 2018).

One of the factors that have been considered in recent years to determine the initiation and process of impulsive and risky behaviors is adverse childhood experiences (Noyes & Lin, 2021), which are defined as potentially traumatic events that can have long-lasting negative effects. Have a term on people. Adverse childhood experiences, including various types of abuse (physical, sexual, and emotional abuse, neglect, witnessing domestic violence, and other serious family disruptions), represent potentially traumatic sources of stress and can have lasting negative effects on health, well-being, have education and job potential (Sulijova et al., 2022). In addition, adverse childhood experiences with poorer mental health and greater risk of psychological and psychiatric problems (Kalmakis and Chandler, 2014; Reiser et al., 2014; Serafini et al., 2014); Risky sexual behaviors (Abajobir, 2018), violence and aggression (Bonova et al., 2021), alcohol consumption and dependence (Hostade et al., 2021) and impulsive behaviors are associated (Chartier et al., 2010; Shin et al., 2018; Mouton et al., 2018). Colleagues, 2016). Studies report a high prevalence of adverse childhood experiences in the general population. For example, a study of 214,157 people in the United States found that more than half of respondents (61.55%) had experienced at least one adverse childhood

experience (Merrick et al., 2018) or another study with 12,288 participants in the same The country showed that in studies conducted in other countries, about 53% of people have experienced at least one childhood trauma (Jabrieli et al., 2023). These statistics show the high prevalence of adverse childhood experiences among adolescents and adults in different countries and cultures, which will have serious consequences for the development and health of the victims (Hostdeh et al., 2021).

In this regard, one of the possible moderators of impulsive and risky behaviors is positive and negative emotional state. In fact, people show reduced impulse control when experiencing negative effect. However, it is unknown whether types of impulsive and risky behaviors are equally affected by emotional states or whether impulsive behavior is sensitive to specific emotions (Herman et al., 2018). Engaging in impulsive and risky behaviors appears in various situations, but especially when people are in negative moods and emotions or are influenced by immediate temptations (Weiss et al., 2012). Accordingly, common theoretical models of risky and impulsive behavior identify two main drivers: (1) the reduction or relief of negative emotional states, such as intense distress, sadness, or anger (i.e., "stimulus avoidance"; Liro et al., 2010; Knock, 2010) and (2) to enhance positive affective states, such as pleasurable or exciting experiences (egg, "approach" stimuli; Horvath & Zuckerman, 1993; Zuckerman & Coleman, 2000; cited in Kemp et al., 2019). On the one hand, negative emotional states can act as triggers for impulsive and risky behaviors.

Exposure to substance-related cues and contexts increases susceptibility to relapse, and substance-addicted individuals are particularly vulnerable to withdrawal-induced episodes of negative affect (Baker et al., 2004). On the other hand, seeking positive affect may lead to risky and impulsive behavior. Among college students, positive affect increases the likelihood of illicit drug use and risky sexual behavior during college (Zapleski et al., 2009). In this regard, Herman et al. (2018) showed in a research that positive emotion was associated with increased risk-taking tendencies and risky decision-making, while negative emotion was associated with extreme impulsive actions.

In general, these two emotional stimuli are not independent of each other and these two systems, either alone or in interaction with each other, may lead to impulsive and risky behaviors. These systems may also be influenced by childhood experiences. In fact, evidence suggests that childhood experiences affect self-regulatory processes in general and the emotion regulation process in particular, leading to an inability to regulate disruptive emotions and impulses in a healthy and adaptive manner (Spelta, 2018). So that Jabrieli et al. (2023) showed in research, considering the effect of adverse childhood experiences on emotional motives and the effect of emotional motives on impulsive and risky behaviors, intervention on emotional motives may reduce impulsive risky behaviors And help to people who suffer from adverse childhood experiences.

It is noteworthy that these two emotional stimuli are not mutually exclusive. While for some students, negative affect causes impulsive and risky behavior, for other students, positive affect may be a trigger, for others, both negative and positive affect may be a trigger, and for some, risky behavior and Impulsivity may occur without an emotional stimulus. Therefore, it is necessary to understand the variety of emotional stimuli for impulsive and risky behaviors in order to accurately identify people who are involved in these behaviors and adverse childhood experiences, and finally to intervene based on the underlying etiological and reinforcing mechanisms of their behavior. Therefore, the current research seeks to answer the question of whether is there a relationship between adverse childhood experiences and impulsive and risky behaviors with the mediating role of positive and negative emotional motivations in student?

Methods

The current research is applied in terms of its purpose and in terms of the research method, it is a correlational descriptive-survey research based on structural equations.

The statistical population of this research included all the students of the Islamic Azad University of Babol branch in the academic year of 1402-1401. Since the methodology of structural equation modeling is similar to some aspects of multivariate regression, the principles of determining the sample size in multivariable regression analysis can be used

to determine the sample size in structural equation modeling. In multivariate regression analysis, the ratio of the number of samples (observations) to the independent variables should not be less than 5. It should be noted that the emphasis is always on the fact that the sample size should not be less than 200 people (Homan, 2013). In total, the sample size of this research was 200 people, which was used with the available sampling method, and the questionnaires were presented only to the students who wanted to complete them, and there was no compulsion or financial incentive to fill them. Entry criteria include being a student, being a volunteer and not suffering from mental disorders and psychosis. In this research, in order to analyze information from descriptive statistical methods (mean and standard deviation, skewness and kurtosis) and inferential (Kolmogorov Smirnov test to check the normality of data distribution, Pearson correlation test) through software. SPSS version 26 and structural equations with Amos software version 23 were used.

Impulsive and risky behaviors questionnaire: In the current research, the questionnaire of Mohammadizadeh et al.'s risk tolerance scale (2013) was used, which has 38 questions. This scale measures the level of risk from different dimensions of drug addiction (8 questions), alcohol addiction (6 questions), smoking addiction (5 questions), violence addiction (5 questions), relationship and sexual behavior addiction (4 questions), addiction it measures the relationship with the opposite sex (4 questions), the tendency to drive dangerously (6 questions). The scoring method was based on a five-choice Likert scale from 1 completely disagree to 5 completely disagree. To get the score for each dimension, the total scores for each question of that dimension are calculated together. Higher scores in each dimension will indicate a higher tendency of the respondent towards that dimension and vice versa. The overall score of this questionnaire will be from 38 to 190. Higher scores indicate a higher risk level of the respondent and vice versa. In the research of Zadeh Mohammadi et al. (2010), the construct validity of this scale was evaluated. Exploratory factor analysis with principal components showed that this questionnaire is a seven-dimensional scale, which explains 64.84% of the variance of risk taking. Cronbach's alpha for the whole scale was 0.94 and for its subscales was in the

range of 0.74 to 0.93, which indicates the good reliability of this scale. In this research, the reliability value obtained using Cronbach's alpha method was 0.75.

Bernstein et al.'s childhood trauma questionnaire: Childhood trauma questionnaire or childhood trauma questionnaire was designed and developed by Bernstein et al. in (2003) in order to measure childhood injuries and trauma. This questionnaire has 28 questions, 25 of which are used to measure the main components of the questionnaire (5 questions per component) and 3 of which are used to identify people who deny their childhood problems and include 5 components of emotional abuse. It is physical abuse, sexual abuse, emotional neglect, and physical neglect, and its scoring is based on a 5-point Likert scale. Before scoring the components of the questionnaire, the scoring of questions 5, 7, 13, 19, 28, 2, and 26 should be reversed. High scores in the questionnaire indicate trauma or, more damage and lower scores are indicative of less childhood damage or trauma. The range of scores for each of the subscales is 5 to 25 and for the whole questionnaire is 25 to 125. The scoring of each component of the questionnaire is given below. Note that questions 10, 16, and 22 are intended to measure validity or denial of childhood problems. If the total number of answers given to these questions is higher than 12, there is a high probability that the person's answers are invalid. In Iran, Ibrahimi and colleagues have reported Cronbach's alpha of this questionnaire from 0.81 to 0.98 for its five components. Cronbach's alpha coefficient calculated in the research of Enfaal et al. (1400) for this questionnaire was estimated to be above 0.70. In this research, the reliability value obtained using Cronbach's alpha method was 0.84.

Positive and negative affect evaluation scale: This scale was created in 1988 by Watson and Telgen to measure the two dimensions of "negative emotion" and "positive emotion" and has 20 items, in front of each item, a range of 5 options ranging from very low (score 1) to very high. High (score 5) is rated by the subject and the range of scores for each subscale is 10 to 50. The reliability value using Cronbach's alpha method for positive affect subscale is 0.88 and for negative affect subscale is 0.87. The reliability of the test using the test-retest method with an interval of 8 weeks has been reported as 0.68 for the

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subscale of positive affect and 0.71 for the subscale of negative affect (Watson, Clark and Telgen, 1988; quoted by Bakshipour and Dejkam, 1384).. In this research, the reliability value was obtained by Cronbach's alpha method for positive emotion (0.78) and for negative emotion (0.81).

Results

The results showed that 45 people (22%) were married and 155 people (78%) were not married. Also, 7 people (0.03%) had associate degrees, 95 people (47%) had bachelor's degrees, 68 people (34%) had master's degrees, and 30 people (15%) had doctorate degrees. Table 1 shows the descriptive findings of the research variables.

Table 1. Descriptive statistics of research variables

variable	Mean	SD	skewness	kurtosis	tolerance	VIF	1	2	3	4
Tendency to drug	22/860	2/651	-0/514	0/729						
Tendency to alcohol	15/040	3/119	0/113	-0/482						
Tendency to cigarette	13/596	2/403	0/184	-0/155						
Tendency to violence	13/544	3/344	0/036	-0/399						
Tendency to sexual relationship	11/340	2/742	0/394	0/309						
Tendency to relationship with opposite sex	10/052	3/223	0/634	0/275						
Tendency to risky driving	14/644	3/471	0/221	-0/362						
Emotionally abuse	18/024	2/637	-0/126	-0/096						
Physically abuse	13/764	2/876	-0/080	-0/283						
Sexual abuse	11/836	3/712	0/388	-0/284						
Emotionally neglect	18/412	2/275	-0/473	0/001						
Physically neglect	14/564	3/444	-0/092	-0/619						
1.adverse childhood experience	76/616	9/654	0/099	0/168	0/85	1/22	1			
2. positive emotionally motivation	35/956	6/456	-0/389	-0/2847	0/87	1/33	-0/43**	1		
3.negative emotionally motivation	37/528	7/084	-0/338	-0/194	0/86	1/14	0/63**	0/55**-	1	
4. impulsive and risky behavior	101/076	1/7251	0/608	0/466			0/44**	0/62**-	0/44**	1

Table 1. Descriptive statistics of research variables

The mean and standard deviation of impulsive and risky behaviors equal to 101.076 (11.725), adverse childhood experiences equal to 76.616 (9.654), positive emotional motives equal to 35.956 (6.456) and Negative emotional is equal to 37.528 (7.084).

Before analyzing the research data, first the statistical assumptions of structural equation model method were checked. For this purpose, three hypotheses including missing data, normality, and multiple collinearities were investigated. Regarding the first hypothesis, this research did not have any missing data. Regarding the hypothesis of normality, two indices of skewness and kurtosis were used, based on the data in Table 1, the skewness and kurtosis indices calculated for all variables are in the range of ±2, so the distribution of the variables has a normal distribution. Also, to check the third hypothesis, i.e., collinearity, tolerance index and variance inflation factor were used. Tolerance value less than 0.1 and variance inflation factor value greater than 10 indicate collinearity. The results in Table 1 show that the obtained values are within the acceptable range and there is no collinearity between the research variables. Also, the results of the Pearson correlation test show that there is a significant relationship between all research variables, which indicates the existence of a linear relationship between the variables. Now, after confirming the hypotheses of the research, the hypotheses were tested using structural equation model method and Amus software. Figure 1 shows the model of relationships between variables.
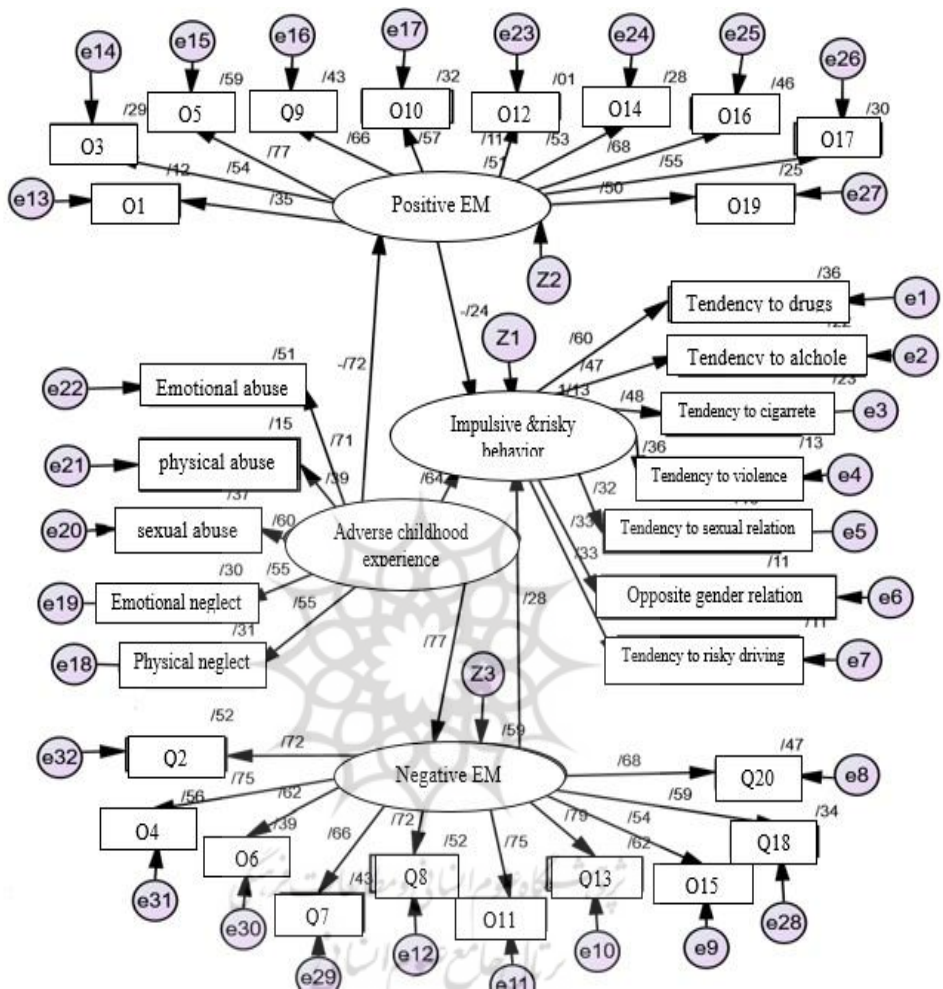
Figure 1. Standard coefficients of the structural equation model for the mediating role of positive and negative emotional motivations in the relationship between adverse childhood experiences on impulsive and risky behaviors in students.

In this model, the variable of adverse childhood experiences is considered as an exogenous variable. The direct and indirect effects of adverse childhood experiences on the dependent variable of impulsive and risky behaviors are investigated. Also, the direct effect of adverse childhood experiences on the mediating variables of positive and

negative emotional motives and the direct effect of these two variables on the dependent variable of impulsive and risky behaviors are also examined. Next, the direct and indirect coefficients of the relationships between these variables are presented in Tables 2 and 3.

Table 2. Coefficients of direct path and significance of relationships between research variables

Dependent Variable	prediction	Unstandardized coefficient	standardized coefficient	C.R	P
adverse childhood experiences	positive emotional motivations	-0/180	-0/716	-4/306	0/01
adverse childhood experiences	negative emotional motivations	0/229	0/767	6/748	0/01
adverse childhood experiences	impulsive and risky behaviors	0/534	0/641	3/622	0/01
positive emotional motivations	impulsive and risky behaviors	-0/807	-0/243	-2/204	0/028
negative emotional motivations	impulsive and risky behaviors	0/792	0/283	2/313	0/021

The analysis of the direct effects of the relationships between research variables in Table 2 shows that the direct effect of adverse childhood experiences on positive emotional motivations ($\beta = -0.716$, p<0.01) is negative and significant and on negative emotional motivations. $\beta = 0.767$, p=0.028) is positive and significant, also the direct effect of adverse childhood experiences on impulsive and risky behaviors ($\beta = 0.641$, p=0.021) is positive and significant. The direct effect of positive emotional motives on impulsive and risky behaviors ($\beta = -0.243$, p < 0.01) is negative and significant, and the direct effect of negative emotional motives on impulsive and risky behaviors ($\beta = 0.283$, p < 0.01) is also positive and significant.

Next, to check the significance of the indirect effect, the bootstrap test was used, and the results are presented in the table below.

Table 3. Indirect path coefficient and mediating role of positive and negative emotional motives

Indirect path	Indirect Unstandardized coefficient	P	Lower bound	Upper bound
Effect of adverse childhood experiences and impulsive and risky behaviors via positive emotional motivations	0/17	/0010	0/076	0/102
Effect of adverse childhood experiences and impulsive and risky behaviors via negative emotional motivations	0/21	/0010	0/025	0/11

Bootstrap method with 95% confidence interval and 5000 resampling number was considered. If the obtained values (confidence interval) do not include zero, the role of the mediating variable is significant. According to Table 3, positive emotional motivations play a mediating role in the relationship between adverse childhood experiences and impulsive and risky behaviors, and the coefficient of the indirect path is 0.17. Considering that the lower limit of the confidence interval is 0.076 and the upper limit is 0.102 and zero is outside this interval, this mediating relationship is significant at the $p<0.01$ level. Also, negative emotional motivations play a mediating role in the relationship between adverse childhood experiences and impulsive and risky behaviors, and the coefficient of the indirect path is equal to 0.21. Considering that the lower limit of the confidence interval is 0.025 and the upper limit is 0.11 and zero is outside this interval, this mediating relationship is significant at the $p<0.01$ level. In order to fit the model, fit indices are reported in Table 4.

Table 4. Model fit indices

fit indices	Accepted value	Observed value
CMIN		562/7
df		205
CMIN/df	<3	2/745
RMSEA	<0/08	0/078
GFI	>0/9	0/95
AGFI	>0/9	0/91
CFI	>0/9	0/95
NFI	>0/9	0/94

GFI: Goodness-of-fit; AGFI: Adjusted goodness-of-fit index; CFI: Comparative fit index; NFI: normed fit index; RMSEA: Root means square error of approximation

Table 4 shows the fit indices of the model. Based on the above results, the root mean square error of estimation (RMSEA) index is equal to 0.078, which is smaller than the standard value (0.08). AGFI, CFI, GFI, and NFI indices have also increased compared to the initial model and are higher than the desired criterion (0.9). According to the obtained fit indices, it can be said that the model of the relationship between adverse childhood experiences and impulsive and risky behaviors with the mediating role of positive and negative emotional motives in students has a good fit.

Discussion

The purpose of this research was to investigate the relationship between adverse childhood experiences and impulsive and risky behaviors with the mediating role of negative and positive emotional motivations in students. Based on the obtained results, adverse childhood experiences have a positive and significant direct effect on impulsive behaviors. In other words, with the increase of adverse childhood experiences, impulsive and risky behaviors increase in students. The results are consistent with the researches of (Chartier et al., 2010; Shin et al., 2018; Mouton et al., 2018), (Herman et al., 2018), (Hostade et al., 2021) stated in his research that primary trauma is a trigger for creating several elements of personality disorder, such as emotional instability, emotional disorder, and risky and impulsive behaviors. Also, Jabrieli et al. (2023) showed that there

was a significant relationship between types of child abuse (not child neglect) and impulsive and risky behaviors, which is in line with the current research.

In explaining this finding, it can be said that since students are part of one of the most vulnerable groups in society, therefore, the risk of various types of abuse or neglect and ignoring their needs and types of abuse in the context of family or society Convenience can have long-term harmful effects and cause risky and thoughtless behavior in the future. There are several possibilities regarding how child maltreatment may lead to the development of impulsive and risky behaviors. The first interesting possibility is that there is a reciprocal relationship between the two. In such a way that adverse childhood experiences lead to an increased risk of impulsivity and impulsive situations and related behavioral problems, as a result, this leads to an increase in the likelihood of subsequent emotional and physical misbehavior, especially when the parents themselves are susceptible.

They are impulsive. In addition, this possibility is strengthened by the heritability of impulsivity with impulsive parents, in which case parents exposed to unpleasant parenting practices, including maltreatment, are more likely to be affected by their child's misbehavior, and so are their impulsive children. Are more exposed to this abuse (Liu, 2019).

The results of the present study showed that positive emotional motivations have a significant direct negative effect on impulsive behaviors and negative emotional motivations have a significant direct positive effect on impulsive and risky behaviors. The results are in line with the researches of Jabraili et al. (2023), Herman et al. (2018), and Kemp et al. (2019). Herman et al. (2018) showed that positive affect was associated with increased risk-taking tendencies and risky decision-making, while negative affect was associated with highly impulsive actions.

According to the obtained results, it is acceptable that people, while experiencing negative emotion, remember events that behave impulsively (memory bias) and initially tend to behave in the same way. Alternatively, engaging in impulsive actions may serve as a way

to regulate one's mood. Therefore, it seems that the emotional state is taken into consideration when evaluating trait impulsivity (Herman et al., 2018). Previous studies have shown that individual behavior is the result of the interaction of emotion and cognition. In the process of interaction with the outside world, the repeated experience of an individual makes the related emotions, cognitions and behaviors often act through the emotion-cognition-behavior model (Guastela and Dodds, 2009). According to the theory of development and construction of positive emotions (Fredrickson, 2001), positive emotions usually strengthen cognition, activate behavior, and help people achieve specific goals. On the contrary, negative emotions (such as depression and anxiety) can easily trap people in a "negative loop", limit their perception and thinking, and interfere with the interpretation, use and response of information (Yu et al., 2020). This finding agrees well with the view proposed by previous researchers (Badgayan et al., 2016) that individuals with emotional instability, anxiety, moodiness, and irritability reported more impulsive tendencies. Therefore, it can be expected that positive emotions and emotions lead to a decrease in impulsive behaviors and negative emotions lead to an increase in impulsive behaviors.

Also, the results showed that adverse childhood experiences have a significant direct negative effect on positive emotional motives and a significant direct positive effect on negative emotional motives. The results are in line with the researches of Jabraili et al. (2023) and Hellenyak (2016), Sudit et al. (2022), Offerman et al. (2022) and Shin et al. (2018). Sudit et al. (2022), showed that adverse childhood experiences are related to emotions and emotions. Also, Shin (2018) stated that adverse childhood experiences are associated with strong negative emotions.

In explaining this finding, it can be said that experiencing different types of misbehavior and adverse experiences in childhood is associated with poorer mental health outcomes, including increased severity of depression and anxiety. Children's living environment is of particular importance in the early stages of their development, children's neural development can be affected when they are chronically exposed to stressful events such

as exposure to physical, sexual, emotional abuse, physical and emotional neglect. And the observation of violence in the family is disrupted, as a result the child's cognitive function or dealing with negative and destructive emotions and emotions is also disrupted and his positive and negative emotions are affected. In this regard, Helenyak (2016) showed in research that adverse experiences in childhood are associated with a high level of mental problems and high levels of emotional and emotional reactions in the future. In addition, research findings indicate that negative childhood experiences have long-term and lasting effects on neurochemistry, brain structure and behavior and emotional motivations and affect the ability to regulate emotions in children (Lorich et al., 2002). In the psychological dimension, there is a lot of evidence that shows that childhood trauma is associated with the development of depression and anxiety, and rumination appears as a mediator in relation to childhood traumas and mood states such as depression, anxiety, and emotional disability, and as a result, it affects their cognitive performance. (Mittel et al, 2020). In general, negative childhood experiences cause changes in the state of stress mediators and neurotransmitters in certain areas of the brain. The interaction of these mediators with the growth of the neural network can lead to long-term structural and functional changes and influence on emotional motivations in positive and negative dimensions.

Finally, the results showed that adverse childhood experiences have an indirect effect on impulsive and risky behaviors with the mediating role of positive and negative emotional motivations in students. In other words, positive and negative emotional motivations have a mediating role in the relationship between adverse childhood experiences and impulsive and risky behaviors. The results are in line with the researches of Jabraeili et al. (2023), Herman et al. (2018) and Shin et al. (2018).

In explaining this finding, it can be said that being exposed to childhood abuse and all kinds of physical, sexual, emotional abuse and physical and emotional neglect during childhood and the critical period of people's development causes changes in the neurodevelopment of people's norms, especially It occurs in the prefrontal cortical areas

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that control inhibitory reactions and in turn causes impulsive and risky behavior. In some cases, it has been observed that impulsive behavior itself has caused misbehavior from parents and other caregivers, which is followed by many emotional and emotional problems. This hypothesis is also in line with the research of Jabraeili et al. (2023), because in that the researchers concluded that positive and negative emotional motivations act as a mediating mechanism between the experience of harassment and abuse and drug use.

Conclusion

The counseling or therapeutic significance of this article is to help people who suffer from adverse childhood experiences and have impulsive and risky behaviors.

Researchers have suggested that childhood adversity is associated with maladaptive schemas, such as at-risk subjects. Risk schemas facilitate biased processing of threat-related information. That is, threats schemas influence the way people allocate their attention resources, interpret ambiguous material, and recall threat experiences. It was found that people who act according to the risk schema prefer smaller immediate rewards to bigger rewards in the future (Berzina et al., 2009). In other words, they act more impulsively. This type of impulsivity is understandable because future rewards are more uncertain in dangerous and constantly changing environments.

In recent studies over the past four years, the relationship between adverse childhood experiences (ACEs) and impulsive, risky behaviors has been further explored, with an increasing focus on the role of emotional motivations.(Smith et al, 2020) highlighted the long-term impacts of ACEs on risky behaviors, emphasizing the role of emotional regulation and the heightened vulnerability to risky decisions in adulthood. Johnson et al, 2021) found that negative emotional motivations, such as anxiety and depression, significantly increase risky behaviors, while positive emotional motivations may serve as protective factors. Similarly, (Garcia et al, 2022) utilized structural equation modeling to demonstrate that both positive and negative emotional motivations act as mediators in the relationship between ACEs and impulsive behaviors, suggesting that managing negative emotions could reduce risk-taking tendencies. Finally, (Brown & Taylor, 2023) identified

severe negative emotions, such as anger and anxiety, as key drivers of impulsive behaviors in individuals with ACEs, supporting the notion that strengthening positive emotional motivations can effectively mitigate risky behaviors.

These recent findings align with the results of this study, reinforcing the critical mediating role of emotional motivations and offering important implications for targeted interventions aimed at managing emotional responses to reduce risky behaviors in individuals with a history of childhood adversity.

 It is assumed that when people over time prefer immediate rewards over various things, this leads to the occurrence of decision-making and the tendency to impulsive and risky behaviors. This tendency towards immediate reward in people with adverse childhood experiences makes them, on the one hand, constantly seek excitement or pleasant states, despite the negative consequences (Sadeh, 2021) and, on the other hand, makes them unable to tolerate negative emotions and seek the fastest solution for relief (Miglin et al., 2020) Both of these problems can lead to impulsive and risky behaviors.

This research, like other researches, faced limitations; For example, due to the data collection method which was self-reporting, the samples may not have provided detailed information about their behaviors and experiences, and considering that the current research was cross-sectional and correlation, longitudinal research is needed for causal conclusions. In the end, it is suggested that in order to increase validity and reduce the possibility of response bias, future researches can use multiple assessment methods, such as behavioral observations or diagnostic interviews, and the constructs measured in the present study may be influenced by different individual and family cultural values.; Therefore, future researches should study these structures in different cultural context

Disclosure Statements
The authors declare no conflict of interest

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