

## Abstract

**Objective:** This study aimed to investigate the effect of management of primary addiction prevention on male high school second graders. **Method:** A descriptive-survey design was employed for the conduct of this study and risky and protective factors in drug use were identified in the target population. Then, the number of 850 high-school students at the second grade in municipal districts 5 and 15 of Tehran in 2015 was selected via random clustering sampling method and completed the intended questionnaire. **Results:** The results showed that primary prevention management, personal factors, social factors, individual factors, and environmental factors were effective in students in relation to the use of narcotics and psychotropic substances; however, interpersonal factors were not effective. **Conclusion:** The obtained mean value was above the estimated average, which indicates the significant effect of primary prevention management on preventing drug abuse and use of psychotropic substances among students.

**Keywords:** prevention, prevention management, drug use, risk factors, protective factors, students

# On the Effect of Management of Primary Addiction Prevention on Male High School Second Graders

Alireza Jazini

**Alireza Jazini**

Assistant Professor, Drug Control  
Headquarters, Tehran, Iran,  
Email: alirj1101@gmail.com



**Research on Addiction  
Quarterly Journal of Drug  
Abuse**

Presidency of the I. R. of Iran  
Drug Control Headquarters  
Department for Research and Education

Vol. 10, No. 37, Spring 2016

<http://www.etiadjournal.ir/>

## Introduction

Substance use and psychedelic use have been introduced amongst the most serious problems facing young people in the past four decades in all societies and various programs have been designed and implemented to prevent its spread and use. These programs include information improvement approach and knowledge-based program on the basis of the fear of audiences, emotional training approach, the approach of alternative activities, and psycho-social empowerment along with life skills training. The review of related literature shows that schools are the most appropriate locations for the implementation of programs for the prevention of risky behaviors since schools are regarded as the base and the center of socio-cultural life in societies. In fact, schools provide the training on how to live a better life and to live together. In this way, schools prepare adolescents to live in the era of the third millennium with serious problems in terms of culture and the incidence and prevalence of the increasing traffic of subcultures and a variety of risk behaviors, such as smoking, tobacco use, narcotics use, hallucinogenic substances, alcoholic drinks, immoral relationships, virtual networks, and the psychological wars on satellites and the Internet. Thus, individuals become resistive and secure against the above risky behaviors.

Unfortunately, the age of addiction and drug abuse has been fallen in recent years in many countries and this has become one of the concerns of the authorities in the field of social security. Schools have become the main center of activity for adolescents due to urbanization and attention to education and literacy. For this reason, the importance of addiction prevention in schools and the neighboring environment becomes more prominent. Nowadays, one of the important issues raised in all societies and in the minds of many sociologists, criminologists, security authorities is substance use addiction by adolescents and young people and its prevention. Adolescents and young people are considered an important part of human capital in each society; however, they are exposed to the experience of and dependence on drug use. The most effective intervention toward the improvement of psychosocial capabilities is the one that boosts personal and social skills. Such interventions are possible to be implemented through life skills education in the school environment.

The majority of teenagers who begin drug use in early adolescence will continue to use it in the following years. Considering this concern, the need to design effective programs for prevention of drug use among young people is strongly felt. Efforts or the affairs that show drug use prevention is easier than cure is a basic premise of prevention. However, the logical simplicity of prevention has been placed on its difficulty. The development of effective prevention approaches has been fulfilled with a higher level of delay and difficulty than what was supposed to have taken place. In addition, most of the efforts to develop effective drug prevention activities have reached only to a

limited degree of success and some have become quite unsuccessful (Botvin & Griffin, 2006).

Addiction prevention programs are more effective when they commence at younger ages, especially before the start of adolescence. Therefore, the Ministry of Education has a special role in the field of prevention of drug addiction among other bodies; and the design and implementation of effective programs for addiction prevention in schools is the result of more than a decade of efforts in this field in the country. Following the introduction of the policy of "demand reduction" or "prevention" as the "preferred policy" on the part of the Drug Control Headquarters, the design and implementation of preventive programs in the Ministry of Education has assumed greater significance. According to what was stated, the purpose of this study is to find the effectiveness of management of primary addiction prevention on male high school second graders. One of the most important ways to curb drug addiction or at least reduce drug use is the discovery of the motives and factors of drug use (i.e., to understand how it begins and continues). On the one hand, there is a series of risk factors that increase the likelihood of consumption; on the other hand, there are protective factors that reduce this possibility. In this regard, these risky and protective factors have introduced critical views regarding the factors effective in substance use (Taremian, 2004). Modern methods in the field of drug use prevention programs are bluntly different from conventional methods. These programs have been founded upon a more correct and complete understanding of the causes of drug use, pay attention to the multilevel nature of factors effective in substance use, and consider the link between knowledge and skill as the foundation of action (Botvin, 2004). Numerous factors, including individual, family, and community ones are effective in the initiation of, continuity of, and relapse into drug use after treatment of this disorder (Poorshahbaz, Shamloo, Jazayeri & Ghazi Tabatabaei, 2008, Dabaghi, Asgharnejad, Atef Vahid & Bolhari, 2010).

The most effective research-based approaches for the prevention of substance use in adolescents lay emphasis primarily on the risk and protective factors that cause the initial use of substances (Howkins & Catalona, 1999). The main components of this approach include personalization of the risks associated with drug use, elimination of misconceptions and wrong normative beliefs about substance use, teaching on identification and resistance against pressure from peers, family, the media, and the emphasis on the values and attitudes that support non-use of drugs (Mehdizadeh, 2015). One of the unique benefits of these programs is that they can question the risk factors that are important in the design of preventive programs (Howkins & Catalona, 1999). Several meta-analysis studies suggest that approaches to social influence and improvement of the capability of traditional educational approaches are more effective and the interpretation of behavior and attitude is more evident in these approaches (Botvin & Griffin, 2006).

In the Comprehensive Document of Primary Prevention of Addiction (2011) that is approved by the Drug Control Headquarters, the policies, principles, standards, and guidelines of prevention programs have been developed where the first policy states that management of addiction prevention should be sensitive to all the events and decisions beyond authority in terms of their effect on the incidence of addiction and should have interaction with them in order to reduce the incidence of addiction. In the second policy, the management of combat against drug addiction should prioritize the prevention strategy to other strategies in the plan and budget.

The main decided strategy is the development of services for addiction prevention in order to reduce risk factors and enhance protective factors at target centers, including families, educational settings, workplaces, community, and society. In the sixth national program, addiction prevention services in education have been emphasized. Prevention management is an attempt to the development of right educational programs towards preventive skills (Rafieefar et al., 2010). Primary prevention is the first method to keep healthy people distanced from the consumable illegal substances. This type of prevention emphasizes the provision of basic information about different substances and their risks by creating negative attitudes towards substance use, strengthening cognitive skills to recognize dangerous situations, avoiding their use, and teaching social skills necessary to resist peer group pressure for substance use (Atashin, 2001). One of the most important achievements in the field of theory-making and policy-planning of prevention programs in terms of risk behaviors and substance abuse is the placement of the main focus on risk and protective factors as a descriptive and predictive framework (Arthur, Hawkins & Catalano, 2002). Research findings direct the science of prevention by identifying the risk and protective factors that increase or decrease the likelihood of substance use or abuse and other risky behaviors. Risk factors include the variables or events that are associated with the increased likelihood of the incidence of certain disorders in the persons with these variables compared to the individuals that are chosen from a general population randomly. Protective factors are the ones which lead to a lowered probability of developing such disorders. In other words, these factors refer to the ones that nullify the effect of risk factors and decrease the likelihood of showing risky behaviors by individuals. Risk behaviors are those voluntary behaviors that individuals embark on doing regardless of their consequences. These behaviors put the health and well-being of the individuals and even the society at risk by their negative consequences (Pat-Horenczyk et al., 2007). From among different categories, risk factors can be introduced in the form of individual-individual and social-environmental factors. Drug addiction can be viewed as a chronic toxicity that is harmful for the person, the family, and the society (Farjad, 1995). Individual risk factors include environmental and psychological issues and harmful life events, especially in adolescence. Environment-individual risk factors include those features that exist in the

person's family, peer groups, and friends (Dadsetan, 2003). Social factors include the social norms and regulations regarding drug use and cultural beliefs in promotion or legalization of substance use (Madadi & Nooghan, 2005). Protective factors are those characteristics in the individual, family, and environment that increase one's ability to resist against the adverse issues and events. These factors induce resiliency in people. Risk factors include each aspect of behavior or lifestyle, environment, and congenital characteristics that increase the possibility of substance use. Protective factors entail every aspect of behavior or lifestyle, environmental aspects, or congenital and inherited characteristics that reduce the risk of substance use in the individual or group (National Center for Biotechnology Information). In developed countries like the United States, substance use prevention programs are included in schools and high school. For example, Toward No Drug Abuse Project has targeted only adolescents in high schools. One of the elements of addiction prevention programs for adolescents is the creation of motivation in them not to get engaged in substance use (Sussman, 1996).

The existing literature shows that "prevention" of addiction and risk behaviors is much easier than treatment and cure. Although there are some differences between developers and designers of prevention programs, the cornerstone of any prevention program is the identification of the factors that put people at risk for problematic behaviors or protect them against such behaviors (Spath, Guyl & Day, 2002). In recent years, researchers have been more interested in the investigation of the protective and risk factors that are associated with problematic behaviors. Jessor & Turbin (2014) found that the application of rules and restrictions and also control over teenagers are among the protective factors with the greatest impact on reducing problematic behaviors of adolescents. Full attention to the details of the protective factors that play a role in reducing problematic behaviors has been suggested as an urgency (Mehdizadeh, 2015).

The role of education as one of the effective institutions in the society is of great importance in reducing the number of patients with addiction and curbing addiction since education office has a social approach with the aim of addiction prevention and with a higher focus on adolescent students. Education officials, particularly principals and educators should give enough attention to risk factors and preventive factors and include them in educational processes. In the education process, one cannot wait for the results and then separate the defective product. The ongoing reform of the flow of education is what should be constantly noticed. However, in terms of students' tendency to substance use, the important role of family, social environment, media, police, and other relevant organizations should not be neglected. Substance use prevention in schools should target all the drugs (legal or illegal), all the substances that may cause dependence and addiction or harm their health. In addition, the students' risks and problems resulting from drug use, including social problems and legal issues

of substance use should be regarded as part of the preventive efforts, as presented in the following literature review.

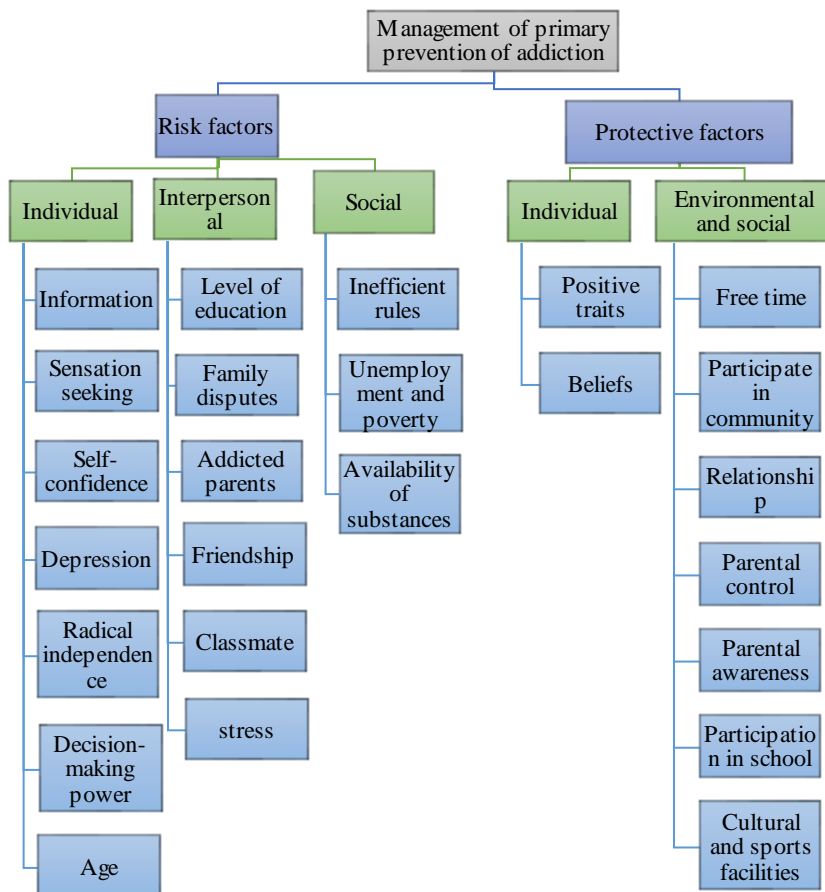
**Table 1: A summary of the literature review**

<i>Name</i>	<i>Year</i>	<i>Title or objective</i>	<i>Findings</i>
<b>Sterling et al.</b>	2015	Addiction as a social problem	The presentation of various sociological and psychological theories on the one hand and the development of ongoing research on the discovery of different aspects of addiction give us a more realistic understanding.
<b>Tate et al.</b>	2014	Risk factors and protective factors	Economic, social, communicative, and cultural factors as risk and protective factors are the best predictors in substance use.
<b>Martinez, Tatum, Glass, Bernath &amp; Ferris</b>	2014	Factors effective in addiction	Breakdown of family foundation, divorce, poverty, and crime increase drug use and addiction in people.
<b>Mark et al.</b>	2014	Social deviation of addiction	Addiction is a psychological and social phenomenon that is rooted in family relations, social relations, critical and cultural conditions, and the psychological characteristics of addicts. Addiction is a kind of social deviation, crime, and disease that requires treatment with the foresight and strategy that can carefully respond to the complexity of the phenomenon.
<b>Tull, Baruch, Duplinsky &amp; Lejuez</b>	2008	Dysfunctional performance of family	The negative consequences of poor family performance leads to the collapse of the family structure and risky and antisocial behaviors, such as escape from home, suicide, smoking, alcohol consumption, and dependence on drugs.
<b>Chung</b>	2007	Causes of substance use	About 79.1% of the students were faced with a family crisis. In the family of 65.1% of students, poor family functioning and permissive and licentious parenting styles have been used.
<b>Cooper</b>	2000	Preventive intervention strategies	Ignorance of the rapid spread and growth of drug use and its related problems in the student population as well as the existence of laboratory substances, such as crystal, vaccines, etc. represents an imminent deep and far-reaching threat. The methods and patterns of consumption and the prevalence of drug use as well as the relationship of drug use with students' problems, such as academic failure, dropouts, physical and mental disorders, and risky sexual behaviors clarify the need to the development and design of interventional preventive strategies.
<b>Tareman</b>	2003	Substance abuse in adolescents	Several factors are involved in drug abuse among youth and adolescents: individual factors, such as the experience of academic failure, love failure, heavy work, illness,

<i>Name</i>	<i>Year</i>	<i>Title or objective</i>	<i>Findings</i>
<b>Hoseini</b>	2001	Factors affecting male students' tendency to drugs	unemployment, and so on; social factors, such as living in high risk areas, the availability of drugs, and communication with addicts; and family factors, such as lack of parenting skills and following authoritarian parenting styles or parental conflicts. Environmental factors (parental addiction, material poverty of the family, cultural poverty, licentiousness, conflict, deprivation, deficient training and supervision, dereliction of religion) and social factors (availability of foodstuff, the absence of healthy fun, and economic factors) provide the conditions for youth and adolescents' tendency to addiction. Parents' attitude toward tendency toward addiction among students has been positive and the students themselves have confirmed this attitude up to 33%. Both primary and secondary prevention strategies, family environment, and school have been introduced as the source of substance sale and purchase among 4% of the students; there are smokers in 41% of the families; and 18% of them have cordial relations with their families. It is noteworthy that 71.4% of the students who have abnormal friends are largely exposed to smoking, 46.8% of them are highly vulnerable to drug abuse, and 74.3% of them are highly exposed to alcohol drinking. In this regard, the groups of friends and peers, family, self-belief, and social space are among the factors effective in smoking, drug use, and alcohol drinking among adolescents and young people.
<b>Naderinia</b>	1999	High school students' tendency to drugs in Markazi Province	
<b>Sedigh Sarvestani</b>	1996	Social status of families residing in district 15 of Tehran	

The model of risk and protective factors suggests that one can predict the behavior of drug use in adolescents based on a variety of risk factors. Risk Factors are referred to as the situations, attributes, variables, and events that increase the likelihood of drug use. In contrast, protective factors are the ones that neutralize the effects of risk factors and, thus, reduce the likelihood of the occurrence of problems. Risk and protective factors are various problematic behaviors and take place in various levels of family, community, school, peer groups, and individuals (Botvin, 2001). Hawkins & Catalano presented a solid theoretical framework about substance abuse wherein six areas (namely the individual, peer, family, school, neighborhood, and community) have been considered. These areas interact with each other. The individual is placed in the

center of this model; and process and respond to all the drivers based on their individual characteristics.



**Figure 1: The conceptual model of the research**

## Method

### Population, sample, and sampling method

This study falls within the category of descriptive-survey research design and applied research. At first, the risk and protective factors of drug use were identified in the target population. Then, negotiations were made with the research expert of Tehran Education Office during some meetings. Following the receipt of approval the selected schools were set; and, based on the calculated number of sample units, the required students were selected via random cluster sampling and the questionnaire was distributed among them. The school



authorities were asked to emphasize the school students that the selected have been selected randomly and the results of this research would be used to improve the plans for students at the same age. Due to the 850-participant size of the statistical population and according to Krejcie & Morgan's table (1970), the sample size was obtained equal to 265 high school students at the second grade in districts 5 and 15 of Tehran.

### Instrument

**Risk and Protective factors Inventory:** This is a researcher-constructed questionnaire that was prepared in this way: After the documentation of the questionnaire items, the questionnaire along with the research objectives and hypotheses was presented to a number of experts in the research field in order to judge the relevance of the items with the research objectives (content validity). The discriminant validity in the present study represents that the indicators of this construct make an appropriate differentiation relative to other constructs of the model. By means of the average variance extracted (AVE) and mean, it was found that the constructs under study have the AVE and mean values higher than .5. The composite reliability and Cronbach's alpha methods were used to check the reliability of the questionnaire where the obtained values were higher than .7. The related results are presented in the table below.

**Table 2: Convergent validity and reliability of the researcher-constructed questionnaire**

<i>Latent Variables</i>	<i>AVE</i>	<i>Composite reliability</i>	<i>Coefficient of determination</i>	<i>Cronbach's alpha</i>	$\sqrt{AVE}$	$\sqrt{R^2}$	<i>GOF</i>
<b>Social</b>	.79	.92	.37	.87			
<b>Interpersonal</b>	.72	.94	.83	.92			
<b>Risk factors</b>	.73	.92	.91	.91			
<b>Protective factors</b>	.67	.91	.38	.89			
<b>Individual</b>	.58	.90	.61	.87			
<b>Individual</b>	.86	.92	.27	.84	.84	.76	.64
<b>Environmental and social</b>	.56	.90	.70	.87			
<b>Management of primary prevention of addiction</b>	.70	.90	.72	.89			

Therefore, the researcher-constructed questionnaire contains 26 items with a 5-point Likert scale for response; and measures risk and protective factors.

## Results

In terms of age, the highest participation percentage (34.6%) pertained to the 17-year-old participants and the lowest participation percentage (2%) belonged to the 14-year-old participants. In addition, "confirmatory factor analysis" was run in SMARTPLS version 2 to assess the model.

Kolmogorov-Smirnov test was used to evaluate the normality of the components as follows.

**Table 3: Results of Kolmogorov-Smirnov test for normality of variables**

<i>Dimension</i>	<i>Variable</i>	<i>Z</i>	<i>Sig.</i>	<i>Result</i>
<b>Risk factors</b>	Individual	.92	.36	Normal
	Interpersonal	1.16	.14	Normal
	Social	1.30	.07	Normal
<b>Protective factors</b>	Individual	1.28	.09	Normal
	Environmental and social	1.13	.15	Normal

The correlation matrix has been presented in the table below.

**Table 4: Correlation matrix and divergent validity**

<i>Dimension</i>	<i>Latent variables</i>	(1)	(2)	(3)	(4)	(5)	$\sqrt{AVE}$
<b>Risk factors</b>	(1) Social	1	-	-	-	-	.89
	(2) Interpersonal	**.52	1	-	-	-	.85
	(3) Individual	*.18	**.52	1	-	-	.76
<b>Protective factors</b>	(4) Individual	**.83	**.47	*.25	1	-	.93
	Environmental and social	*.13	-.01	*.24	*.19	1	.75

\*P<.05; \*\*P<.01

Goodness of fit (GOF) index has measured the compatibility between the quality of the structural model and the measurement model, which can be obtained from the following formula. As it is shown in Table 2, this value is equal to .66 while the values higher than .40 suggest the model fitness. In other words, the data of this research have a good fit with the factor structure and the theoretical background of this research. This indicates the alignment of the items with theoretical constructs.

$$GOF = \sqrt{AVE} \times \sqrt{R^2}$$

The following chart indicates the multilevel confirmatory factor analysis model in the estimation mode of standard coefficients.

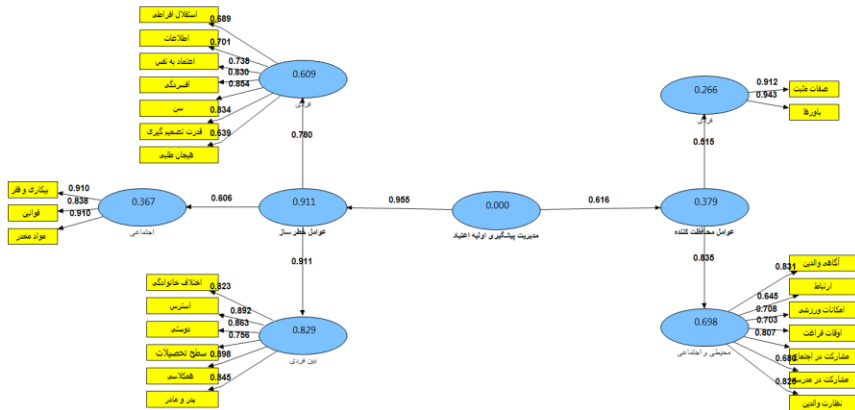


Figure 2: The model in the estimation mode of standard coefficients

In this figure, numbers or coefficients are divided into two categories. The first category is referred to as the first-order measurement equations, which are the relationships between the latent variables (oval) and observed variables (rectangles). These equations are called factor loadings. The second category is referred to as second-order factor loadings (structural equations), which are the relationships between latent and latent variables.

The following figure shows the structural equation modeling and confirmatory factor analysis in the absolute value of significant coefficients (t statistics). In fact, this model tests all the measurement equations and structural equations using t statistic. According to this model, the path coefficient is significant at the confidence level of 95% if the value of t-statistic is greater than 1.96.

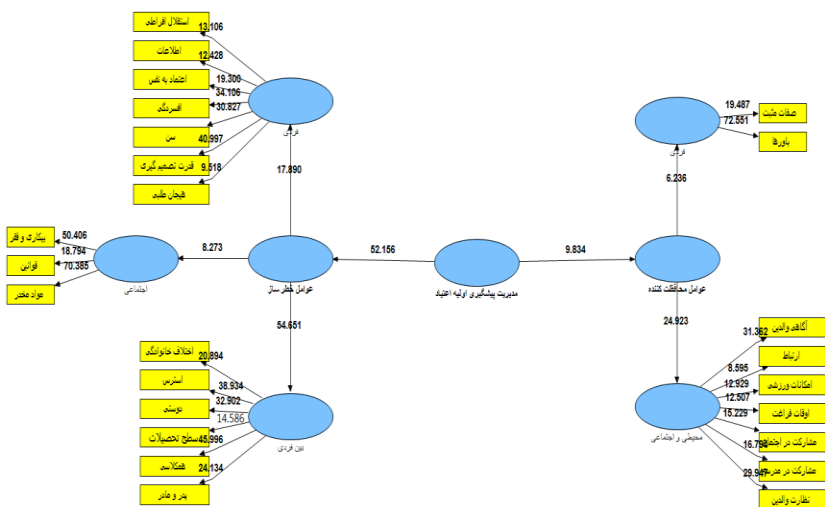


Figure 3: The research model in the mode of absolute significance of coefficients

**Table 5: Results of one-sample t-test**

<i>Variable</i>	<i>Mean</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>Sig.</i>	<i>Result</i>
<b>Major</b>	3.67	.39	19.846	135	.0005	Confirmed
<b>Minor 1</b>	3.88	.57	17.997	135	.0005	Confirmed
<b>Minor 2</b>	2.94	.59	-1.186	135	.24	Rejected
<b>Minor 3</b>	3.76	.77	11.514	135	.0005	Confirmed
<b>Minor 4</b>	3.84	.94	10.514	135	.0005	Confirmed
<b>Minor 5</b>	3.93	.53	20.362	135	.0005	Confirmed

As it is shown in the above table, in this study, the management of primary prevention, individual factors, social factors, individual-environmental factors, and environmental-social personal have been effective in students' use of narcotics and psychotropic substances. However, interpersonal factors have not been effective. Friedman test was used to rank the factors.

**Table 6: Results of Friedman test for ranking the factors effective in drug use**

<i>Variable</i>	<i>Mean rank</i>	<i>Chi-square</i>	<i>Sig.</i>
<b>Individual</b>	3.29	126.94	.0005
<b>Interpersonal</b>	1.64		
<b>Social</b>	3.13		
<b>Individual-environmental</b>	3.44		
<b>Environmental and social</b>	3.50		

As it can be observed in the above table, the significance of the test suggests that there is a significant difference between the factors' ranks and the factors do not have the same ranks. The results show that socio-environmental factors (risk) have had the greatest impact on the use of psychotropic drugs and narcotics (the highest mean rank). Then, individual factors (protective), individual factors (risk), and social factors have been placed in the next orders. Interpersonal factors have had the lowest effect.

## **Discussion and Conclusion**

This study aimed to examine the effect of management of primary addiction prevention on students (narcotics and psychotropic substances). The results showed that the obtained mean value is higher than the assessed mean value (greater than 3). This means that the management of primary prevention of narcotics and psychotropic substances has had an impact on students. Addiction prevention means the primary prevention of the process that leads to addiction, including attitudes to consumption, consumption for fun, occasional consumption, consumption, and dependency where the management has a noticeable effect on the prevention process. This finding is consistent with those of the studies conducted by Cooper (2014) and Naderinia (1999). In the present

study, the following research question was answered: Do individual factors affect the students in terms of the use of narcotics and psychotropic substances? The results showed that the obtained mean value is higher than the assessed mean value (greater than 3). This suggests that individual factors are effective in the consumption of narcotics and psychotropic substances among students. The most important prevention methods of drug use based on individual factors include the change of positive attitudes or the stabilization of negative attitudes towards narcotic drugs, reinforcement of religious beliefs and religious values, teaching of coping skills, making students aware and informed of the complications of drugs, life skills training, improvement of self-esteem, self-confidence, self-control and assertiveness, identification of adolescents, and prevention of the feeling of alienation and exclusion. This finding is consistent with those of the studies carried out by Taremian (2003), Sedigh Sarvestani (1996), Hoseini (2001), Martinez, Tatum, Glass, Bernath & Ferris (2014), Mark et al. (2014). The next research question was as follows: Are interpersonal factors effective in the consumption of narcotics and psychotropic substances among the students? The results showed that the obtained mean value is lower than the assessed mean value (smaller than 3). This suggests that interpersonal factors are not effective in the consumption of narcotics and psychotropic substances among the students. One of the most important and effective family factors in adolescents' risky behaviors is parental conflicts and parent-child conflicts; indeed, about half of drug addicts announce the history of substance use in one of their family members that is often the brother or father. Colleagues and the working environment are put in the next order of importance, which is indicative of the fact that the target population has not been suffering any problem in this regard. This finding is not consistent with those of the studies conducted by Mark et al. (2014), Tull et al. (2008), Sedigh Sarvestani (1996), Naderinia (1999), Taremian (2003), Chung (2007), and Martinez, Tatum, Glass, Bernath & Ferris (2014), and Mark et al. (2014). The next research question was as follows: Are social factors effective in the consumption of narcotics and psychotropic substances among the students? The results showed that the obtained mean value is higher than the assessed mean value (larger than 3). This suggests that social factors are effective in the consumption of narcotics and psychotropic substances among the students. Substance use and addiction has been recognized as a health problem and evidence-based studies have confirmed the effect of social factors on the incidence of substance use in communities. Social factors also constitute risk behaviors and health status of substance users. These factors influence human health indirectly via consumers' individual behaviors and directly by influencing the availability of resources, access to social welfare systems, and marginalization and acceptance of the treatment. This findings is consistent with those of the studies done by Sterling et al. (2015), Mark et al. (2014), Tate et al. (2014), Taremian (2003), and Hoseini (2001). The following research question was: Are individual-environmental factors effective

in the consumption of narcotics and psychotropic substances among the students? The results showed that the obtained mean value is higher than the assessed mean value (larger than 3). This suggests that individual-environmental factors are effective in the consumption of narcotics and psychotropic substances among the students. Nearly half of addicts have started substance use by friends' offers (often friends outside of school). The most common location of the first substance use was reported to be "home of friends". Several studies on addicts show that friends have an important role in the continued substance use, the dosage of substance, method of substance use, and the type of the substance. This finding is consistent with those of the research conducted by Hoseini (2001), Taremian (2003), Tull et al. (2008), and Martinez, Tatum, Glass, Bernath & Ferris (2014). The other research question was as follows: Are socio-environmental factors effective in the consumption of narcotics and psychotropic substances among the students? The results showed that the obtained mean value is higher than the assessed mean value (larger than 3). This suggests that socio-environmental factors are effective in the consumption of narcotics and psychotropic substances among the students. The most important method to prevent substance use is the creation of new entertainment, sports, and cultural centers for spending leisure time. In addition, the most important teaching method is to educate the public through the media. Moreover, the presence of good communications with family and reinforcement of affective ties of parents with children, life skills training to parents, using proper upbringing by parents, and attention to affective, mental and physical needs of children, and identification of students with addicted parents, the immunity of their children are among the most important prevention methods of substance use. This finding is consistent with those of the research conducted by Sedigh Sarvestani (1996), Hoseini (2001), Taremian (2003), Mark et al. (2014), and Tate et al. (2014).

The results of previous studies indicate that numerous factors, including individual, familial, and social factors are effective in the initiation of, continuity of, and relapse into drug use after treatment of this disorder (Poorshahbaz, Shamloo, Jazayeri & Ghazi Tabatabaei, 2008; Dabaghi, Asgharnejad, Atef Vahid & Bolhari, 2010; Amini, Amini, Afshar Moghadam & Azar, 2003; and Beck, Wright, Newman & Liese (2001). Clinical findings suggest that personality traits, lifestyle, social relations, attitudes, beliefs, feelings, interests, affects, and behaviors during the person's development play a key role in the formation of drug dependence (Besharat, Mirzamani Bafghi & Pourhosein, 2001; Siegle & Senna, 1997). Baher, Hoffman & Kesucian (2005) concluded that risk and protective factors are the best predictors of substance use.

## Reference

- Aaron T. Beck, Fred D. Wright, Cory F. Newman. & Bruce S. Liese (2001). *Cognitive Therapy of Substance Abuse*, translated by Goudarzi, M., Rahgoshia Publication.

- Ahmadi, Kh.; Khodadadi Sangdeh, J.; Aminimanesh, S.; Mollazamani, A.; & Khanzade, M. (2013). The role of parental monitoring and affiliation with deviant peers in adolescents' sexual risk taking: Toward an interactional mode, *International journal of High Risk Behavior Addiction*, 2(1), 22-7.
- Amini, K., Amini, D., Afshar Moghadam, F. & Azar, M. (2003). Evaluation of social and environmental factors associated with relapse into opioid use among the clients referring to governmental addiction centers in Hamedan, *Journal of Zanjan University of Medical Sciences*, 11 (45), 41-47.
- Arthur, M. W.; Hawkins, J. D.; Pollard, J. A.; Catalano, R. F.; & Baglioni, A. J. J. (2002). Measuring risk and protective factors for use, delinquency, and other adolescent problem behaviors the communities that care youth survey, *Evaluation Review*, 26(6), 575-601.
- Atashin, S. (2001). *We, Addiction, Community*. Tehran: Gohar Manzooom Publication.
- Berger, R., Pat-Horenczyk, R., & Gelkopf, M. (2007). School-based intervention for prevention and treatment of elementary-students' terror-related distress in Israel: A quasi-randomized controlled trial, *Journal of traumatic stress*, 20(4), 541-551.
- Besharat, M., Mirzamani Bafghi, M. & Pourhosein, R. (2001). The role of family variables in the creation of inappropriate applications of substance, *Journal of Thought and Behavior*, 7 (3), 46-52.
- Botvin, G. J., & Griffin, K. W. (2006). *Drug abuse prevention curricula in schools*. In Handbook of drug abuse prevention (pp. 45-74), Springer US.
- Botvin, G.J. (2004). Life skills training, Empirical findings and future direction, *Journal of Primary Prevention*, 25(2), 211-232.
- Byrne, B. M. (1994). *Structural equation modeling with EQS and EQS/Windows: Basic concepts, applications, and programming*, SAGE, Thousand Oaks, CA.
- Calvete, E., Orue, I., & González-Diez, Z. (2015). An examination of the structure and stability of early maladaptive schemas by means of the Young Schema Questionnaire-3. *European Journal of Psychological Assessment*, 29(4), 283-290, DOI: <http://dx.doi.org/10.1027/1015-5759/a000158>.
- Chin, W.W.; & Newsted, P.R. (1999). Structural equation modeling analysis with small samples using Partial Least Squares, in *Statistical strategies for small samples research*, Rick Hoyle (ed.), thousand Oaks, CA: SAGE Publications, 307-341.
- Chung, R.H. (2007). Relationship of recalled parenting style to self-perception in Korean American college student. *Journal of genetic psychology*, 164(4), 481-92.
- Cooper, S. J. & Kirkham, T. C. (2000). Opioid mechanisms in the control of food consumption and taste preferences, in A. Herz (Ed.), *Handbook of Experimental pharmacology*; 104/II, 239-262, Berlin: Springer-Verlag.
- Dabaghi, P., Asgharnejad, A., Atef Vahid, M. & Bolhari, J. (2010). Effectiveness of Group Cognitive Therapy Based on Mindfulness and Spiritual Schema Activation in the Prevention of Opioid Abuse Relapse, *Journal of Psychiatry and Clinical Psychology*, Iran (thought and action), 13 (4), 366- 375.
- Dadsetan, P. (2003). The relationship of maternal morbid symptoms with the formation of attachment and behavioral/social difficulties among preschoolers. *Journal of Psychology*, 7 (3), 233-252.
- Drug Control Headquarters (2013). *Comprehensive Document of Primary Prevention of Addiction*, Office of Drug Control Headquarters, Presidency.
- Farjad, M. (1995). *Foundations of Social Work*, Tehran: Badr Publication.

- Fatima, M.; & Ajmal, A. (2012). Happy Marriage: A Qualitative study, *Pakistan Journal of Social and Clinical Psychology*, 9(2), 37-42.
- Hawkins, J. D.; Catalano, R. F.; Kosterman, R.; Abbott, R.; & Hill, K. G. (1999). Preventing adolescent health-risk behaviors by strengthening protection during childhood. *Archives of pediatrics & adolescent medicine*, 153(3), 226-234.
- Hoseini, M. (2001). *Factors Influencing Male Students' Tendency to Drug Use from the Perspective of Students, Law Enforcement Officials, and Executive Education Professionals in the High School Program of Bojnourd*, MA Thesis, Islamic Azad University Central Tehran Branch.
- Jessor, R.; & Turbin, M. S. (2014). Parsing protection and risk for problem behavior versus pro-social behavior among US and Chinese adolescents. *Journal of youth and adolescence*, 43(7), 1037-1051.
- Kelly, E. V.; Newton, N. C.; Stapinski, L. A.; Slade, T.; Barrett, E. L.; Conrod, P. J.; & Teesson, M. (2015). Suicidality, internalizing problems and externalizing problems among adolescent bullies, victims and bully-victims. *Preventive medicine*, 73, 100-105.
- Leko, A.; Su, H. H.; Bonachea, D.; Golden, B.; Billingsley, M.; & George, A. (2006). Parallel performance wizard: a performance analysis tool for partitioned global-address-space programming models. In *Proceedings of the 2006 ACM/IEEE conference on Supercomputing* (p. 186). ACM.
- Madadi, A. & Nooghan, F. (2005). *A Course on Addiction and Substance Abuse*, Tehran: Jameenegar Publishing House.
- Madkour, A. S.; Farhat, T.; Halpern, C. T.; Godeau, E.; & Gabhainn, S. N. (2010). Early adolescent sexual initiation and physical/psychological symptoms: A comparative analysis of five nations. *Journal of youth and adolescence*, 39(10), 1211-1225.
- Mark, A. L. (2014). Weight reducing for treatment of obesity- associated hypertension nuance and challenges. *Current hypertension report*, 9, 368-372.
- Martinez, E.; Tatum, K.L.; Glass, M.; Bernath A.; Ferris, D. (2014). Correlates of smoking cessation self-efficacy in a community sample of smokers. *Addictive Behaviors*, 35(2), 175-178.
- McCarry, H.J.; Huggan, M. J.; & Martin, A.C (2002). Preventing Material distress through Communication and Conflict Management Training: A4 and 5 year following. *Journal of counseling and clinical Psychology*, 11 (3), 530 – 546.
- Mehdizadeh, H. (2015). *The Psychometric Properties of Inventory of Risk and Protective Factors for Substance Use in Adolescents*, MA Thesis, Family Research Institute, Shahid Beheshti University.
- Naderinia, G. (1999). *The study of the prevention method of the spread of drug use tendency among high school students in Markazi Province*, Education Research Council of Administration, Markazi Province.
- Nargiso J.E.; Becker B.; Wolff, J.C.; Uhl, K.M.; Simon V.; Spirito, A.; Prinstein M. (2012). Psychological, peer, and family influences on smoking among an adolescent psychiatric sample. *Journal of Substance Abuse Treatment*, 42(3), 310-18, DOI: 10.1016/j.jsat.2011.07.010.
- National Center for Biotechnology Information, (NCBI), (2010). Retrieved on <http://www.ncbi.nlm.nih.gov/mesh>.



- Pat-Horenczyk, R.; Peled, O.; Miron, T.; Brom, D.; Villa, Y.; Chemtob, C.M. (2007). Risk-taking behaviors among adolescents exposed to recurrent terrorism: Provoking danger under continuous threat? *American Journal of Psychiatry*, 164 (1), 66-72.
- Poorshahbaz, A., Shamloo, S., Jazayeri, A. & Ghazi Tabatabaei, M. (2008). Structural Relations of Psychological Risk and Protective Factors of Drug Abuse in Adolescents, *Journal of Social Welfare*, 5 (19), 31-54.
- Rafieefar, S. & Aghajani, H. (2010). *Risk-Free Life Instructions for Adolescents*, Tehran: Mehr Ravesh Publication.
- Scheier, L.M.; Botvin, G.J.; & Griffin, K.W. (2001). Preventive intervention effects on developmental progression in drug use: Structural equation modeling analyses using longitudinal data. *Prevention Science*, 2, 89-100.
- Sedigh Sarvestani, R. (1996). *Social status of families living in District 15 of Tehran*, Training Center of the Prisons Organization.
- Siegle, L. J., & Senna, J. J. (1997). *Journal delinquency theory, practice and law*, (6th. Ed.). Paol Alto, West publishing company.
- Spoth, R. L.; Gyll, M.; & Day, S. X. (2002). Universal family-focused interventions in alcohol-use disorder prevention: cost-effectiveness and cost-benefit analyses of two interventions. *Journal of Studies on Alcohol*, 63(2), 219-228.
- Sterling, K.L.; Diamond, P.M.; Mulen, P.D; pallonen, U.; Ford, K.H.; Mc Alister, A. (2015). Smoking-related self-efficacy, belief and intention; assessing factorial validity and structural relationships in 9th -12th grade current smokers in Texas. *Addictive behaviors*, 32(9), 1863-1876.
- Sussman S. (1996). Development of a school Based Drug Abused prevention curriculum for High Risk Youths. *Journal of Psychoactive Drugs*, 28(2), 169-182.
- Tareman, F. (2004). Drug Use Prevention in Children and Adolescents, *Quarterly Journal of Research on Addiction*, 2(6), 143-156.
- Tate, S.R.; Wu, J.; McQuaid, J.R.; Cummins, K.; Shriver, C.; Krenek, M.; Brown, S.A. (2014). Co-morbidity of substance dependence and depression: Role of life stress and self-efficacy in sustaining abstinence. *Psychology of addictive behaviors*, 22(1), 47-57.
- Tull, M.T., Baruch, D., Duplinsky, M., & Lejuez, C.W. (2008). Illicit drug use across the anxiety disorders: Prevalence, underlying mechanisms, and treatment, in M.J. Zvolensky & J.A.J. Smits (Eds.), *Health behaviors and physical illness in anxiety and its disorders: contemporary theory and research*, New York, NY: Springer.
- Walton, E.; & Takeuchi, D. T. (2010). Family Structure, Family Processes, and Well-Being among Asian Americans: Considering Gender and Nativity. *Journal of Family Issues*, 31(3), 301-332.

