

Factor Analysis of Factors Affecting Addiction and its Prevention in Secondary School Male Students in Hamadan

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Abstract

Background and Purpose; the main purpose of this study was to analyze the effective factors on addiction and its prevention in high school male students in Hamadan. Factor analysis was a multivariate correlational research method.

Methodology; the statistical population of this study consisted of all male secondary school adolescents in Hamadan who were 15-19 years old. 373 students were selected by simple random sampling based on Cochran formula. Measurement tools include a researcher-made questionnaire by Bagheri et al. (2005). This questionnaire consists of two parts: demographic characteristics, tendency factors and methods of drug use prevention.

Results; the validity of the questionnaire was confirmed based on the collective opinion of the experts, Cronbach's alpha coefficient (0.89) was used to determine the reliability, this indicates the appropriateness of the research instrument. The collected data were analyzed using SPSS software. The results of factor analysis indicate that: Of the 28 questions asked, 6 factors were extracted, these six factors include: family, educational, supervisory-executive, social, economic, security.

Keywords: Addiction Factors, Prevention, Students, Drugs

I. Introduction

In recent decades, the threefold increase in drug abuse has made it a global phenomenon (Mooney et al., 2006). In this global context, the trend of increasing drug abuse, especially among adolescents and young people, is of particular importance. Because with its adverse and sometimes irreparable consequences and consequences such as social damages, educational disadvantage, loss of job skills, health losses and so on, it will have a detrimental impact on the development of human resources in countries. That's why in different countries of the world, strategic plans for the prevention of drug abuse have been designed and implemented in educational settings. Among them are students' awareness of the dangers and disadvantages of drugs, increasing their life skills to prevent the spread of drug addiction (Ali Mohammadi & Shiani, 2016, 65). Increasing drug use among young people and the variety of drugs and their complications is one of the most acute health

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problems for young people. Drug abuse is one of the most serious human problems in recent years and one of the most complex human phenomena and so far no phenomenon has ever challenged man so much and for the first time in human history, we have had an epidemic that is destroying the foundations of human society and its prevention requires the application of multiple theories in different disciplines and diverse methods and techniques (Ela Verdi Pour, 2015, 22).

The three basic principles of addiction prevention (Awareness, education and counseling and awareness of the causes and effects of substance abuse and addiction), in the individual and familial (social) dimension, are one of the most important addiction prevention strategies used in the world today (Mohammadi, 2015, 99). Prevention programs can enhance protective factors among adolescents by better educating parents on family skills, appropriate psychological styles, consistent and consistent role play, and other family management skills. Parents also need to know how to reduce their feelings about socializing and financial support, examine their children for example, financial status, traffic, health care, etc. Parents can do more in their children's lives by monitoring activities, identifying friends, understanding and paying attention to them, developing consistent and orderly styles, participating in learning and teaching their children (Karen, 2013, 17). Drug addiction, as one of the major challenges in human societies, has many hidden dimensions and angles, for this reason, this issue can be considered in various respects, all of these factors have many positive and negative consequences. In this case, the annual report of the International Narcotics Control Committee indicates an increasing increase in drug trafficking and illicit drug use (Suhani, Khawaja and Mortaza, 2014, 81). Can the items of the Questionnaire of Causes of Addiction Disorder be limited to a few key factors?

II. Theoretical bases

There are many reasons why young people tend to use drugs. Some are prone to drug abuse due to lack of facilities to respond to emotional needs. The main cause of adolescents and young people's tendency to use drugs and addicts are psychological and emotional variables. People who are unable to control their emotional skills are more likely to use addictive substances (Bahraini Brojeni et al., 2014, 53). The responsibility for preventing addiction and tobacco use is not solely the responsibility of a person or team of health professionals; rather, all members of society must participate in it. A teenager can learn with responsibility and awareness, ways to prevent tobacco use and coping with the dangers of consumption, and to pass on to peers and others. If all teens become less aware of the adverse effects of cigarettes and drugs on their physical and mental health and that of their families, as well as their detrimental effects on the freshness and vitality of their faces and their relationships with friends and acquaintances, they may be less likely to do so. On the other hand, the effect of transferring the above knowledge from an adolescent to his or her peer will be greater than that of anyone (Farsad et al., 2009, 165). Following is the concept of each of the factors identified in the present study:

Community: Bruce Coen says in the definition of community: The community is; a group of people residing in a specific geographical area and sharing a common culture and lifestyle, are uniquely aware of each other and collectively pursue a goal (Tavassoli & Fazel, 2004, 193).

Training: Training is a learning-based experience and in order to bring about lasting change in the individual, to enable them to perform and improve their abilities, skills, knowledge, attitudes and social behavior. So training is about understanding change, attitudes, and interacting with colleagues. Training requires

the use of anticipated programs that reinforce staff competencies and acquire new knowledge, skills, and abilities in a way that facilitates job performance (Seyed Javadin, 2012, 434).

Family: A family is a group of people who are interconnected as a husband, wife, mother, father, brother, sister and child through marriage, inbreeding or acceptance, and share a common culture (Sarukhani, 2016, 211).

Security: Security is mainly a kind of psychological feeling that comes from being free of fear, a state of calm and reassurance. To this end, new variables are defined as time passes and changes in human expectations and needs are made. For example, an environment that was never considered, today it is considered as one of the most important disruptive factors in human security (Hindiani, 2017, 11).

Economy: Investigating different ways to use scarce community resources to produce a variety of goods and services in the community to satisfy and better meet the unlimited demands and needs of individuals in economics.

Supervision - Executive: Management professors define supervision or control as a systematic effort to achieve standard objectives, design an information feedback system, compare actual components with predetermined standards, and finally determine possible deviations and measure their value over the process of execution (Rezaian, 2012, 238).

III. Research Background

Bagheri et al (2015) in a study entitled: Causes of tendency and prevention of drug use in Kohgiluyeh and Boyer-Ahmad Province used six factors: family, educational, supervisory, executive, social, economic, security to investigate the causes of tendency and preventive measures of drug use. The results of their research show that; Education is the most important and effective way to prevent drug use. Educate the general public, especially teenagers, through mass media, especially radio and television, In this study, monitoring the behavior of children, raising parental awareness and mutual understanding of children and creating a safe and relaxing environment in the family has been identified as the most important family effective way to prevent drug abuse in youth and adolescents. Vahedi (2008) points to the logical relationship between illiteracy, poverty, unemployment, social disadvantages, as well as the lack of recreational facilities and a varied program to fill youth leisure as causes of drug abuse. Serat (1986), in a private study, describes the best ways to combat drug addiction prevention and punishment as the most effective method of preventing drug addiction. In their research, Tavousi et al. (2010) investigated the effect of theory-based educational intervention on prevention of drug abuse in adolescents; the results showed that Educational intervention promotes the desired variables including attitudes toward behavior, self-efficacy, and ultimately, intention to abstain from drug abuse. It is also stated that educational intervention is effective in increasing the intention to abstain from drug use. Kiani et al. (2016) say in their research: Adolescents' use of psychotropic substances is not a phenomenon that can be eradicated with a multi-month or multi-year program and activity, but with the experience of past years in Iran and other countries we find that: for the prevention of consumption, the only fight, control, criminalization and severe punishment will not work, rather, we need to move towards non-criminal approaches, in other words social prevention. Ela Verdi Pour et al (2015) in their research say: Peer pressure and friends' recommendation for drug use is one of the most important risk factors for youth drug abuse experiences and at no age of youth are they affected by peer pressure compared to young people and training Resistance skills, especially "Say No"

to peers' insistence play an important role in preventing drug use and numerous studies on the prevention of substance abuse have emphasized peer pressure. Amanat (2014) concludes in his research that: Most people with addiction have a low emotional bond with their family and have been rejected at least once and after being rejected, they are directed to a group of friends. Siegel (2011) shows that the stronger the network of social relationships, especially family relationships, the less likely they are to tend to drug abuse. Because the more a person's attachment to parent and adherence to school are, the less likely they are to engage in delinquent behavior, drugs, and social harm. Conversely, weak links lead to misbehavior. Gharehaghi (2012) concluded in a study entitled "Causes of Adolescent Drug Addiction": Different areas of behavior are always involved in adolescents' tendency to substance use; these include family, peers, school and community.

The purpose of this study was to analyze the factors affecting addiction and prevention of high school male students in Hamadan.

IV. Statistical population, sample and sampling method

The statistical population of this study is all male high school students of Hamadan who were educated in 2015-2016. Their ages ranged from 15 to 19 years, who studied in the three disciplines of basic sciences, engineering and humanities. Thus, out of 13622 high school male students, about 373 were obtained as the sample size of Cochran formula. Simple random sampling was used to select the samples.

V. Methods and Research Tools

This research is by nature a quantitative research, in terms of purpose, this type of research has been applied.

The tool of this study was designed by Bagheri et al (2015) in collaboration with psychologists, epidemiologists and social workers. The questionnaire consisted of two parts: demographic characteristics, causes of tendency and methods of drug use prevention. To evaluate the validity of the questionnaire, the opinions and suggestions of several expert professors were used and the necessary corrections were made based on their suggestions and comments. To test the reliability of the tool, 30 questionnaires were randomly distributed among 30 students. After collecting the questionnaires, the data were entered into the computer and by using SPSS software Cronbach's alpha; the reliability of the questionnaire was 0.89 which was a good coefficient for the present study. Descriptive statistics such as frequency, percentage, mean, standard deviation and inferential statistics such as factor analysis were used to describe and analyze the data. Factor analysis is a generic name for some multivariate statistical methods whose main purpose is to summarize the data. This method investigates the intrinsic correlations of a large number of variables and finally categorizes them into finite factors.

VI. Results

Table 1: Frequency Distribution and Percentage of Subjects by Age category, Major, Parental Education, and Number of Children in Family

Age category	Options	Frequency	Percentage
	16- 15	100	26.8
	17- 16	88	23.59
	18-17	95	25.47
	19-18	90	24.13
Major	Math	93	24.93
	Science	98	26.27
	Humanities	87	23.32
	Professional Tech	95	25.47
Parental education	illiterate	125	33.5
	High school	122	32.71
	Under graduated	126	33.7
Number of children	2 person	126	32.7
	4 people	160	43
	More than 4 people	87	23.32

The study sample consisted of 16-15 year olds in the science major, under graduated parental education, and two children in the family.

In answer to the research question, can the questions of the Questionnaire of Causes of Addiction Disorder be limited to several main factors? Exploratory factor analysis is used. Thus, in the exploratory analysis of the test, the sampling adequacy indices and the Bartlett coefficient were first calculated for the data and once the heuristic analysis capability is assured, the analysis process begins. Exploratory analysis of the test was performed using principal component analysis and varimax rotation.

Table 2: Bartlett test and sampling adequacy index

Index of sampling adequacy (KMO)	0.84
Bartlett	3049.80
Degrees of freedom	190
The significance level	0.000

Factors in the test were extracted using Principal Component Analysis (PC) and varimax cycle. In this model, 6 factors were obtained with respect to the number of eigenvalues higher than 1 (Table 2) and gravel diagram (Figure 1).

The results in the table of "Generalized Explained Variance" showed 6 factors with eigenvalues higher than 1 in this test that their eigenvalues after rotation were 4.59, 3.74, 1.84, 1.60, 1.18, 1.45 respectively.

Each of them explained 21.79, 12.39, 9.32, 8.22, 8.18, 7.41 % of the variance of the test and 64.52% of the total variance of the test variables, respectively.

The slope diagrams of the variables for this test are as follows.

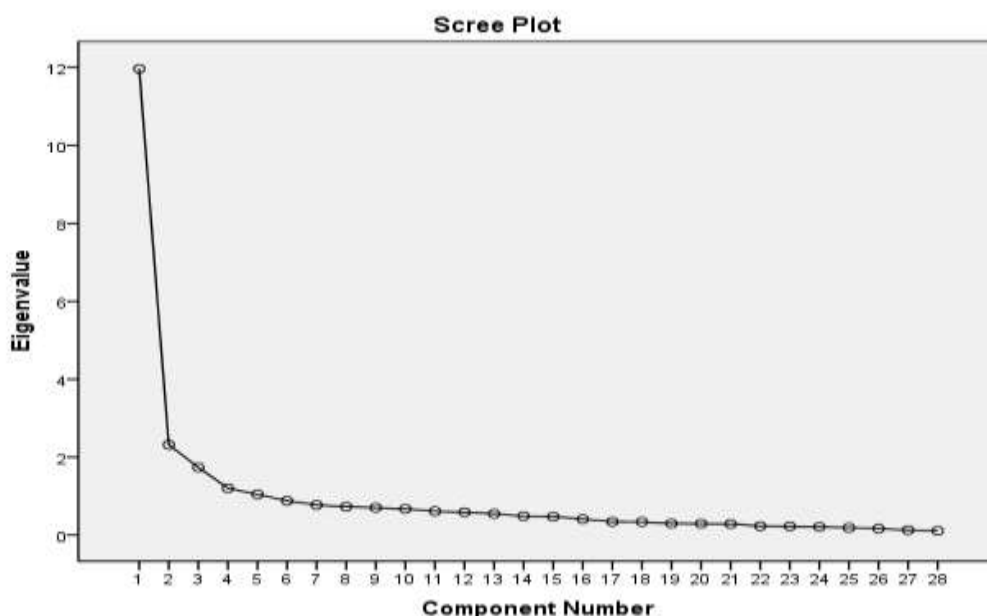


Fig 1: Slope graph of the range of test variables

Pebble test is one of the most commonly used graphical methods to select the appropriate number of agents from eigenvalues. This test shows the results in a graph, where agents or components are shown in the horizontal axis and eigenvalues in the vertical so that as eigenvalues decrease, eigenvalues also decrease. In this graph, we can use either eigenvalues greater than (1) and dots to select the appropriate number of agents. In which, the curve line declines sharply. The sharp drop in our curve line is at point 6, where we also have a sharp drop in curve, and the eigenvalue is greater than (1).

Table 3: Eigenvalues higher than 1 for the first 6 components

Components	Eigenvalues	Percentage of variance explained	Percentage of variance compression
Family	4.59	21.79	21.79
Educational	3.74	12.39	34.18
Supervisory and executive	1.84	9.32	43.50
social	1.60	8.22	51.72
Economic	1.18	8.18	59.90
security	1.45	7.41	67.31

Table 4: Factor analysis of post-rotation addiction factors

questions	F	E	sup	S	E	S
	amily	ducation al	ervation - Executive	ocial	onomy	ecurity
Parents and children awareness	.84	0				
Monitoring the behavior of children	.82	0	.79			
Safe and relaxing environment in the family	.71	0				
Increasing resistance of family members to education	.69	0			.54	0
Other cases	.63	0	.4			
Unknown	.55	0				
Parent education through social media		.44	0			
Educate the public through mass media		.71	0			.63
Training Addicts		.82	0	.54	0	
Education for teens		.72	0			
Other cases		.69	0		.47	0
Unknown		.60	0			.51
Revision of Anti-Drug Laws			.6			
Modify the supervisory and executive structure of the headquarters			.9	.5		
Reforming the structure of the judiciary			.7	.5	.48	0
Others	.60	0	.4	.6		
Creation of recreational, cultural and educational centers for leisure time				.68	0	.56
Establishment and development of				0		

counseling centers to guide people				.67		
Creating sports spaces and places				0		
				.45		
Unknown	0			0		
	.69			.83		
Creating suitable job opportunities for the unemployed			0.4		0	
			8		.67	
Serious fight against bribery, discrimination in society		0			0	
		.34			.59	
Equitable distribution of income in society					0	
					.73	
Other cases			0.4		0	
			0		.43	
Unknown	0				0	
	.36				.41	
Prevent the entry of drugs into the country			0.3			0
			8			.58
Identifying and deciding on material distribution hubs						0
						.65
Establishing special branches in the judiciary to handle drug offenders				0		0
				.44		.49
Others						0
						.36

Acknowledging that this study followed the exploratory factor analysis process and used the principal component method (PC) to extract the factors, the maximum dispersion rotation method is used and in this table we see the rotating components where each question is placed in a particular factor after rotating and the position of each question in the factor related to the factor load is specified. Finally, it was determined that there are 6 factors of factor analysis rotation for the variables of addiction and its prevention factors that are shown in the table below:

Table 5: Factor Analysis of Addiction Factor and its Prevention Factors

Factors	Index	Questions
The first factor	Family	Questions 1 to 6
The second factor	Educational	Questions 7 to 12
The third factor	supervision - Executive	Questions 13-16
The fourth factor	social	Questions 17-20
Fifth factor	Economic	Questions 21 to 25

Sixth factor	security	Questions 26 to 28
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VII. Discussion and conclusion

This study was designed to investigate the factor structure of a researcher-made questionnaire on addictive factors and its prevention in high school students. As the results of this study show, 28 items were classified into six main factors. That factors used in this research has some similarities with the researches of Bagheri et al. (2005), Tavousi et al. (2010), Mohammadi (2015), Safa (2005), Moghtarian and Hashemi (2010). Bagheri et al. (2005) used six factors in their research to prevent and prevent addiction. More emphasis is placed on the role of the family and education, they keep saying that parental awareness and understanding of children, monitoring of child behavior and safe and family-friendly environment are important factors in preventing adolescent addiction. (2010) Tawosi et al., the Role of Education in Addicting and Preventing Addictive Factors and say educational intervention is effective in increasing the intention to abstain from drug use. Mohammadi (2015) states in his research that: The low level of awareness of the causes and consequences of substance abuse and addiction among students is due to the lack of proper education and the need for more comprehensive curricula and programs by universities. Safa (2005) states in his research that: Drug availability, unemployment, poverty and economic inequalities, geographic and inappropriate housing, migration, and suburbanization are among the social factors influencing the prevention of drug use. Danae (2015) concluded in his research that: Drug access has a significant relationship with addiction tendency. This tendency is also highly correlated with social insecurity. The occurrence of drug-related offenses can be explained by the structure of the illicit opportunity. That is, in areas where there is greater ease of access to drugs, people are more likely to commit drug offenses, because in such areas, people are offered opportunities to commit crimes and as a result, social insecurity results. Mokhtarian and Hashemi (2010) say in their research: Creating suitable job opportunities for the unemployed and serious struggle, decisive bribery and discrimination in the community and equitable distribution of income in the community are among the important factors in preventing youth addiction. Overall, friends have played an important role since the first drug addiction experience by addicts and the most important place for drug addicts is with friends and out of the house. The environment for friends seems to be warmer, more intimate, and more attractive than other settings, including the family environment.

On the other hand, according to the results, a single prescription cannot be prescribed as the most important and effective method of preventing drug use among high school male students. Individual differences require a multi-dimensional solution and require the involvement of the family, the community, and all executive agencies. Educating and informing families and community members is a type of social vaccination that enhances the resistance of individuals. Youth employment and unemployment, recreation centers, sports to spend their leisure time explain life purpose that all can be effective in preventing drug use.

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