

Abstract

Objective: The aim of this study was to investigate the relationship between family-social factors and substance use through the mediating role of the components of temperament, character, psychological capital, and beliefs. **Method:** A descriptive-correlational research method was employed for the conduct of this study. All the 18-35-year-old male substance users in Qom who had presented to addiction treatment camps and Qom addiction centers in 2017 and 2018 constituted the statistical population of the present study. From among this population, the number of 320 participants was selected via convenience sampling method. Mohammadkhani's High-Risk Behaviors Questionnaire for Adults, Scale of Effective Factors in Drug Abuse Tendency among Youth, Cloninger's Temperament and Character Inventory (TCI), and Luthans Psychosocial Capital Questionnaire were the measurement instruments used for data collection in this study. The proposed model was evaluated using Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) in Amos software. **Results:** The model was revealed to enjoy desired fitness indices. Family had indirect effects on substance use through positive attitudes towards substances, self-directiveness, and resiliency. Friends had indirect effects on substance use through positive attitudes toward substances, harm avoidance, and self-directiveness. The market of substances indirectly affected substance use through the mediation of positive attitudes towards substance use. Moreover, positive attitudes towards substance use and high levels of harm avoidance had a direct and positive impact on substance use; and low levels of self-directiveness and resiliency had a direct negative effect on substance use. From among the exogenous variables, friends with the coefficient of 0.303 had the highest indirect effect on substance use; and from among the mediating variables, harm avoidance with the coefficient of 0.782 had the highest direct impact on substance use. **Conclusion:** The current findings were in line with those of similar prior studies and are considered an important step to explain the factors affecting substance use. The present findings can also be regarded as a model for the design of comprehensive prevention programs for high-risk behaviors.

Keywords: substance use, family-social factors, temperament, character, psychological capital

The Relationship between Family-Social Factors and Substance Use: the Mediating Role of Individuals' Temperament, Character, Psychological Capital, and Beliefs

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Introduction

Substance use and dependency to it can cause physical harm including malnutrition, physical illness, mortality, and suicide (Cooper, Russell, Skinner, Frone & Mudar, 2002; Schiffer, Pedersen, Broers, Widdershoven & Denollet, 2008), family problems such as divorce, abandonment, family violence, and psychological problems such as aggression, depression, stress, anxiety, and psychosomatic states (Alegría et al., 2011). Moreover, the problematic use of substances has many psychological and social consequences including failure in achieving life's goals and the increase of the interpersonal conflicts (Bondy, 1996; Sloan et al., 2011). Despite the widespread harms of substance abuse, investigating the causes of the chronic consumption of the substance is an important source of information that can develop the appropriate coping methods and interventions. Researches in the etiology of the problematic use of substances point to factors such as personality traits and also address the powerful role of the personality traits of the individuals in interacting with other environmental factors in the onset and continuation of the problematic use of substances (Dermody, Cheon & Munuck, 2014).

Over the past few years, various theories and patterns have been proposed in the area of the causes of drug abuse. These theories have examined a wide range of factors related to drug abuse including the psychological, family, and social factors. One of the theories in the area of substance abuse is the social learning theory of Bandura (2001). This theory puts emphasis on the social and interpersonal factors in explaining substance abuse. According to this theory, people gain their beliefs and attitudes about drug abuse from their close friends or their parents who are drug users. In addition to the use of substances by parents and peers, the quality of the relationship between parents and children (admission or rejection) is also of crucial important in this regard. Interaction is an essential concept in the social learning theory. The meaning of interacting is that people both influence the environment and are influenced by the environment. In this view, the social learning processes are combined with the intrapersonal characteristics such as weak coping skills, aggression, etc., and the individuals' performance is affected by a wide range of social influences. Based on the Social Drug Learning Model proposed by Simons & Robertson (1989), some environmental factors such as parental factors, deviant peers, and personal factors including avoidance coping style, self-esteem, and aggression have a direct or indirect relationship with drug abuse. Based on Sutherland's differential association, deviant behavior is taught through communication with strangers or differential association which is having social relationships with certain types of people such as criminals. Indeed, the process of learning the deviant behavior is determined by the delinquent friends (Taj al-Dini, 2017). Several studies have examined the role of personal, family, and social factors in substance abuse; in many of which the family is known as the strongest predictor. Family

relationships are of crucial importance in the onset of drug abuse and its consequences (Fish, Maier, & Priest, 2015). In the research findings of Fayyazi et al. (2015), Didarlo and Pourali (2016), Cea and Barnes (2015), Killc and Kabasakal (2015), and Şenormancı, Şenormancı, Güçlü, and Konkan (2014), the family performance has a relationship with the acceptance of addiction. If there is a problem in the emotional link and intra-family relationships, an obvious tendency to antisocial behavior and drug abuse will be apparent (Sánchez-Queija, Oliva, Parra, & Camacho, 2016). Glantz & Hartel (2002), by presenting the causal structure of the pattern of the onset of drug consumption, showed that the substance abuse is the result of a dynamic interaction between the individual and the environment. Social factors (such as the impact of friends, acquaintances, media, and advertising on the drug consumption, smoking, and lack of resistance to peer's pressure) are directly or indirectly involved in drug abuse; family factor are indirectly involved in drug abuse, and the intrapersonal factors (such as low self-esteem, high anxiety, disappointment, low level of control, and excitement) are directly involved in drug abuse (Mohammadi et al., 2011).

Jahan Shahloo et al. (2016) conducted a study on the personal, familial, and social risky and protective factors in the tendency toward substance use in the university students. They stated that the personal factors (attitude towards substance, excitement, and impulsivity), social factors (drug use by friends and the perceived access to drug), and familial factors (family monitoring and the parents' attitude towards substance) are the best predictors of drug use tendency in university students respectively. The results of Ghanbari Zarandi, Mohammad Khani and Hasheminasab's (2016) study also indicates that family, social, and school-related factors directly and indirectly predict drug use through self-control skills and social skills (individual and social skills). Harakeh & Vollebergh (2012) stated that deviant peers are another strong predictor of drug abuse. The results of Botvin & Griffin (2004) showed that there is a relationship between the specific attitudes and beliefs about substance use and the onset of drug use. The results of some other studies have also emphasized on the role of parents' attitudes in the tendency of young people to use drugs; they have shown that parents' attitudes are influential in the onset and the continued use of drugs by their children. Khalili (2007) suggested that one of the most important factors in addiction is the availability of substances. That study revealed that the highest experience of drug use was related to cigarette and opium with values of 98% and 58% respectively. The majority of people who have the problem of substance use have distinctive personality characteristics. These intrinsic and specific features gradually expand the path of drug use; in other words, people who have vulnerable personality traits are more susceptible to substance abuse (Owraki, Makri, & Kiyaei, 2013; Le Bon et al., 2004; Arnau, Mondon & Santacreu, 2008). Cloninger, on his own scale, has defined two dimensions for personality: the dimension of temperament which is the biological component

of the personality and consists of four subscales of novelty seeking, harm avoidance, reward dependence, and persistence; and the character dimension that is the social and cultural component of the personality and includes the subscales of self-directiveness, self-transcendence, and cooperativeness (Cloninger, 1987). Studies show that negative behaviors of parents have a relationship with high harm avoidance and low self-directiveness in adulthood (Reti et al., 2002; Takeuchi et al., 2011). The environment and parental care have a relationship with harm avoidance because the children learn the high levels of using harm avoidance to adapt to threatened situations (Taylor et al., 2011).

Leventhal et al. (2007) showed that individuals with high levels of harm avoidance about avoiding smoking reported more negative effects and higher consumption motivation in distress situations. Evren, Evren, Yancar & Erkiran's (2007) study revealed that drug-dependent patients had lower self-directiveness and persistence scores in terms of character dimensions. According to the results of the research conducted by Haghshenas, Gholamali Lavasani, and Fathabadi (2017), there was a significant difference between the two drug dependent and non-dependent groups for harm avoidance and self-directiveness ($P < 0.01$). Based on Abolghasemi, Kiyamarsi, and Momeni's (2013) research, the mean score of harm avoidance and novelty seeking among the addicts was higher than non-addicts. Moreover, the mean score of reward dependency, cooperation, and self-directiveness in addicts were lower than non-addicts.

There have also been several studies on substance abuse based on the psychological capital. The psychological capital is a hybrid and interconnected structure including four perceptual-cognitive components of hope, optimism, self-efficacy, and resiliency. Parents and friends play a key role in promoting resiliency. Furthermore, Sheikhi Fini et al. (2010) and Nazari et al. (2012) achieved similar results in their studies. Parastoo (2013) in a study among 764 adolescents in Tehran found that improving the resiliency of adolescents plays a role in regulating the tendency towards smoking. Another research showed that people with high resiliency had better health status, higher self-esteem, and more parental support; they are also less likely to be exposed to drugs (Buckner, Mezzacappa & Beardslee, 2003). Moreover, based on the findings of Fredrickson, Tugade, Waugh & Larkin (2003), resiliency is associated with positive feelings and acts as a protective factor in the tendency toward drug use.

With regard to the above-mentioned points, various psychological, social, and biological factors are involved in drug use; however, none of them can explain the causes of this phenomenon by itself (Franques, Auriacombe, & Tignol, 2000). Since most studies carried out in this regard are related to the students and adolescence. There is a lack of research on the causal factors of drug use in young people and there is a need for designing and implementing the preventive program based on the scientific data, the social learning theory of Bandura (2001), Sutherland's differential association theory (1973), the pattern of the onset of substances use by Glantz and Hartley (2002), individual,

psychological, familial, and social factors proposed by Ghanbari Zarandi, Mohamadkhani, and Hasheminasab (2016), and the consideration of the character and temperament features of Cloninger’s biological-social theory and the Luthans’ psychological capital. Thus, this research attempts to provide a comprehensive causal-based model of drug use and to evaluate its fitness. In the present study, we try to investigate the relationship between family-social factors and drug use through the mediating role of the components of temperament, character, psychological capital, and beliefs. In fact, this research has been carried out in order to test the structural model of Fig. 1.

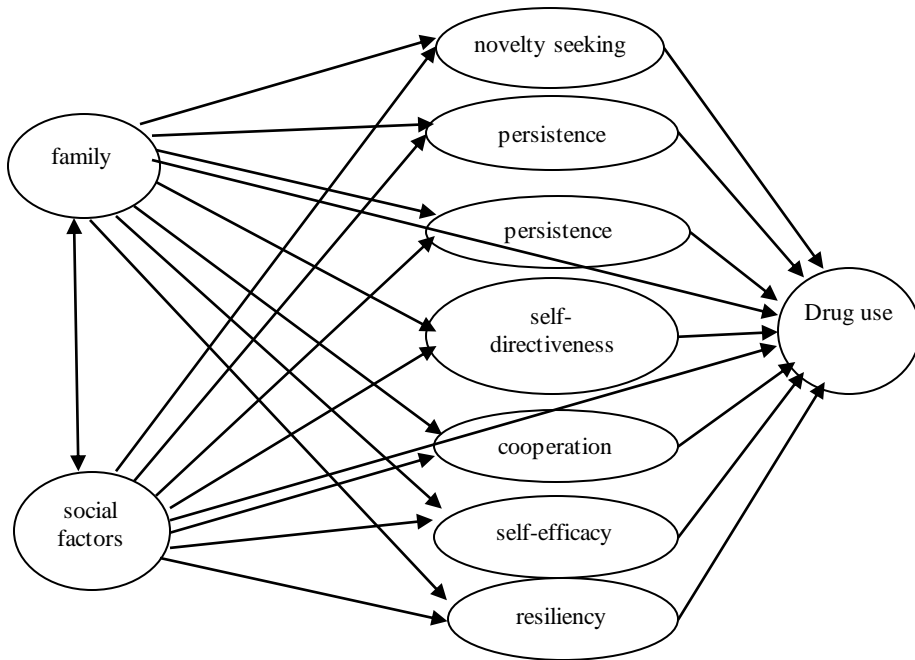


Figure 1: The Proposed Model of Factors Affecting Substance Use

Method

Population, sample, and sampling method

The current study is a descriptive-correlational study and of structural equation modeling and confirmatory factor analysis type. It attempts to observe and evaluate the internal relationships of the variables. The statistical population of the study consisted of the 18-35-year-old male substance users in Qom who had presented to the addiction treatment camps and Qom addiction centers in 2017 and 2018. Since there were 31 estimation parameters in this study, in order to consider at least 10 people for each parameter, a sample of 320 people was selected via the convenience sampling method from among the statistical

population. Considering the sensitivity and the importance of the study and the necessity of attracting the participants' satisfaction and trust to cooperate in the research in an honest way, before the completion of the questionnaires, they were informed them about the nature and purpose of the questionnaire. They were also explained by emphasizing on the confidentiality, anonymity of information, and the observance of the anonymity principle.

Instruments

1. High-Risk Behaviors Questionnaire for Adults: This questionnaire (adapted from a questionnaire of the Center for the Prevention of High-risk Behaviors) was designed by Mohammad Khani (2006); it measures the prevalence of high-risk behaviors during the lifetime, the last 12 months, and the last month. It also measures the tendency to use a variety of substances in the future. Mohammad Khani (2006) reported its reliability to be 0.87. Its internal consistency coefficient in the study conducted by Anbari and Mohammad Khani (quoted by Mohammad Khani, 2007) based on Cronbach's alpha was 0.87. Some questions were excluded due to the lack of use in this study; 9 items including cigar, hookah, alcohol drinks, cannabis, opium, heroin, crack, glass, and tramadol, or the performance enhancing substances (doping drugs) were questioned; the minimum and the maximum of the total score of the prevalence of high-risk behaviors is 0 and 54 respectively. The higher the score, the higher the amount of substance used by the individual would be. In the current study, Cronbach's alpha coefficient was 0.44. This questionnaire was used to evaluate the drug use.

2. Scale of Effective Factors in Drug Abuse Tendency among Youth: This questionnaire has 78 items and has been developed and standardized on a sample of 408 young addicts (16 to 29 years old) in Khorasan Razavi by Mohammadi, Pourghaz and Raghیب (2013). In this scale, the individual factors have 7 subscales including positive attitude to substances, personality and psychological problems such as depression, aggression, anxiety, intolerance of failure and nonfulfillment, curiosity and lack of religious beliefs; the interpersonal and environmental factors have 3 subscales of family, friends, and school; social factors has 4 subscales of lack of cultural, sport, and recreational facilities, industrial development and economic and social deprivation, lack of access to service, supportive, and advisory systems, and the narcotics market in Iran. The response of each item is scored 1 to 5. High scores in each of these components indicate the presence of the threatening factors. The face and content validity of the scale was confirmed by the psychologists and sociologists. Furthermore, in order to evaluate the construct validity, a second-order confirmation factor analysis was used. This questionnaire examines the three components of individual, interpersonal and environmental, and social factors. Using the Cronbach's alpha coefficient, the reliability of this scale has been estimated to be 0.94. In the present study, the Cronbach's alpha coefficient for

the subscales was 0.72 to 0.79. This questionnaire was used to measure the family-social factors.

3. Temperament and Character Inventory (TCI): The instrument used to measure the temperament and character is a questionnaire of the Cloninger's Temperament and Character Inventory containing 125 sentences that the person completes the test with the true-false responses to the options. Scores are 1 and 2, and some questions are scored in reverse order. It has four scales of temperament including novelty seeking, harm avoidance, reward dependency, and persistence; it has also three scales of character including cooperation, self-directiveness, and self-transcendence. This test was first used by Kavyani in Iran, and the reported reliability coefficient for the Iranian version is as follows: 0.96, 0.91, 0.61, 0.76, 0.95, 0.95, 0.85, and 0.88 for novelty seeking, harm avoidance, reward dependency, persistence, cooperation, self-directiveness, and self-transcendence respectively (Kavyani, 2007). In this study, the Cronbach's alpha coefficient for the subscales counts was estimated to be 0.79 to 0.84.

4. Luthans et al.'s the Psychosocial Capital Questionnaire: This questionnaire uses questions that measure the components of hope, resiliency, optimism, and self-efficacy. It includes 24 items and each subscale contains 6 items on a 6-point Likert scale. In order to obtain a score for the psychological capital, first, the score of each subscale is obtained separately, and then its total score is considered as the total score for the psychological capital. The score is 0 to 5; the minimum score for each subscale is 0 and the maximum is 30. The high score in these components indicates high degree of hope, resiliency, self-efficacy, and optimism. The chi-square ratio of this test is equal to 24.6 and the CFI and RMSEA statistics were 0.97 and 0.08 respectively (Luthans et al., 2007). In the study conducted by Bahadori Khosroshahi, Hashemi Nosratabad, and Babapour Kheiraddin (2014), its reliability was estimated to be 0.85 according to the Cronbach's alpha. In this study, the Cronbach's alpha coefficient for resiliency was 0.77.

Results

Based on the results of the present study, among 320 peoples of the sample, the mean and standard deviation of the age group were 28.79 and 4.384. Out of the total number of 320 substance users, the minimum score of drug use for each individual was 6 and the maximum was 54, the mean of substance use score was 36.56 and the standard deviation was 10.217. The descriptive statistics for age and substance use is presented in Table 1.

Table 1: Descriptive Statistics for Age and Substance Use in the Sample Group

<i>Variables</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>
Age	320	18	35	28.79	4.38
Substance use	320	6	54	36.56	10.21

Furthermore, 50% were married and 50% were single, 55.6% were employed and 44.4% were unemployed. In the family of 45.3% of the drug users, no one

was using substances except for the respondent. However, 54.7% stated that there are at least one or more substance users in their families. The percentage of illiterate people was 2.5%, 45.9% had primary and secondary education, 26.6% had high school degree, 16.6% had diploma, and 8.4% had a degree higher than diploma. In this study, the scoring of drug use in the lifetime was from 0 to 6; the 0 score indicates that the individual has never used the drug and the score of 6 shows the highest amount of drug use. The results revealed that the highest drug use in the lifetime was related to smoking with the mean of 5.92 out of 6, then opium with the mean of 5.51, heroin with the mean of 4.48, hookah with the mean of 4.17, glass with the mean of 4.29, alcoholic drinks with the mean of 3.63, cannabis with the mean of 3.35%, tramadol or performance enhancing substances (doping drugs) with the mean of 2.77%, and crack with the mean of 2.44%. The results showed that there was no one who used the substance but never used the cigarettes. In addition, 52.8% of the people had the first experience of smoking at the age of 15 or earlier. The table for the onset of first substance use shows that 52.8% of the people used cigarette, 32.5% used hookahs, 27.2% consumed opium and alcoholic drinks, 7.8% used heroin, 5.9% used tramadol or performance enhancing substances (doping drugs), 1.3% consumed glass, and 2.5% used crack at the age 15 or earlier. Descriptive statistics for the age of the onset of drug use is presented in Table 2.

Table 2: Descriptive Statistics for the Age of the Onset of Substance Use

<i>Substance</i>	<i>Never</i>	<i>=<15</i>	<i>16</i>	<i>17</i>	<i>=>18</i>	<i>Never</i>	<i>=<15</i>	<i>16</i>	<i>17</i>	<i>=>18</i>
Cigarette	0	169	45	41	65	·	52.8	14.1	12.8	20.3
Hookahs	35	104	45	41	95	10.9	2.5	14.1	12.8	29.7
Alcoholic drinks	61	87	25	44	103	19.1	27.2	7.8	13.8	32.2
Cannabis	85	58	42	36	99	26.6	18.1	13.1	11.2	30.9
Opium	5	87	28	42	158	1.6	27.2	8.8	13.1	49.4
Heroin	69	25	19	23	185	21.6	7.8	5.9	6.9	57.8
Crack	158	8	10	17	127	49.4	2.5	3.1	5.3	39.7
Glass	70	10	4	23	214	21.9	3.1	1.2	6.9	66.9
Tramadol or performance enhancing substances (doping drugs)	116	19	12	27	146	36.2	5.9	3.8	8.4	45.6

The Kolmogorov-Smornov test was used to check the normal distribution; the results are illustrated in Table 3.

Table 3: Results of Kolmogorov-Smirnov Test for Normal Distribution of the Variables

<i>Variables</i>	<i>Family</i>	<i>Friends</i>	<i>Drug market</i>	<i>Positive attitude to drugs</i>	<i>Harm avoidance</i>	<i>Self-directedness</i>	<i>Resiliency</i>	<i>Drug use</i>
Z	1.284	1.341	1.708	1.098	1.311	1.309	1.069	1.347
Sig.	0.074	0.055	0.006	0.185	0.065	0.066	0.203	0.053

According to the results of Table 3, it can be observed that, except for the variable of the drug market, other variables have a normal distribution. Additionally, the levene's test was used in order to test the homogeneity of variances for the variables; except for the self-directedness variable, other variables had a significant level of higher than 0.05. The descriptive statistics and correlation matrices of the studied variables are presented in Table 4.

Table 4: Descriptive Statistics and Correlation Matrices of the Studied Variables in the Sample

Variables	Mean	SD	1	2	3	4	5	6	7
1.family	24.51	6.735	1	-	-	-	-	-	-
2.friends	19.40	4.585	0.329**	1	-	-	-	-	-
3.The drug market	18.52	4.956	0.301**	0.392**	1	-	-	-	-
4.The tendency to substances	22.91	4.380	0.405**	0.498**	0.380**	1	-	-	-
5.Novelty seeking	26.78	2.925	0.345**	0.266**	0.306**	0.268**	1	-	-
6.Harm avoidance	20.25	2.145	-0.051	0.126*	-0.012	0.073	0.137*	1	-
7.reward dependency	17.67	2.525	-0.055	-0.098	-0.076	-0.172**	-0.171**	-0.228**	1
8.persistence	7.18	1.572	-0.255**	-0.179**	-0.149**	-0.171**	-0.342**	-0.035	0.117*
9.self-directiveness	18.95	3.404	-0.290**	-0.267**	-0.231**	-0.220**	-0.442**	-0.056	-0.046
10.cooperation	22.78	3.520	-0.501**	-0.337**	-0.228**	-0.307**	-0.351**	-0.013	0.177**
11.self-transcendence	14.17	2.177	-0.163**	-0.083	-0.013	0.008	-0.218**	-0.179**	0.237**
12.self-efficacy	15.59	7.057	-0.348**	-0.199**	-0.127*	-0.128*	-0.252**	0.035	-0.002
13.hope	14.35	6.387	-0.348**	-0.201**	-0.160**	-0.159**	-0.240**	-0.032	-0.045
14.resiliency	13.69	6.586	-0.264**	-0.170**	-0.128*	-0.086	-0.202**	-0.121*	0.032
15.optimism	15.71	6.593	-0.378**	-0.205**	-0.135**	-0.124*	-0.203**	-0.005	0.015
16.lifetime consume	36.56	10.27	0.154**	0.242**	0.101	0.270**	0.181**	0.231**	-0.146**

Continued Table 4: Descriptive Statistics and Correlation Matrices of the Studied Variables in the Sample

Variables	8	9	10	11	12	13	14	15
8. Persistence	1	-	-	-	-	-	-	-
9. Self directiveness	0.428**	1	-	-	-	-	-	-
10.Cooperation	0.461**	0.428**	1	-	-	-	-	-
11. self-transcendence	0.400**	0.183**	0.504**	1	-	-	-	-
12. Self-efficacy	0.302**	0.334**	0.493**	0.268**	1	-	-	-
13. Hope	0.335**	0.357**	0.359**	0.234**	0.679**	1	-	-
14.resiliency	0.393**	0.333**	0.341**	0.277**	0.597**	0.650**	1	-
15.optimism	0.366**	0.329**	0.529**	0.327**	0.646**	0.697**	0.651**	1
16.lifetime consume	-0.169**	-0.293**	-0.158**	0.030	-0.227**	-0.184**	-0.307**	-0.190**

*P<0.05, **P<0.01

As illustrated in Table 4, there is a positive relationship between substance use in lifetime and the chaotic family, deviant friends, positive attitudes towards substance, novelty seeking, and harm avoidance. Moreover, there is a negative relationship between life-long drug use and reward-dependence, persistence, self-directiveness, cooperation, self-efficacy, hope, resiliency, and optimism. In order to evaluate the proposed model, the relationships between the variables were estimated using the structural equation modeling. The fitting results of the model are presented in Table 5.

Table 5: The Goodness-of-Fit Indices for the Proposed Model

Measures	χ^2	df	Sig.	CMIN/DF	RMSEA	NFI	CFI
Obtained	19.424	13	0.111	1.494	0.039	0.954	0.984
Acceptable level	-	-	Higher than 0.05	Lower than 3	Lower than 0.08	Higher than 0.90	Higher than 0.90

Considering these measures shown in Table 5, it can be stated that the tested conceptual model of the present study is well fitted. The tested model for this study has been reported in Figure 2.

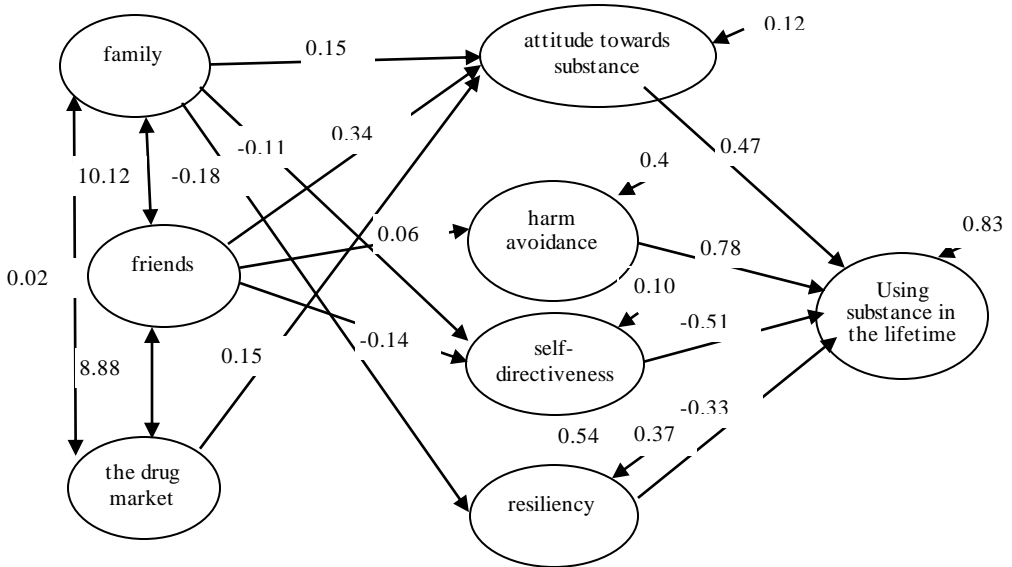


Figure 2: The Tested Model of Substance Use in the 18-35-Year-Old Individuals

The direct and indirect impact factors are presented in Table 6.

Table 6: The Direct, Indirect, and Total Impact Factor for the Factors in the Model

Paths	Direct impact	Indirect impact	Total impact
Family to the positive attitude to the substances	0.155	--	0.155
Family to self-directedness	-0.115	--	-0.115
Family to resiliency	-0.179	--	-0.179
Family to the lifetime use	--	0.21	0.21
Friends to the positive attitude to the substances	0.338	--	0.338
Friends to harm avoidance	0.059	--	0.059
Friends to self-directedness	-0.143	--	-0.143
Friends to the lifetime use	--	0.303	0.303
Drug market to the positive attitude to the substances	0.150	--	0.150
Drug market to the lifetime use	--	0.071	0.071
Self-directedness to the resiliency	0.541	--	0.541
Positive attitude to the substances to the lifetime use	0.475	--	0.475
Harm avoidance to the lifetime use	0.782	--	0.782
Self-directedness to the lifetime use	-0.507	--	-0.507
Resiliency to the lifetime use	-0.334	--	-0.334

Discussion and conclusion

The research findings showed that considering the goodness-of-fit of the designed structural model, this model is a good predictor for substance use. The results revealed that family and social factors such as friends and the drug market have an indirect structural effect on the substance use. Moreover, among the mediating variables, some of the harmful personality traits such as harm avoidance and self-directedness have a direct structural effect on the substance use; among the psychological capital factors, the factors of resiliency and positive attitude toward drug use have also a direct structural effect on the substance use. In the current study, the factor of family has an indirect structural effect on the substance use with the mediating role of positive attitude toward substance, self-directedness, and resiliency; it is consistent with Bandura's social learning theory (2001), the findings of Fish et al. (2015), Fayyazi et al. (2015), Didarloo and Pourali (2016) Kia et al. (2015), Killc et al. (2015), Şenormancı et al. (2014), Sánchez-Queija et al. (2016), Glantz and Hartel (2002), and Ghanbari Zarandi et al. (2016). In this study, the increase in the score of the familial unorganized and rejecting factors, the substance use also increases. In explaining the present findings, it can be stated that according to the report of Center for Substance Abuse Prevention (2001), family factors have a significant effect on the tendency of young people to use drugs; among the most important factors are weak family monitoring, weak connection with the family, family conflicts, and the parents' positive attitudes to substances. Children are influenced by the thoughts and beliefs of the family and the parents' positive attitudes to substance will undoubtedly be transferred to the children. The theory of family interaction emphasizes on the link between the child and parents as the most important protective factor and also puts emphasis on the three aspects of parenting as the most important conditions for the education and training of healthy children: positive and stable emotional link, setting firm and flexible rules and regulations, and psychological autonomy (Lezzin et al., 2004; Jessor & Jessor, 1997). Research conducted by Reti et al. (2002) and Takeuchi et al. (2011) indicated that there is a relationship between the parents' negative behaviors and low self-directedness at adulthood; and low levels of self-directedness have a relationship with the high levels of behavioral problems and drug addiction. Furthermore, the growth and spread of resiliency in young generation would be possible as a result of adequate attachment to the family and it is necessary to deal with the risky tendencies. Thus, the family can indirectly influence the substance use by mediating the attitude toward the substances, self-directedness, and the resiliency of children.

According to the results of the present study, among social factors, the factor of friends with the mediation of positive attitudes towards substances, harm avoidance, and self-directedness had an indirect structural effect on the substance use. It is in consistency with Bandurra's Social Learning Theory (2001), Sutherland's Differential Association (1973), the research findings by

Harakeh et al. (2012), Glantz and Hartel (2002), and Ghanbari Zarandi et al. (2016). Research findings show that the parent-child interaction decreases and the parental monitoring is reduced by increasing the family conflicts. Therefore, with the reduction of the parental supervision, adolescents are more influenced by the deviant peers, and are more likely to be involved in the general behavioral problems (such as antisocial behaviors, high-risk sexual behaviors, educational failure, and drug abuse) (Javadi et al., 2011). If Adolescents and young people tend to deviant friends, they will be exposed to several damages, because the addicted friends increase the availability and the opportunity of drug use. On the other hand, the exposure to peers with positive beliefs, attitudes, and behaviors to substance use, serves as a susceptible environment and leads the person to use drugs. In addition, "proximity leads to similarity." And we should not accept this false belief that "I have an addicted friend, but I am not using drugs" (Narenjiha, 2015). Obviously, according to the social learning patterns, the individual learns and uses the false behaviors of friends, relatives, and peers. They learn from each other the ways of avoiding harms associated with addiction and use the false self-directedness methods in coping with the problems.

Furthermore, among the social factors, the factors of the drugs market and the accessibility with the mediation of positive attitude toward substance has an indirect structural effect on the substance use; it is in agreement with the findings of Glantz and Hartel (2002), Jaharen Shahloo et al. (2016), Ghanbari Zarandi et al. (2016), and Khalili (2007). According to the study conducted by Khalili (2007), the highest experience of drug use was related to cigarettes and then to opium; since the access to cigarettes is easier than other substances, this issue can confirm the role of the drug market in substance use. In justifying the impact of the social environment such as the easy access to drugs on increasing the high-risk behaviors among young people, the social ecology model can be used. According to this theory, living in unorganized social environments not only increases the access to the illegal substances and consequently substance use, but also these environments are associated with some unusual factors and attributes. For example, relationship with deviant peers, the existence of abnormal social factors, and the observation of inappropriate behavior patterns that facilitate the individuals' tendency toward risky behaviors.

Among the mediating variables, it was observed that the positive attitude toward the substance has a direct structural effect on the substance use. This finding is consistent with the findings of Botvin and Griffin (2004). The current finding is in agreement with the results of the studies that consider the positive attitude to substances as the most important predictor factor in drug use; those studies also indicate that the adolescents who think of the benefits of using drug more than its negative consequences, are at the risk of drug use and are more likely to consume drugs (Center for Substance Abuse Prevention, 2001; Kenny, Hansen & McNeal, 2000; Mohammad Khani, 2007). According to Botvin (2000), the probability of consumption of and the tendency to drug is far greater

in people who have a positive or neutral attitude toward substances. The person will be more at risk of consumption if he has a positive attitude to the substance or false beliefs such as "the substance leads to relaxation, I'm not addicted, one-time use is not a problem, the withdrawal is easy, substance can be used as a healing, cigarette smoking has not something to do with addiction"(Narenjiha, 2015).

The results showed that high levels of harm avoidance has a direct structural effect on drug use, which is consistent with the findings of Leventhal et al. (2007), Haghshenas et al. (2017), and Abolqasemi et al. (2013). Highly avoidance of harm, which is characterized by the escape and avoidance of risky situations and being cautious and isolated, acts as a barrier against the addiction and excitability symptoms. By using substances, these people have acquired false self-esteem and act with paying no attention to the consequences of harmful behaviors. Low levels of harm avoidance features, such as self-confidence versus uncertainty, leads to a lot of effort with the minimal discomfort for a person. The disadvantage of this state is the lack of response to the risk and the unrealistic optimism; the potential outcomes of its risk are in the situations where there is a high risk, and it is fully in line with the increase of symptoms such as the excitability and impulsivity of the addicts (Zuckerman, 1993). In explaining this issue, it can be stated that those who gain higher score in harm avoidance cannot control themselves and thus the likelihood of drug use is higher for them. In addition, these people follow the lifestyle of "being cautious". One of the participants who was both a drug user and a drug seller, said: "I have been using and selling drugs for eight years, however, I have not slept even one night in my house during these eight years". This indicates being cautious and is an escape and running away to avoid his arrest. In fact, the harm avoidance of these people has changed, i.e., they scare of the arrest rather than being scared of the drug itself. In the current study, the low levels of self-directedness had a direct structural effect on the substance use which is consistent with the findings of Evren et al. (2007), Haghshenas et al. (2017), Abolqasemi et al. (2013). In this regard, it can be stated that the low levels of self-directedness in these individuals, based on the neurological approaches, indicates the concept of escape and response inhibition; this issue puts the drug addicts more at the risk of impulsivity and behavioral problems (Biederman et al., 2008). Low levels of self-directedness have a relationship with high levels of behavioral problems, impulsivity, anxiety / depression, attention problems, behavioral problems and violent behaviors in the addicts.

Moreover, the results showed that the low levels of resiliency have a direct structural effect on the substance use; it is consistent with the findings of Parasto (2013), Buckner et al. (2003), and Fredrickson et al. (2003). In this regard, it can be stated that the individuals with high levels of resiliency have more power to control their impulses and this reduces their tendency toward addiction. Individuals with low resiliency lose their motivation when faced with problems;

they are not flexible toward the life's changes and are always in fear. As a result, they tend to the substance use in the threatening situations. In the times of crisis, they feel stress and imagine themselves as a victim and a helpless person and are not able to achieve safe and secure solutions by using problem-solving techniques (Ghanbaritalab & Fooladchang, 2015).

The results revealed that the interpersonal/ psychological factors such as positive attitude towards substances, high levels of harm avoidance, self-directedness, and low resiliency can play a mediating role in the relationship between family-social factors and drug use. In other words, the individual /psychological factors regulate the effects of family-social variables and cause the family-social factors to indirectly affect the substance use.

One of the limitations of the present study is related to its implementation in Qom, where the generalizations to other communities should be carried out with caution. It is suggested that similar studies be conducted in different societies and provinces with respect to age, gender, and educational levels. Furthermore, research on those who have not started the withdrawal can provide more reliable results. Moreover, according to the obtained results, it is recommended that the necessary trainings on how to communicate with children and to create a positive and emotional connection with them as a protective factor for parents be held; necessary actions should also be taken in terms of creating a negative attitude toward substances, modifying negative and neutral attitudes and beliefs, developing self-directedness, and increasing resiliency among parents and children.

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