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**PREDICTING TEENAGERS TENDENCY TO ADDICTION BASED ON
PERSONALITY PROPERTIES AND DEMOGRAPHIC FACTORS IN
ORDER TO PRESENT A MODEL FOR PREVENTING FROM
ADDICTION IN ADOLESCENTS**

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ABSTRACT

The object of this study was to present a model for predicting the tendency to addiction from personality characteristics and demographic factors in adolescents. The study was a survey one. The sample was 500 high school students from the city of Qazvin. The students were selected randomly and completed (personality Neo, attitude towards addiction, and demographic) questionnaires. To analyze the data, Pearson correlation and multiple regression were used. Results indicated that there is a significant relation between neuroticism, conscience and openness experience with attitude towards addiction of the students. Also, results indicated that there is a significant relationship between neuroticism & openness experience of the female students with attitude towards addiction. Meantime there is a meaningful relationship between conscience & extroversion of the male students with attitude towards addiction, and also between demographic factors (place of residence) with attitude towards addiction. Finally, results indicated urban boys had shown high tendency to addiction compared to rural boys. According to these results there is a significant relationship between personality characteristics and place of living with boy and girl students' attitude towards addiction, therefore it can be effective in prevention from addiction.

Keywords: *Adolescents, Personality Characteristics, Demographic Factors, Attitude*

INTRODUCTION

Drug abuse during adolescence and early adulthood is still a key issue in public health of communities (Adam *et al.*, 2012). Teenagers are more vulnerable to addiction than other age groups as groups which are in danger and Iran has maximum number of teenagers, therefore it is necessary that schools and parents care about prevention from addiction, since teenagers are present in school and family and family's role can not be denied as a model and continuous advisor. Addiction is a big health issue, it is a social disaster with various economic, political, cultural, psychological, moral and legal aspects.

Plans for prevention should be made within framework of formal books of elementary school and high school and risks of using drugs should be taught to students. The plans should be in form of formal and main lessons and should include following topics; training behaviors approved by academic scientific position, teaching right social communication, and training self-trust. The aim of the research is to review specifying personality properties, risky social factors (place of living and social and economic position of parents) in predicting teen's tendency to addiction. Previous studies indicate lack of appropriate personality properties during adolescence can set the stage for tendency to addiction (Hossaini, 2008). Personality properties are constant and originate from childhood, therefore measures of prevention from addiction should be taken since childhood in family.

According to results of researches of McCrae and Costa, different personality factors have had key roles in tendency to drugs and process of addiction formation. Regarding positive attitude towards drugs and according to results of the researches, we can argue that in a classification on students' attitude it became evident that only 2 % have positive attitude towards drugs while their point of view is 76 % negative and 23 %.

According to estimations, level of addiction outbreak among students is nearly 1 %. This statistic is not that minor, it shows that level of drug abuse among university students across Iran is less compared to other age groups or even students.

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Taking research results into accounts regarding variables mentioned, personal observation of the researchers in interview with students and their parents, worry of their family regarding factors which specify tendency to addiction, all made researcher present a model regarding predicting tendency to drug abuse in teenagers according to prediction variables mentioned.

MATERIALS AND METHODS

Society, Sample and Sampling Method

current research plan is survey one. Statistical society of the research includes boy and girl high school students from Qazvin City during 2013-4. Sampling was conducted using multistage clustering sampling method where 500 subjects were selected randomly.

Tools

Tool of gathering data was questionnaire including Neo revised personality questionnaire (60 questions), demographic factors questionnaire and questionnaire of tendency to addiction (32 questions).

1. Neo Personality Questionnaire: In this research, Neo test short-form personality questionnaire was used. The questionnaire has 60 questions which were designed for assessing 6 main criteria of neuroticism, extroversion, openness to experience, agreement and conscience. Scoring of the questionnaire was based on Likert ratio (fully disagreed, disagreed, agreed and fully agreed). Short-form scoring is not the same in all cases. In some cases, fully disagreed received score 4, disagreed received 3, indifference received 2, agreed received 1 and fully agreed received score 0. While some other materials of the short form are scored in opposite form (Farshi, 2001). Validity and reliability of the test were reported as appropriate.

In normalization of test NEO which was conducted by Garousi Farshi on a sample with 2000 subject among university students of Tabriz and Shiraz medical sciences universities, correlation coefficient 5 reported main dimensions between 0.56 to 0.87.

Cronbach alpha coefficient in each of main factors of neuroticism, extroversion, openness, compatibility and conscience was 0.86, 0.73, 0.56, 0.68 and 0.87, respectively. To study content validity of the test, correlation between two forms of personal report (S) and observer assessment form (R) was used where maximum correlation was 0.66 in Extroversion factor and minimum level was 0.45 in compatibility factor (Farshi, 2001).

2. Researcher-Made Questionnaire: To achieve subjects' demographic information, a researcher-made demographic questionnaire was designed including following questions: sex, economic condition of parents, subjects' place of living, and education level of parents.

3. Questionnaire of Tendency to Addiction: The questionnaire was made by Nazari including 32 questions. They were scored in Likert form. Regarding favorable contents or positive tendency to addiction, each response of fully agreed, disagreed, no comment, disagreed, fully disagreed received scores of 1, 2, 3, 4, and 5, respectively. Regarding contents of unfavorable or negative attitude towards addiction, scoring was done in reverse sequence.

In this questionnaire, receiving higher score indicates appropriate attitude towards addiction and drug abuse. Studying psychometric, correlation between questionnaire was reported 0.60 using Spearman-Brown formula. In estimating questionnaire validity using Cronbach alpha coefficient, consistency of test was reported 0.65 (Amoupour *et al.*, 2007). Also, in another research balanced form, reliability and internal consistency of the test had been calculated as 0.89 by Cronbach alpha coefficient which was approved from aspect of psychometric criteria. Likewise, content validity of the test was approved by several experts in psychology and psychiatry which is an appropriate tool.

RESULTS AND DISCUSSION

Results

Data were analyzed using Pearson correlation statistic tests and multivariable regression.

Students are the same from sex aspect (51.1 against 48.9). Students' score for attitude towards addiction was 51.8 negative and 48/2 positive.

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Question 1: attitude towards addiction in students can be predicted according to personality properties and styles of demographic factors.

1. Model in Brief

Sig	Freedom degree	Nagelkerke R square	Cox and Snell R square	Chi-square
0.325	8	0.692	0.516	9.210

According to values we have, it can be concluded that the model can predict between 51.6 % and 69.2 % of criterion variance; participants` attitude. Also, according to value of Chi-square(0.210) with significance level which is more than 0.05, we can conclude that the model is appropriate for data.

2. Variables Entered into the Equation

Exp(B)	sig	Df	Wald statistic	Deviation error	B	Prediction variables
1/059	0/001	1	12/529 **	0/016	0/058	Neuroticism
1/001	0/633	1	0/228	0/002	0/001	Extroversion
0/997	0/040	1	4/220*	0/002	-0/003	Openness to experience
1/005	0/002	1	**9/473	0/002	0/005	Agree
1/028	0/074	1	**3/188	0/016	0/028	Conscience
0/362	0/006	1	**7/574	0/369	1/016	Place of living
0/902	0/740	1	**0/740	0/311	0/103	Family income
3/066	0/007	1	**7/223	0/417	1/120	Father`s education
0/790	0/559	1	0/243	0/403	-0/236	Mother`s education

**significant in level 0.01, *significant in level 0.05

Based on different indices, especially coefficients B and Wald statistic, and their significance level we can conclude that according to the model, prediction variables of demographic, place of living, father`s education, personality property, neuroticism, openness to experience and agreement all have significant relationship with criterion variable (emotional criterion of attitude towards addiction), since significance level of all of them less than 0.05.

Statistic B shows coefficients for each prediction variables in the model. According to the model, positive coefficient of variables for father`s education & personality property, and neuroticism & agreement indicates that with increase of subjects` scores in these variables, chance of being positive in attitude towards drug abuse will increase. Regarding coefficient of variables for place of living and openness to experience, the relationship is negative and significant; those living in village have more positive attitude towards drug abuse.

Also chance of being positive in attitude towards addiction in them reduces, with high level of students` scores in openness to experience.

Question2: According to personality property and demographic factors, attitude towards addiction in boy students can be predicted.

3. Model in Brief

Sig	Freedom degree	Nagelkerke R square	Cox and Snell R square	Chi-square
0/339	8	0/938	0/696	9/033

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According to values, it can be concluded that the model can predict between 69/6 percentage and 93/88 percentage of criterion variance; attitude of participants. Also, according to Chi-square value (9/033) and its significance level which is much more than 0/05, it can be concluded that the model is appropriate for data.

4. Variables Entered in Equation

Exp(B)	sig	df	Wald statistic	Standard error	B	Prediction variables
0/917	0/101	1	2/689	0/053	-0/087	Neuroticism
1/303	0/020	1	*5/431	0/113	0/264	Extroversion
1/005	0/729	1	0/120	0/015	0/005	Openness to experience
1/024	0/203	1	1/620	0/018	0/024	Agree
1/043	0/005	1	**8/025	0/015	0/042	Conscience
22/078	0/003	1	**8/919	1/432	4/278	Place of living
0/389	0/413	1	0/672	1/153	-0/945	Family income
0/461	0/710	1	0/138	2/085	-0/775	Father`s education
1/617	0/822	1	0/051	2/131	0/481	Mother`s education

**significant in level 0.01, *significant in level 0.05

**significant in level 0/01, * significant in level 0/05

According to coefficients B, Wald statistic and their significance level it can be concluded that based on the model, prediction variables of demographic factors, place of living, personality property, extroversion, conscience all have significant relationship with criterion variable (attitude towards addiction), since significance level of all of them is less than 0/05 (column sig).

According to the model, positive coefficient of variables of place of living, personality properties, extroversion, conscience all indicate that urban boys have more positive attitude towards drug abuse compared to boys in village. Also, with the rise of subjects` score in variables of extroversion and conscience, chance of being positive in boys` attitude towards drug abuse will increase.

Question 3: based on personality properties and demographic factors, we can predict attitude towards addiction in girl students.

5. Model in Brief

Sig	Freedom degree	Nagelkerke R square	Cox and Snell R square	Chi-square
0/825	8	0/949	0/709	4/346

According to the values, it can be concluded that the model can predict between 70/9 percentage and 94/9 percentage of criterion variance; attitude of participants. According to Chi-square value (4/346) and significance level which is much more than 0/05, it can be concluded that the model is appropriate for data.

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4. Variables Entered into Equation

Exp(B)	sig	df	Wald statistic	Standard error	B	Prediction variables
1/476	0/039	1	*4/254	0/189	.389	Neuroticism
0/989	0/281	1	1/161	0/011	-0/011	Extroversion
0/979	0/039	1	4/262*	0/010	-0/022	Openness to experience
1/010	0/214	1	1/541	0/008	0/001	Agree
0/780	0/122	1	2/389	0/161	-0/249	Conscience
0/001	0/027	1	4/893*	6/385	-14/124	Place of living
1/027	0/986	1	0/001	1/531	0/026	Family income
0/355	0/561	1	0/337	1/783	--1/035	Father`s education
16/406	3/123	1	2/376	1/815	2.798	Mother`s education

According to different indices, especially coefficients B and Wald statistic and their significance level, it can be concluded that based on the model, prediction variables of population factors of place of living, personality properties, neuroticism, openness to experience all have a significant relationship with attitude towards addiction, since significance level of all of them is less than 0.05 (column sig). Based on statistic B, positive coefficient of the variables indicates that with the rise of score in variable of personality property of neuroticism, chance of being positive in attitude towards drug abuse will increase. At the same time, negative coefficient of variable of girls` place of living indicate that rural girls have more positive attitude towards drug abuse compared to urban girls. Also, low score in variable of openness to experience means that with the reduction of their scores in this variable, chance of being positive in attitude towards drug abuse will increase.

Discussion

The issue of drug abuse has long been a key social problem in all the countries. Teenagers are the most vulnerable groups who are at risk of drug abuse much more than other groups due to identity crisis, and psychological crisis resulting from social problems, adventure, and enjoyment.

According to the model there is a significant relationship between personality factors, neuroticism, openness to experience and conscience with attitude towards addiction. It can be argued that probably subjects which gain more score in neuroticism, have more illogical ideas and they are less able to control their tensions and are at risk of social pathology much more, such as addiction, since they can not overcome stress and life problems like normal people. These findings are based on research of Aman Elahi and Ebrahimi, 2010 where correlation between factors of neuroticism and tendency to addiction is positive and significant. Also, according to research of Man *et al.*, 2007 and Fisher and Almas in 1998, score of addicts in neuroticism and openness to experience is more than normal group. Probably the reason is that those who gain high score in openness to experience are looking for newness, diversity and gaining new experience, hence they would like to experience new ideas and different value system (they are so called analytical) and have high level of risk, therefore it is probable they consider drug abuse as a different experience. On the other hand, those with low score in conscience (responsibility) are promiscuous, negligent, and aimless and these properties are seen much in those taking drug. Koirek and McCormick, 2005 and Fisher and Almas, 1998 showed that drug abusers had gained less score in conscience ratio compared to normal people. According to the model there is a positive and significant relationship between place of living with attitude towards addiction. These findings are compatible with research of Schneider *et al.*, 2007 indicating urban boys have more positive attitude towards drug compared to rural boys and probably one of the reasons is that drug is available. Research results (Farjad, 1998) and (Asli *et al.*, 2010) are consistent with the research findings, based on which those living in cities are more inclined towards drug abuse more than villagers. On the other hand, research results (Hawkins, Graham, Machin *et al.*, 1997) showed that boys had gained higher score in general attitude

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compared to girls. Also, research of (Mohammadi, 2010) also demonstrated that boy students` tendency to drug is more than girls. Moreover, American psychological association (2004) assessed level of drug abuse in men is more than women. These research findings have various reasons: first, boy`s risk-taking is more compared to girls. Second reason: more outbreak of drug abuse in men made the impression that drug abuse is a common method for showing men`s manner. Moreover, boy teen`s presence in social positions, where there exists addict boys, makes them gain information on drugs and the information can form men`s positive attitude towards drugs. Also, boys have less social and cultural limitations compared to girls and that boys have access to drugs more than girls (Pourafkari, 2003). Less drug abuse among Iranian girls is due to cultural condition that exists in Iran and also they take fewer drugs, since they are worried about their health. Other research finding is that with the rise of subjects` scores in extroversion and conscience variables, their attitude towards drug abuse will increase. Probably the reason is that those who are more extroverted, active, talkative, sociable, and optimistic than normal people, can take drug abuse into account as a new experience and this issue justifies their tendency to drug abuse. Research of (Eman Elahi and Ebrahimi, 2010) showed there is a negative relationship between extroverted personality and tendency to addiction. According to the model, there is a significant relationship between place of living, neuroticism personality property and openness to experience with attitude towards girl students` addiction. No research was found on this.

Rural girls who are curious, anxious, and inefficient and act immorally are more positive attitude towards drug abuse, probably due to some reasons such as lack of entertainment, myth they hear from others regarding short-term effects resulting from drug abuse, and having different excitement experience.

Finally, with the significance of the research topic, it is suggested that families become more familiar with puberty period and personality properties of their children and they should be trained regarding having a logical behavior with their children. Also, more preventive advertisement should be done in teens` schools and place of living, so that they can be familiar with consequences resulting from drug abuse.

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