Original Article

The mental health and substance abuse among youths aged 18 to 29: A comparative study

Mostafa Nasirzadeh, Ahmad Ali Eslami, Gholamreza Sharifirad, Akbar Hasanzadeh[1]

Departments of Health Education and Promotion, [1]Instructor in Biostatistics, School of Health, Isfahan University of Medical Sciences, Isfahan, Iran

ABSTRACT

Introduction: Drug abuse, as a social phenomenon, is one of the health problems of the present era. Inclination to drug abuse like other social phenomena is complex and multi-causal. Emphasizing on the psychological factors, the present study attempts to compare the amount of depression, anxiety and stress between drug abusers and the comparison group. **Material and Methods:** The research method is descriptive-analytic and its design is comparative. The population includes the youths of ages of 18-29 (with and without drug abuse behavior). The sampling is random and the sample size in drug abuser group is 183 and in the comparison group, it is 207 persons. The data collection instrument is questionnaire of personal information containing 6 questions and the standard questionnaire is DASS-21. The data were analyzed through SPSS-18 and statistic tests independent T, chi square, Mann-Whitney, and logistic regression analysis. **Findings:** The average age of the drug abusers is 25.9 ± 2.96 years and the comparison group is 24.2 ± 3.36. The most amount of methamphetamine is 75.9%. A significant correlation was observed between the education level and drug abuse behavior ($P < 0.001$). The score of the stress, anxiety and stress in drug abusers is more than the comparison group and this relationship was significant ($P < 0.001$). Based on the logistic regression analysis results, anxiety has the highest correlation with drug abuse behavior. **Conclusion:** The low level of education is an effective factor in drug abuse. According to the strong correlation between psychological factors and drug abuse behavior, it is necessary to suggest social plans of prevention and treatment of mental disorders.

Key words: Drug abuse behavior, mental disorders, youths

Address for correspondence: Prof. Ahmad Ali Eslami,
Department of Health Education and Promotion, School of Health,
Isfahan University of Medical Sciences, Isfahan, Iran.
E-mail: eslamiaa@gmail.com

INTRODUCTION

As a social phenomenon, drug abuse is one of the health problems of the present era that almost all of the countries are dealing with it.[1] As a kind of behavior, drug abuse is considered as a health problem. Jessor (1987), "defines the problem behavior as a kind of behavior that is unsuitable, undesirable, deviated from legal and social norms that demands some forms of social control reactions (from a simple reprimand to social exclusion and prison sentence".[2,3] Drug abuse has social, psychological physical and economic deep effects that in addition to personal damage, it imposes heavy costs on individuals, families and society.[1] A study

conducted by Kuo *et al.* (2011) the range of suicide has been very high after drug abuse[4] or a great amount of early deaths has been reported in drug abusers.[5] The rate amount of drug abuse has been different in different nations and races and the starting drug abuse has been moved to lower age.[6-8] In a study in 2005, the rate of stimulating drugs and crack has been reported as 89.6% and 73.6% respectively in America youths and teenagers.[9] But the matter that demands more reflection in our country is the changing trend of the youths from traditional drugs such as opium and heroine to industrial drugs such as XTC, methamphetamine and crack.[10] The prevalence of drug abuse in different parts of the country has been reported differently. For instance, Allahverdipoor *et al.* (2008) indicated that the rate of LSD abuse has been 4.8% and alcohol 92.5%[11] or Baroni *et al.* (2008), have reported the rate of XTC abuse as 18.5% between Tehranian youths.[12] Like other social phenomena, inclination to industrial drug abuse is not a one-causal phenomenon and a collection of individual, social, economic, political and cultural factors affect this inclination.[10] Mental disorders have been reported to be effective factors in youth's inclination towards drug abuse.[13,14] Various studies have shown that mental factors have a basic role in predicting the drug abuse.[13,15-19] For this, depression disorders could be considered as one of the important psychological factors related to drug abuse. Eslami *et al.* (2010), Tonda *et al.* (2010) believe that psychological disorders (maniac disorders, fear disorders, depression and anxiety) are among the predicting factors of drug abuse.[13,14] Emphasizing on the psychological factors, the present study attempts to compare the amount of depression, anxiety and stress between drug abusers and the comparison group.

MATERIAL AND METHODS

The research method is descriptive-analytic and is a comparative one. The studied population includes the referrers to addiction quitting camps and the common youths with the age range of 18 to 29 years settled in Isfahan that are studied by a simple random sampling. The sample was determined using the formula $[n = (Z_1 + Z_2)^2 (2 S^2)/D^2]$ and the possible loss of 10% that is 192 persons for each group. The number of final studied samples in the abuse group is 183 persons and the comparison group (The group without drug abuse behavior) is 207. The ages of 18-29, the use or the lack of use of one of the industrial drugs and full satisfaction was considered as the input conditions of the study. The data collection instrument in both groups is a questionnaire with 6 questions about personal information and the standard questionnaire DASS-21. DASS questionnaire includes 21 questions and it is in Likert scale with four options and with range from zero to 21 for each subscale. Reliability and validity of the questionnaire has been determined as 88% in Julie *et al.* and Cronbach's alpha coefficient of the subscales of depression, anxiety and stress have been 0.82, 0.9, 0.93, respectively.[20] Data have been analyzed through SPSS-18 and statistic tests of independent T, Chi square, Mann-Whitney, and logistic regression analysis.

FINDINGS

The studied sample was consisted of 183 people for drug abusers' group and 207 people for non-drug users' (46.9% versus 53.0%). The average age of the participants was 25.04 ± 3.29 (25.9 ± 2.96 for drug abusers and 24.2 ± 3.36 for the non-drug users group). In group of drug users, a number of 139 (75.9%) were methamphetamine abusers, 110 people (60.1%) were crack abusers, 48 persons (26.2%) consumed XTC, and 110 cases (60.1%) were alcohol users [Figure 1]. As it was shown in Table 1, 171 (32.8%) persons out of 183 drug abusers, were married, 114 (62.3%) were single, and 9 (4.9%) were divorced. On the other hand, 1.9% of the non-drug users were divorced [Table 1]. Although, addiction rate was more in divorced ones than the other groups, chi square did not show a significant difference ($P > 0.05$). Table 2 shows the education level of the participants in the two groups distinctly. The findings indicated that 39% of the drug abusers were illiterate or had primary education and 6% had higher degrees while 27.2% of the non-drug users had academic degrees [Table 2], Mann-Whitney test has shown this difference is significant ($P < 0.001$). According to the data in Table 3, the drug abuser group had more psychological problems in relation to the comparison group so that mean score of depression, anxiety and stress in drug abusers has been 9.08 ± 5.40, 7.93 ± 5.64, and 8.74 ± 4.40, respectively and in the comparison group it has been 5.72 ± 4.96, 4.55 ± 4.34, and (6.36 ± 4.06), Independent T-test has shown a significant difference between the mean score of depression, anxiety and stress in two groups ($P < 0.001$) [Table 3]. It should be mentioned that among the psychological disorders, the highest mean score belongs to depression. For example, in relation to the comparison group, drug abusers feel more perplexed and are impatient and intolerable for anything and the life does not have a special meaning and concept. In order to analyze the predictive ability of each psychological disorder, logistic regression analysis was utilized. The logistic regression analysis also showed that between the psychological factors, anxiety (Wald = 7.55) has the most significant relationship with drug abusing behavior.
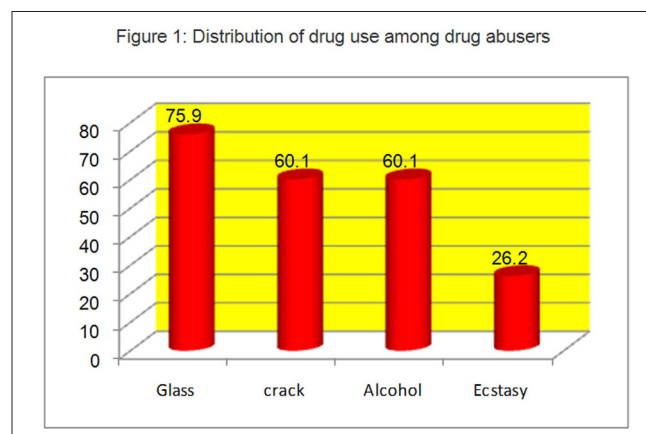

Figure 1: Frequency distribution of the consumed drug between the drug abusers

Table 1: Frequency distribution of the marital status in the two groups

Groups	Marital situation						P value
	Married (*N*=125)		Single (*N*=252)		Separated from partner (*N*=13)		
	Percent	Number	Percent	Number	Percent	Number	
Addict *N*=(183)	32.8	60	62.3	114	4.9	9	0.05
Non-addict *N*=(207)	31.4	65	66.7	138	1.9	4	
Total	32.1	125	64.6	252	3.3	13	

Table 2: Education level of the participants for the two groups

Groups	Education level										P value
	Illiterate (*N*=11)		Primary (*N*=71)		Diploma (*N*=185)		Advanced diploma (*N*=54)		BA[1] and higher (*N*=67)		
	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	
Addict	3.8	7	35.2	64	45.6	83	9.3	17	6	11	<0.001
Non-addict	1.9	4	3.4	7	49.5	102	18	37	27.2	56	
Total	2.8	11	18.3	71	47.7	185	13.9	54	17.3	67	

Table 3: Mean and standard deviation of depression, anxiety and stress in the two groups

Mental disorder	Non-addict (*N*=207)		Addict (*N*=183)		P value	t
	Mean	Standard deviation	Mean	Standard deviation		
Depression	5.72	4.96	9.08	5.40	<0.001	6.39
Stress	6.36	4.06	8.74	4.40	<0.001	5.54
Anxiety	4.55	4.34	7.93	5.64	<0.001	6.55

DISCUSSION

This study has been conducted on 183 drug abusers and 207 in comparison group of 18 to 29 years old. The average age of drug abusers is 25.9 ± 2.96 and in comparison group it is 24.2 ± 3.36. Methamphetamine and crack with the range of 75.9% and 60.1% respectively have been the most consumed drugs. 32.8% of the drug abusers and 31.4 of the comparison group were married. 4.9% drug abusers and 1.9% of the non-addicts were separated from their partners. Although, the prevalence of drug abuse in those who has separated from their partners is more than the other group, a significant relationship was not observed between marital status and drug abuse in this study. However, Dan *et al.* indicate that alcohol use is more between bachelors than the married ones.[15] 39% of the drug abusers were illiterate or had low degree education, on the other hand, 5.3% of the comparison group were illiterate or with low degree education. The result showed that there is a significance difference between the education levels of the two groups in that, drug abusers had a lower education level. Baruni, *et al.* (2008) and Stephane *et al.* (2010) also reported in their study that the drug abuse has a significant relationship with the level of education.[12,21] It seems that those who have a lower degree of education have less knowledge about drugs and their effects. The average score of depression, stress and anxiety of the drug abuser was more than the non-addicts. In the present study, a significant relationship was observed between the score of depression,

anxiety, and stress between the two groups. Tonda (2010) and James also showed a significant relation between the scores of depression, anxiety, and stress with drug abuse behavior.[13,14] In this regard, Baruni and Fathi have found the same results.[12,22] Logistic regression analysis indicated that among the psychological factors, anxiety (Wald = 7.55) has the most significant relationship with drug abuse behavior. The present study was a sectional one that by meeting some regulations, such as a suitable comparison group, focusing on a special age group and being precise in sampling could get to reliable results though, some limitations of this study could jeopardize the reliability of the results. For this, it is suggested that 1) One should be careful in future studies about the using these results, 2) For more analysis, linear studies and larger samples should be used, 3) The present study has studied just some psychological factors as predictive factors of behavior in users and abusers. But it is obvious that drug abuse pattern is much more complex that requires more comprehensible studies to have a better knowledge of drug abuse phenomenon in young people. However, educational interventions (such as psychiatry interventions, teaching life skills, increase of young people's knowledge and attitude toward drugs by increase of education level) and proposing predictive social programs and treatment of psychological disorders seem necessary.

CONCLUSION

The findings of the present study indicated that there is a significant correlation between the education level and drug abuse of the people. The results show that the people who are dependent to drugs, in comparison to the common population have signs of psychological pathology and psychiatric disorders and they will be encountered more with depression, anxiety and stress in relation to the comparison group. According to the co-risk of the drug dependency and psychological, it is recommends that educational interventions and also preventive social plans and treatment of mental disorders

be used for removing the above problems. Also, expansion of educational programs for general prediction, based on psychological empowerment in lower age groups (children and teenagers) could also be effective in reduction of drug abuses.

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