



## Substance Abuse among College Students: Investigation the Role of Hopelessness

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**Abstract:** Some of study showed hopelessness is related with risky behaviors. The main aim of this study was determination the relationship between hopelessness and cigarette smoking, drug abuse, psychotropic drug use, and alcohol drinking among sample of Iranian male medical college students. A cross-sectional study was conducted among 425 male medical college students, during 2014 which was randomly selected with the proportional to size among different faculty. A standard self-report questionnaire was applied for collecting data and data were analyzed by SPSS-20 using  $t$ -test, One-way ANOVA, and logistic regression statistical tests at 95% significant level. Hopelessness had significant relationship with marital status, living place, and parent's education ( $P < 0.05$ ). Logistic regression showed, hopelessness was a predict cigarette smoking ( $OR=1.148$ ), and alcohol drinking ( $OR=1.102$ ). Our findings showed Hopelessness was an independent risk factor for cigarette smoking, and alcohol drinking; thus, Intervention strategies that lower hopelessness may be effective for smoking and alcohol use prevention.

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**Key words:** Substance abuse, College Students, Hopelessness

### 1. Introduction

Addiction is an abnormality with clinical, behavioral and cognitive signs which is created by psychological and social factors on one hand and biological and pharmacological factors on the other hand; social factors are considered important at the first steps of addiction and biological factors in later dependency [1]. Drug abuse is a serious public health problem that affects families and societies; drug abuse results in around 40 million serious illnesses or injuries among people in the United States Each year [2]. Many of countries are more or less involved with drug use as a social phenomenon and a contemporary health problem, especially in the age group 18-29 years and due to the high rate of premature deaths caused, is about the importance and attention [3]. Drug abuse is one of threatening issues to the security of societies, and unfortunately, in spite of dangers and detriments of addiction, its victims increase day by day, and statistics published by international

organizations are indicative of constant increase in drug abuse all around the world [4]. Up to know, more than a thousand of soothing, stimulating and addictive drugs are recognized which are eaten, smoked, injected or inhaled, and according to the statistics by world health organization reports, drug usage is increasing among teens and young adults [5].

One of the factors that could be underlying risky behavior, is hopelessness; which is a system of negative expectations concerning oneself and one's future life; which is an important concern in health and social care [6, 7]. Hopelessness could be reduce social competence and problem solving in person [8, 9]. Hopelessness has also been shown to predict a variety of other adverse health outcomes in large epidemiological studies, such as incidents of myocardial infarctions, hypertension, cancer, and an increase in all-cause mortality [10].

The aim of this study was determination associated between hopelessness with cigarette

smoking, drug abuse, psychotropic drug abuse and alcohol drinking among sample of Iranian male medical college students.

## 2. Methods:

This cross-sectional study was conducted on 425 male college students aged 18 to 22 years old with mean of 19.9 (SD = 1.19) in Iran, during 2014. Being literate for completing written questionnaire were eligibility criteria to participate in this study. Of the population of 425, 355 (84%) signed the consent form and voluntarily agreed to participate in this study, which has been approved by the institutional review board at the Isfahan University of medical sciences.

Prior to conducting the main project, a pilot study was carried out. Initially the relevant questionnaires were administered to 18 college students who were similar to study population in order to estimate the duration of the study conduction and to evaluate the reliability of the questionnaire.

Questionnaire included two sections that comprised of nineteen questions: eleven questions for demographic features; eight questions for hopelessness.

Hopelessness was measured by the substance

use risk profile scale [11], and including 8 items, for example: "I am content" or "I am very enthusiastic about my future". Using four response options (strongly disagree [1], disagree [2], agree [3], and strongly agree [4]). Estimated reliability using alpha Cronbach coefficient for each hopelessness scale in our study was ( $\alpha = 0.80$ ).

Data were analyzed by SPSS version 20 using appropriate statistical tests, including t-test, One-way ANOVA, and logistic regression statistical tests at 95% significant level.

## 3. Result

Almost, 44.5 % (158/355) participants were freshman students and 55.5 % (197/355) were sophomore students. Furthermore, 12.7% (45/355) of respondents stated that they had received suggestions from others to use drugs. Nearly 23.7% (84/355) and 14.9% (53/355) of the respondents reported that their friends and family were having history of drug use, respectively.

We found the correlation between marital status, level of parent's education, living place and hopelessness (Table 1).

Table 1: Association between Background Variables and Hopelessness

Variable		Mean	SD	t/f	P
Marital Status	Single	16.63	4.60	1.901	0.050*
	Married	14.47	4.25		
Education Level	BSc Student	16.22	4.50	-1.080	0.281
	Doctor student	16.75	4.67		
Parent's Divorce	No	16.50	4.58	-0.610	0.542
	Yes	17.33	5.44		
Level of Mother Education	Primary School	17.34	5.12	2.785	0.041*
	Secondary School	17.21	5.04		
	High School	16.44	4.26		
	Academic	15.23	4.27		
Level of Father Education	Primary School	16.77	4.18	2.633	0.050*
	Secondary School	17.23	3.92		
	High School	16.96	4.67		
	Academic	15.44	5.02		
Living Place	Home with family	15.70	4.28	3.868	0.022*
	Dormitory	17.07	4.75		
	Others	15.62	3.70		

Logistic regression and t-test showed the hopelessness was significant correlation with cigarette smoking and

alcohol use, but not significant correlation with drug and psychotropic drug use (Table 2-3).

Table 2: Association between Hopelessness and Substance Abuse

Variable		Mean	SD	t	P
Cigarette Smoking	Yes	19.11	5.45	4.588	0.001*
	No	16.07	4.28		
Drug Abuse	Yes	19.71	6.07	1.851	0.065
	No	16.47	4.56		
Psychotropic Drug Use	Yes	19.00	9.89	0.758	0.449
	No	16.52	4.58		
Alcohol Drinking	Yes	18.63	5.15	2.221	0.027*
	No	16.39	4.54		

Table 3: The correlation between Different Hopelessness and Substance Abuse

Variable	Odds Ratio	95.0% CI		P value
		Lower	Upper	
Cigarette Smoking	1.148	1.077	1.222	0.001*
Hopelessness				
Drug Abuse	1.141	0.990	1.316	0.069
Hopelessness				
Psychotropic Drug Use	1.109	0.849	1.448	0.449
Hopelessness				
Alcohol Drinking	1.102	1.010	1.202	0.029*
Hopelessness				

Finally, Mean (SD) for response of hopelessness items shown in Table 4.

Table 4: Response of hopelessness items among the participants

Items	Mean	SD	Total Mean (SD)
I am content.	2.19	0.94	16.53 (4.60)
I am happy.	2.09	0.91	
I have faith that my future holds great promise.	1.98	0.87	
Sometimes I think I am no good at all.	2.47	0.87	
I feel proud of my accomplishments.	1.92	0.86	
I feel that I'm a failure.	1.89	0.82	
I feel pleasant.	2.08	0.89	
I am very enthusiastic about my future.	1.89	0.91	

#### 4. Discussion:

The study findings suggest that the prevalence of substance abuse among a sample of Iranian male medical college student is relatively high. In this regard, several study reported 4.8 to 33 %

spread of drug among Iranian students [12-14]; Drug abuse is a main problem in society ruining the life and leading to use of national assets for combating addiction and its defects [15], thus, it seems necessary to implement educational interventions to prevent

substance abuse among students.

Our findings showed, the correlation between marital status, level of parent's education, living place and hopelessness. Furthermore, the hopelessness was significant correlation with cigarette smoking and alcohol use, but not significant correlation with drug and psychotropic drug use.

Another important findings of present study, higher mean of hopelessness among the students who living in the dormitory. In this regards, Jalilian *et al* [16] and Amani [17] in their studies reported that correlation between living in dormitory and higher depression among Iranian college students. It seems that students who living in the dormitory is higher at risk group for hopelessness and depression. In addition according to relationship between hopelessness with risky behavior such as: cigarette smoking and alcohol drinking, it seems implementing intervention due to reduce hopelessness among them could be usefulness result for substance abuse prevention.

College students is one of at risk group for substance abuse, which substance abuse among them could be several consequences for students and society, such as: lack of intention and educational problems, psychological and physical illnesses, suicide, aggressive behavior, failing own identity and risky sexual behaviors [13 and 18]. It is suggested that consulting offices at universities be more active, especially to students who living in dormitory.

Finally, our result showed mean hopelessness score was 16.53, ranged from 8 to 32; this score shows that the participants had obtained 51.6% of the total scores of hopelessness; furthermore, sense no good at all and content was a higher mean among the hopelessness item, that this point should be considered in designing intervention programs for reduce hopelessness among college students.

### 5. Conclusion:

Based on our result, hopelessness was an independent risk factor for cigarette smoking, and alcohol drinking; thus, intervention strategies that lower hopelessness may be effective for smoking and alcohol use prevention.

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### Conflict of interest statement

Authors declare that there is no conflict of interest.

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