

Sensation Seeking is Related to Cigarette Smoking and Alcohol Drinking among College Students?

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Abstract: Sensation seeking is a personality trait which person willing to gain new experiences; the main aim of this study was to determine the role of sensation seeking on cigarette smoking and alcohol drinking among male students in Kermanshah University of Medical Sciences. This cross-sectional study was conducted among 300 male medical college students, during 2014 in Kermanshah University of Medical Sciences which were 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-21 using t-test, one way ANOVA and bivariate correlations statistical tests at 95% significant level. Cigarette smoking and alcohol drinking during 1, 3 and 6 months before the study was reported 10.4, 11.5 and 13.5% (for smoking) and 5.4, 6.2 and 5.5% (for alcohol drinking) by respondents. There was a significant correlation between sensation seeking with cigarette smoking and alcohol drinking ($p < 0.05$). Based on the result, it seems that designing and implementation of intervention programs to reduce negative sensation seeking among the young adults may be useful of the results in order to prevent of substance abuse.

Key words: Cigarette smoking, alcohol drinking, college students, sensation seeking, correlation

INTRODUCTION

Smoking and alcohol drinking have been known as major risk factors to health which will develop various kinds of health problems around the world, particularly non-communicable diseases such as cardiovascular, respiratory, cancer, stroke, mental disorders (King and Chassin, 2007). However, there are over one billion smokers around the world and it is estimated that by 2030 there will be one more million people smoking (Haenle *et al.*, 2006). Also, by the end of 20th century, smoking was known as the reason to the death of 3 million people a year and it is predicted that by 2020 the mortality rate increases to 10 million a year, majorly in developing countries. It is obvious that smoking rate is increasing in developing countries so that these countries consume 70% of tobacco products in the world. The global youth tobacco survey collaborative group (Tobacco use among youth: a cross country comparison; Tob Control. 2002). On the other hand, world health organization introduced

alcohol abuse as a major reason to mortality and disabilities which cover 4% of Disability-Adjusted Life Years (DALYs) (Gu *et al.*, 2004). In addition to negative health consequences, alcohol abuse could result in social consequences such as physical and verbal aggression, risky sexual behaviors, accidents and dropout (Swahn *et al.*, 2004). Therefore, it seems necessary to recognize and prevent effective factors to alcohol abuse; in this regard, preventive interventions have been considered as health promotion strategies (Cooke *et al.*, 2007). Although, alcohol abuse is reported among all age ranges, the highest rate of alcohol drinking is reported in age range of 18-24 (Gu *et al.*, 2004). Also, studies introduced student life as the most important change step and the transition period in individuals' lives which creates influential changes in various dimensions. Individuals face new challenges in their education, social communication and other fields that are imposed to them by a new environment (Jalilian *et al.*, 2012). Such changes make student life the riskiest period to find trends to risky

behaviors such as substance abuse (Barati *et al.*, 2012; Jalilian *et al.*, 2014, 2015a, b). Considering the causes to tendency toward risky behaviors, sensation seeking was introduced as an etiological factor (Kopstein *et al.*, 2001; Martin *et al.*, 2002). Sensation seeking is a personality trait that encourages individual to experience new things and is a characteristic known by seeking excitement, various and complicated experiences and tendency to physical, social and financial risks (Comeau *et al.*, 2001). Investigating 293 students, Cyders *et al.* (2009) reported that sensation seeking not only leads to higher tendency to drug and alcohol abuse but also increases the chance to commit risky sexual behaviors and aggression. Barraco *et al.* (2009) also studied the effect of college student's gender on alcohol drinking and reported college students' alcohol drinking in cases of negative excitements, their boredom and monotony and creating challenges in their routine life. There are some similarities reported between male and female risky behaviors, however risky behaviors are more common among men which may cause problems, social harm and physical and mental illness in their current or future lives (Barraco *et al.*, 2009). Since, recognizing the relevance of sensation seeking concepts to male college students' risky behaviors is essential to planning youth health promotion interventions, the present study was done aims to investigate sensation seeking and its relationship to smoking and alcohol drinking among university of medical sciences and health services of Kermanshah male students, Iran.

MATERIALS AND METHODS

This was a cross sectional-descriptive study among 300 male students of University of Medical Sciences and Health Services of Kermanshah, Iran. To conduct the study, first various faculties were considered as clusters. Then, samples were selected in each cluster through random sampling with probability proportional to size. A questionnaire was developed to the aim of the study by the researchers and participants were asked to respond to the questionnaire. Participants were informed about the procedure of the study and confidentiality of information as well as the aim of this study was justified. All participants enrolled the study on their will. This study has been approved by the Institutional Review Board at the Kermanshah University of Medical Sciences (KUMS.REC.1394.446).

The required data was gathered using a validated self-report questionnaire which included two sections. The first part included items on demographic information, 11 items on students personal information such as age

(year), gender (male, female), faculty (medicine, dentistry, pharmacy, health and nutrition, nursing and midwifery), educational level (undergraduate, graduate, doctoral and professional), marital status (single, married), live in the dorms (yes, no), economic status (very poor, poor, average, good, very good), parent education (no education, high school diploma, diploma, college education), cigarette smoking (yes, no) and alcohol (yes, no).

The second part included items on sensation seeking. Short form of sensation-seeking questionnaire was used to evaluate sensation-seeking. In 1964, Zuckerman first developed 40 questions in the main questionnaire of sensation-seeking (Zuckerman and Kuhlman, 2000). Later in 2002, Hoyle *et al.* (2002) modified the short form of sensation-seeking questionnaire to include 8 items (e.g., "I would like to experience risky activities" and "I would like to travel without planning"). Responses are chosen in 5 Likert scales. Cronbach's alpha of the questionnaire was calculated from 0.74-0.85 in various societies (Hoyle *et al.*, 2002; Stephenson *et al.*, 2003). A pilot study was run on 30 students due to the purpose of the study and Cronbach alpha was estimated 0.80.

Data were analyzed by SPSS version 21 using appropriate statistical tests including t-test and ANOVA at 95% significant level.

RESULTS

Participants' ages ranged from 18-30 years (mean age 21.53±2.58). The 21 participants (8.2%) were married. About, 7 individuals (2.7%) reported their parents divorced. Furthermore, 103 participants (40.2%) stayed at dormitories. Considering fathers education, 24 participants (9.4%) reported their fathers illiterate, 76 (29.7%) reported their fathers not finished high school, 81 (31.6%) reported high school diploma and 75 (29.3%) reported college degree. Considering their mothers educational level, 10.5, 41.8, 33.2 and 14.5% reported illiterate, not finished high school, high school diploma and collage degree, respectively.

Results suggested that 10.4, 11.5 and 13.5% of participants smoked during last 1, 3 and 6 months, respectively. Also, 5.4, 6.2 and 5.5% reported drinking alcohol during last 1, 3 and 6 months.

Table 1 shows the results of mean and standard deviation of sensation seeking questionnaire. Total score of sensation seeking was 22.53 (SD = 6.47) which suggested that 56.3% of participants gained the given maximum score to sensation seeking.

Table 1: Mean and SD of brief sensation-seeking scale

Variables	Mean	SD
I would like to explore strange places	3.10	1.16
I get restless when I spend too much time at home	3.20	1.29
I like to do frightening things	2.48	1.17
I like wild parties	3.60	1.19
I would like to take off on a trip with no pre-planned routes or timetables	2.83	1.28
I prefer friends who are excitingly unpredictable	2.13	1.13
I would like to try bungee jumping	2.72	1.45
I would love to have new and exciting experiences, even if they are illegal	2.43	1.24

Table 2: Relationship between sensation seeking and background variables

Variables	Mean (SD)	p-values
Marital status		
Single	22.69 (6.50)	t = 1.380, P = 0.169
Married	20.66 (5.92)	
Living in dormitory		
Yes	23.40 (5.93)	t = 1.984, P = 0.05
No	21.78 (6.81)	
Parents' Divorce		
Yes	26.57 (2.29)	t = 1.680, P = 0.094
No	22.41 (6.52)	
Father educational level		
Illiterate	23.45 (7.11)	f = 2.302, P = 0.078
Under diploma	21.75 (5.88)	
Diploma	21.65 (6.59)	
Academic	23.97 (6.54)	
Mother educational level		
Illiterate	23.23 (7.07)	f = 2.996, P = 0.031
Under diploma	21.82 (6.29)	
Diploma	21.98 (6.36)	
Academic	25.24 (6.28)	

Table 3: Relationship between sensation seeking and substance abuse

Variables	Mean (SD)	p-values
Smoking		
Past month		
Yes	24.82 (8.10)	t = 2.227, P = 0.024
No	22.16 (6.12)	
Past 3 months		
Yes	25.73 (8.17)	t = 2.925, P = 0.004
No	22.10 (6.11)	
Past 6 months		
Yes	25.92 (8.36)	t = 2.922, P = 0.004
No	22.13 (6.12)	
Alcohol drinking		
Past month		
Yes	29.92 (7.60)	t = 4.564, P = 0.001
No	22.10 (6.15)	
Past 3 months		
Yes	28.75 (7.70)	t = 4.088, P = 0.001
No	22.11 (6.18)	
Past 6 months		
Yes	28.29 (7.31)	t = 3.902, P = 0.001
No	22.12 (6.22)	

Using the results from t-test and ANOVA, Table 2 shows the relationship between sensation seeking and background variables. Based on the results, there was a statistically meaningful relationship between staying in the dormitories and mothers educational levels ($p = 0.031$). Also, results of Pearson correlation test showed a statistically meaningful but inverse, association between age and sensation seeking ($p < 0.001$, $r = -0.215$).

Table 3 shows the results from t-test which indicates the relationship between sensation seeking and

substance abuse (including smoking and drinking alcohol). As seen in the Table 3, there was a statistically significant relationship between sensation seeking with smoking and drinking alcohol.

DISCUSSION

The present study was done aims to determine sensation seeking status among male college students in the west of Iran and its relationship to smoking and drinking alcohol. As results from the present study suggested, there was a statistically meaningful relationship between sensation seeking with smoking and drinking alcohol among the participants. Results from the present study were in accordance to previous studies (Barraco *et al.*, 2009; McCauley and Calhoun, 2008). Bancroft *et al.* (2003) reported that young adults sensation seeking not only increases their risk taking to satisfy their pleasure and enjoyment but also encourages them to smoke and drink alcohol to relieve monotony and make pleasure. On the other hand, sensation seeking caused young adults to ignore risks and consequences of committing risky behaviors (Bancroft *et al.*, 2003). Besides, Zackerman introduced sensation seeking as a personality trait which could be defined according to various, complicated and novel experiences and feelings and also tendency to physical, social and economic jeopardy (Legrand *et al.*, 2007). It should be noted that high levels of sensation seeking could be efficient, too; however, it was found to be inefficient in the form of drug abuse. In this regard, the reasons to the correlation between drug abuse and sensation seeking were reported as: neurostimulation caused by the drug, stimulus material for their illegal, choosing stimulating drugs and drug-induced altered state of consciousness (Rahmanian and Hasani, 2005). Results suggested the necessity of considering sensation seeking while planning preventive interventions to drug abuse among young adults. Therefore, it is essential to develop training programs to control sensation seeking.

As results showed, three items of sensation seeking, including enjoying natural settings, feeling impatient in the case of staying home for a period of time and the tendency to experience unknown environments, gained the highest scores. It is believed that those who seek sensation look for situations which provide illegal stimulations and deviant peer groups (Caspi *et al.*, 2000).

Numerous studies have shown the substance use has many side effects and has been referred to the need to implement prevention programs (Farnia *et al.*, 2014; Karami *et al.*, 2014). The results from the present study could be used to plan training interventions in order to

form the desired behavior. It could be helpful to guide young adults' excitement to socially friendly activities such as political or social activities, festivals, local and group championships, etc. and provide them with sports complexes including extreme sports.

Results from the present study also suggested a statistically meaningful relationship between staying in a dormitory and sensation seeking. It is believed that college students often bear emotional pressures since they live apart from their families and as the result they seek for alternatives to decrease their pressures which in turn leads to the tendency to experience risky behavior and higher levels of sensation seeking.

Also, results indicated a statistically significant, though adverse, correlation between sensation seeking and age. Research on the issue reported that individuals who seek sensation always put themselves at risk. They seem to be aware of risks but believe a certain level of risk to feel happy. Though they show no problem in risk perception, they act differently to evaluate risk level and the necessary level of danger in life (McCauley and Calhoun, 2008). It seems that when individuals grow older, their risk taking power and as the result, their sensation seeking decreases.

CONCLUSION

Results from the present study confirmed the effective role of sensation seeking to do risky behavior such as smoking and drinking alcohol. Considering young adults' negative excitements while planning behavioral and training interventions could be helpful to prevent substance abuse.

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