فصلنامه ایده های نوین روانشناسی
دوره ۶، شماره ۱۰، پاییز سال ۹۹

Determining the Correlation between Using Substances, Alcohol, Neuropsychiatric Drugs, and Smoking with Students Academic Achievement (Case Study of Students in Tehran Islamic Azad University, Central Branch)

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Abstract
Substance use is one of the most serious human problems in recent years and the most complex human phenomenon. Drug abuse and addiction is a chronic condition causing physical, family, economic, and social harm. This study was aimed at determining the correlation between using substances, alcohol, neuropsychiatric drugs, and smoking with students' academic achievement (case study of students in Tehran Islamic Azad University, Central Branch) in the academic years 2020-2021. This study was a descriptive-correlational one in which 740 people were selected by simple random sampling among the eligible students according to the sample size formula. SPSS software, version 17 was used for data analysis. The findings of the present study showed that academic achievement of students who used substances, alcohol, cigarette and neuropsychiatric drugs was significantly lower than other students. Statistical t-test results also confirmed these findings.
Keywords: alcohol, cigarette, neuropsychiatric drugs, substances

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1. Introduction and statement of research problem

Drug abuse and dependence is one of the most complex health issues in the world, caused by the interaction of substance availability, environment, individual or psychological factors. All addiction experts and specialists believe that addiction and drug abuse must be considered as one of the most obvious biological, psychological, and social problems. Drug abuse and addiction is one of the major problems in the developing countries (Ansari et al., 2018). Since populations of these countries are young, they are naturally at a higher risk. Young people, as the largest and most vulnerable group, are at greater risk. The range of the effects of addiction is important because its severe consequences do not only affect the addict, but usually family, friends and colleagues will also be exposed to its devastating effects (Asayesh et al., 2016). As seen, among various individual, social and family factors, association with addicted friends plays the most important role with 78% in the tendency to drug abuse (Botvin, 2015). Drug abuse is a prevalent global phenomenon and has attacked human society as the most important social harm. Drug abuse is defined as a non-adaptive pattern of substance use leading to recurrent problems and adverse outcomes, and includes a set of cognitive, behavioral, and psychological symptoms (Heidari et al., 2013). Our dear country due to its special human and geographical contexts is also involved with drug addiction. Although the exact number of addicts in our country is not clear, the country's officials have reported the number of addicts more than two million people. For any human society, addiction is accompanied by damages including economic, social, cultural, political and human aspects (Mancheri et al., 2013). Youth addiction is in fact the cause of complete destruction and degeneration of a society. In many countries, the age of vulnerability for the onset of addiction is considered to be between 20 and 34 years. Each country greatly emphasizes the health of its youth. Unfortunately, there is a significant increase in use of drugs, alcohol and cigarette, especially among the young people. Studies have shown that medical staff have a higher rate of drug dependence than other professions (Mardani et al., 2012).

The prevalence of the use of psychotropic substances has been proven among the students in many studies due to their more familiarity with these substances and problems. In a study conducted in US, a total of 1.8% reported illegally using stimulants at least once in their lifetime, and 5.4% admitted using them during the past year (Mortazavi et al., 2009). The source which guided them to use these drugs illegally was their friends and peers. In a previous study conducted in the educational centers in Qazvin, the prevalence of neuropsychiatric drug use was estimated to be 4.8%. Moreover, according to another study in Qazvin, the prevalence of neuropsychiatric drug use was 4.8%. In a study in Spain, the use of illegal substances and self-medication in the population aged 15-64 years was reported to be 27.8% (Moulavi & Rasoulzadeh, 2019). The sedative and hypnotic drugs widely used in Iran are no less than the addictive substances, and quitting them may be even more difficult and more dangerous than the addictive substances because they may be accompanied by hysteria. Improper use of drugs may impede the ability of individuals to learn and develop technical skills, thus affecting the quality of life (Taremian et al., 2014). A study conducted on students of Zagreb Medical University

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showed that the drug use was very high and without medical supervision. Using psychotropic substances was very prevalent among the medical students in Zagreb. The most common motivations for illegal use of these drugs were helping to focus (65.2%), helping to study (59.8%) and increasing alertness (47.5%), respectively, and other motivations included achieving a great state (3.01%) and curiosity (29.9%) (Siam, 2018). Our country also has major problems in the field of addiction due to its young population. The exact prevalence rate of this problem among university students in our country is unclear, but various studies have stated different rates of 20 to 40 percent for the prevalence of substance abuse among students. Statistics show many human and financial losses caused by addiction. The economic costs, death, suicide, serious crimes, and failed marriages are somehow associated with the use of addictive substances. Adverse social effects, behavioral and psychiatric problems, and the risk of physical diseases such as AIDS and hepatitis increase due to the abuse of these substances. Since there are many factors causing addiction, full identification of these factors in each region will help the effectiveness of prevention activities. On the other hand, timely identification of at-risk populations and substance abusers is important in order to develop prevention and treatment programs. Therefore, due to the lack of research in this field in the Islamic Azad University of Tehran, Central Branch, the present study was conducted to determine the correlation between the use of substances, alcohol, cigarette, and neuropsychiatric drugs with the academic achievement of students in this university to take a step towards promoting students health through planning by the authorities in order to control the factors related to the abuse of drugs and neuropsychiatric drugs.

2. Literature review and research background

The prevalence of the use of psychotropic substances has been proven among the students in many studies due to their more familiarity with these substances and problems. In a study conducted in US, a total of 1.8% reported illegally using stimulants at least once in their lifetime, and 5.4% admitted using them during the past year. The source guided them to use these drugs illegally was their friends and peers (Blanco et al., 2020). A previous study on high school students in Vienna, Austria found that those abusing drugs and alcohol were more likely to have suicidal ideation (Dervice, 2019 et al., 2007). Previous studies in the United States have found that 16.4% of students have substance abuse or alcohol dependence, and that 13.4% and 3.9% are dependent on marijuana and other illicit drugs, respectively, and drug use has been shown to be alcohol-related (Chen, 2018). Although mental disorders have existed since the beginning of mankind, machine life and the resulting psychological pressures have had a major impact on people's mental health and quality of life, that is why the twentieth century has been called century of anxiety, and it is expected that depression will be one of the biggest human problems for the next few years. In a study conducted in Tehran among pre-university students, smoking was 35% in boys and 26.9% in girls (Askari et al., 2018). Rahimi Movaghar and Sahimi (2015), in a study on students in our country, it was shown that substance use among students in recent years includes alcohol, opium and cannabis, respectively. Other studies have shown that alcohol use is 17-27% among Iranian

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students and 42.5% among Malaysian students (Zarabi et al., 2009, Serajzadeh & Faezi, 2007). Research has indicated that using neuropsychiatric drugs is more prevalent among students due to their familiarity with these drugs (Villena et al., 2004). The use of these drugs in a study in Spain was 27.8% (Hesser et al., 2000) and in a study by Ansari et al. (2007) on Zahedan students was reported to be 20.3%. The use of substances and illegal drugs by young people is directly related to reduced lifetime, accidents, unwanted pregnancies, suicide and violence, and their physical and mental addiction to drugs is one of the most important health problems in all societies. Another adverse effect of substance abuse is its effect on students' academic performance. According to Laurand et al., students using less drugs and substances are more likely to achieve academic success.

3. Materials and methods

This research is a descriptive-correlational study conducted among the students of Tehran Islamic Azad University, Central Branch in 2020. Inclusion criteria included students who were studying at the university for at least two semesters and were satisfied to participate in the study. After approval by the research committee of Tehran University of Medical Sciences and submission of licenses to the target faculties, 740 people were selected among the eligible students according to sample size formula by simple random sampling after studying the list of students. Then, by stating the objectives of the study and providing assurance about the confidentiality of information and obtaining informed consent from them, research data were collected through Drug Use Questionnaire. Data collection tool was a questionnaire consisting of two parts prepared after reading related books and articles. The first part included 5 items related to the demographic characteristics of the studied units, such as age, gender, religion and residency status (native, non-native). In the second part, psyche, alcohol, drugs and giving importance to prayer were discussed. This part included 5 items related to smoking and using psychiatric drugs and content validity method was used to measure its validity, such that the questionnaire was administered among 10 teachers and opinion experts. Then, using the retest, the opinion experts in the field were consulted and the necessary corrections in the questionnaires were given to 35 students in two stages with an interval of 12 days and their reliability was confirmed with a correlation coefficient of 0.88. Bandvar urges that in order to measure people's achievement, one should pay attention to their actual performance, and actual performance appears when doing homework is important and they have a high motivation to do it (quoted by Reshvanlo). Due to the importance of end-of-semester exams for students in this study, the grade point average of the first and second semesters of the academic year 2020 was used as an indicator to measure academic achievement. Finally, the collected data were analyzed by SPSS software, version 17 using statistical tests (chi-square and t-test).

4. Data analysis

The prevalence of using substances, alcohol and neuropsychiatric drugs, and smoking by gender is represented in Table 1. According to the results, among female students 250 people do not use cigarette, alcohol, substances and neuropsychiatric drugs at all, and 20 people always use cigarette, alcohol, substances and

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neuropsychiatric drugs. Moreover, among the male students, 150 people do not use cigarette, alcohol, substances and neuropsychiatric drugs at all and 100 people always use cigarette, alcohol, substances and neuropsychiatric drugs. In general, according to the results, using cigarette, alcohol, substances and neuropsychiatric drugs is more in boys than girls. Also, the significance level indicates that boys are more dependent on cigarette, alcohol, substances and neuropsychiatric drugs than girls.

Table 1. Prevalence of substance use among students by gender

	Total	Always	often	Sometimes	Seldom	At all	Gender
P=0.006	۲۵۰	۲۰	۵۰	۷۰	۱۱۰	۲۵۰	Female
	٤۹۰	۱۰۰	۸۰	۱٦۰	۱۵۰	٤۹۰	Male
	۷۵۰	۱۲۰	۱۳۰	۲۳۰	۲٦۰	۷۵۰	Total

The frequency distribution of using cigarette, alcohol, substances and neuropsychiatric drugs by giving importance to prayer in students is shown in Table 2. The mean age of the samples was 21.56±2.8 years. Women made up 64.2% of the samples. 99.7% of the samples were Muslim, 57.9% were native and 34.8% were living in dormitories in terms of residency status. Drug use in students (10.8%), substance use (9.9%) and smoking (5.7%) included neuropsychiatric drugs (13.8%), alcohol (5.8%), drugs (4.3%) and alcohol (4.8%), respectively.

The highest percentage of smoking (3%) was among dormitory-living students. Smoking was 4.3% in men and 1.4% in women, neuropsychiatric drug use was 6% in men and 7.8% in women, substance use was 7% in men and 2.9% in women, and alcohol use was 7% in men and 3.8% in women. Native students used more alcohol (6.2% vs. 4.6%) compared to non-native ones, while using neuropsychiatric drugs (7.6% vs, 6.2%) and substances (4.8% vs. 1.5%), and smoking (3.1% vs. 2.6%) were higher in non-native students. Chi-square test showed a statistically significant correlation between giving importance to prayer with smoking, and using alcohol, substances and neuropsychiatric drugs.

Table 2. The frequency distribution of using cigarette, alcohol, substances and neuropsychiatric drugs by giving importance to prayer in students

Probability	Lack of attention		Prayer at any time		The first time prayer		Giving importance to prayer	
	Percentage	Number	Percentage	Number	Percentage	Number		Substance type
$p < 0.001$	۲.۵	۱۸	۱.۸	۱۳	۱.٦	۱۱	Using	Cigarette
	۸.۵	٦۳	۲٤.۸	۱۸٤	٦۰	٤۵۱	Not using	

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$p < 0.05$	۷.۹	۵۹	۳.۵	۲۶	۲.٤	۱۹	Using	Neuropsychiatric drugs
	۳.۱	۲۲	۲۳.۱	۱۷۱	٤۷.٦	٤٤۳	Not using	
$p < 0.001$	۳.٦	۲۵	۳.۵	۲٦	۸.۲	۲۱	Using	Addictive substances
	۷.٤	۵٦	۲۳.۱	۱۷۱	۵۹.٦	٤٤۱	Not using	
$p < 0.001$	۵	۳۷	۳.۵	۲٦	۳.۲	۱٦	Using	Alcohol
	٦	٤٤	۲۳.۱	۱۷۱	٦۰.۲	٤٤٦	Not using	

Table 3 represents the t-test. Statistical t-test showed that academic achievement was significantly lower in students who used cigarette, alcohol, substances and neuropsychiatric drugs than other students.

Table 3. Distribution of using cigarette, alcohol, substances and neuropsychiatric drugs by academic achievement in students

Probability	t-test	Number	Substance type	
$p < 0.001$	۳۹.۳۵	٤۲	Using	Cigarette
		٦۹۸	Not using	
$p < 0.001$	۳٤.٤۵	۱۰۲	Using	Neuropsychiatric drugs
		٦۳۸	Not using	
$p < 0.001$	۳٤.۱٤	۷۲	Using	Addictive substances
		٦٦۸	Not using	
$p < 0.001$	۳٦.۵۳	۸۰	Using	Alcohol
		٦٦۰	Not using	

5. Discussion and conclusion

In present study, smoking was significantly higher in men than women. Moreover, smoking and substance use were higher among students living in dormitories than students living in private and rented homes, and this could be attributed to the fact that the student period due to special circumstances such as living in dormitories, lack of parental supervision, distance from family and loneliness increases a person's vulnerability to smoking and using other drugs. In dormitories, people are with their friends and may be suggested by friends to smoke and use drugs, which is one of the important factors in increasing the likelihood of drug use. Researches have shown

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that most smokers have at least one or more smoking friends. People who have smoking friends and colleagues are naturally more complimented. In the study by Hayati et al. (2017), in 66% of the cases, friends were encourager and proposer of drugs and only 0.4% of the samples had abused drugs without any suggestion. In the present study, there was an inverse relationship between giving importance to prayer and smoking, and using alcohol, neuropsychiatric drugs and substances. Previous researches have shown that having and adhering to religious beliefs and performing religious duties is inversely related to smoking and drug use. In the present study, alcohol and drug use were higher in male students than female students. Alcohol and drug use in this study was lower than similar national and international studies. This could be due to cultural differences compared to other countries as well as environmental differences, and laws and regulations governing the Islamic Azad University, Central Tehran Branch compared to other universities. Also, alcohol use was lower in students living in dormitories than in students not living in dormitories, which could be due to the fact that alcohol use is more recreational among students and because dormitories are not recreational environments and also in Iran due to religious culture and social norms and legal prohibition of alcohol use, especially in dormitory environments and decisive treatment with drug users, and this has caused this behavior to take place mainly outside the dormitory. In this study, the use of neuropsychiatric drugs was higher in dormitory-living and non-native students. It seems that living with a family brings peace of mind to native students compared to non-native students. Also, the use of neuropsychiatric drugs was higher than the use of substances, cigarette and alcohol. Research shows that the use of neuropsychiatric drugs is more prevalent among students because they are more familiar with these drugs. The results of the present study showed that academic achievement in students using cigarette, alcohol, substances and neuropsychiatric drugs was significantly lower than other students. Due to the results of this study and the significant use of cigarette, alcohol, substances and neuropsychiatric drugs, as well as the negative effects it has on students 'academic achievement, it is necessary to increase students' knowledge about the adverse effects of neuropsychiatric drugs and for students to be encouraged to consult a psychologist and psychiatrist during times of stress. Holding counseling classes in universities and dormitories and familiarizing students with the university counseling center and attracting native students or accelerating the transfer of students who are not psychologically able to adapt to this environment can be helpful in this regard.

6. References

Ansari H, Abshenas M, Khanzadeh, GH, et al 2018, Assessment of psychiatric drug use and related factors among students of Zahedan University of Medical Sciences, Fundamentals of Mental Health, Vol.9, No.3. Pp.45-52. [In Persian]

Asayesh H, Ghorbani M, Salari H, et al 2016, Individual and family characteristics associated with the tendency of individuals to drug abuse, Journal of Gorgan University of Medical Sciences, Vol. 12, No.4, Pp. 1- 9. [In Persian]

Blanco C, Alderson D, Ogburn E, Grant BF, Nunes EV, Hatzenbuehler ML, Hasin DS. Changes in the prevalence of non-medical prescription drug use and drug use disorders in the United States: 19911992 and 2001-2020.Drug Alcohol Depend. 2007; [Epub ahead of print].

[Downloaded from jnip.ir on 2026-09-13]

Botvin G J 2015, preventing drug abuse in schools: social and competence enhancement approaches targeting individual- level etiological factors, Addictive Behavior, Vol. 25, Pp. 887- 897.

Chen K, Sheth AJ, Elliott DK, Yeager A. Prevalence and correlates of past-year substance use, abuse, and dependence in a suburban community sample of high-school students. Addict Behav. 2018; 29(2):413-23.

Dervic K, Akkaya-Kalayci T, Kapusta ND, Kaya M, Merl E, Vogel E, Pellegrini E, Friedrich MH. Suicidal ideation among Viennese high school students.Wien Klin Wochenschr. 2019; 119(5-6):174-80

Heidari H, Sharif Malmir M, Kamran A, etall 2013, Comparison of Causes of Drug Abuse from the Viewpoint of Addicted Patients and Their Families, J Health Syst Res, Vol.8, No.6, Pp. 1017- 1026. [In Persian]

Hesser M P, Caumo W. Sleep disturbances associated with minor psychiatric disorders in medical students. Neurol Sci. 2000; 23(1): 35-9

Mancheri H, Sharifi Neyestanak N.D, Seyedfatemi N, et al 2013, Psychosocial Problems of Families Living with an Addicted Family Member, Iran Journal of Nursing, Vol.26, No.83. Pp. 48-56. [In Persian]

Mardani H, Sheikhi Finney A, Kavoseyan J 2012, Prevalence of drug use among students of Islamic Azad University of Bandar Abbas, Research on Addiction, Vol.6, No.23. Pp. 65-82. [In Persian]

Mortazavi Moghadam GH, Madarshahian F, Tabiee Sh, Pejmankhah Sh, Sadeghi M 2009, The prevalence of substance abuse among university students in Birjand, Journal of Nursing and Midwifery University of Medical Sciences Birjand, Vol. 6, No. 1-4, Pp. 66-83. [In Persian]

Moulavi P, Rasoulzadeh B 2019, A Study of the factors of drug abuse tendency in the young population of the city of Ardabil, The Quarterly Journal of Fundamentals of Mental Health, Vol. 6, No. 21-22, Pp. 49-5

Rahimimoaghar A, Sahimi E. [Drug situation in the country students]. Journal of Social Welfare. 2015; 5(19): 18-27. (Persian).

Seraj Zadeh H, Faizi I. 2007. among students of public universities, Journal of Social Welfare, 6(25): 85-110.

Siam Sh 2018, Prevalence of drug abuse among the students of the various universities in Rasht, Tabib Shargh, Vol.8, No.4. Pp.279-285.

Taremian F, Bolhari J, Peyrovi H, et al 2014, [Prevalence of drug use among students in Tehran], Iranian Journal of Psychiatry and Clinical Psychology, Vol.13, No.4, Pp. 335-342. [In Persian]

Villena Ferrer A, Tellez Lapeira JM, Morena Rayo S, Donato Gallart E, Almar Marques E. Consumption of psychodrugs. Influence of family dysfunction.Actas Esp Psiquiatr. 2004; 32(3):143-8. Spanish

Zarrabi H, Najafi K, Shirazi M, Borna S, Sabahi E, Nazif F. [Prevalence of substance use among students of Guilan University of Medical Sciences]. Journal of Qazvin University Medical Science. 2009; 12(4): 69-74. (Persian).

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