Journal of Current Biomedical Reports
Volume 2, Number 3, 2021

jcbior.com
eISSN: 2717-1906

Original research

A survey of medical students' attitudes and practices towards narcotics and psychotropic drugs

Shahab Dastmardi[1], Morteza Rahbar Taromsari[2], Hamid Mohammadi Kojidi[2], Ardalan Majidinia[3], Fariba Asgari Bozayeh[4], Kourosh Delpasand[5,*]

[1]*Student Research Committee, School of Pharmacy, Guilan University of Medical Sciences, Rasht, Iran*
[2]*Department of Forensic Medicine and Toxicology, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran*
[3]*Student Research Committee, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran*
[4]*Department of Nursing, School of Nursing and Midwifery, Medical Education Research Center (MERC), Guilan University of Medical Sciences, Rasht, Iran*
[5]*Department of Medical Ethics, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran*

Abstract

Substance abuse is one of the major behavioral problems in today's human society. One of the medical uses of drugs is to relieve the pain and suffering of patients. Today, due to the widespread use of narcotics and psychotropic drugs in the control and treatment of the disease and also its use among medical students, the present study aimed to determine the attitude and practice of medical students towards the use of narcotics and psychotropic drugs. The present study was a cross-sectional analytical study that was performed on 102 medical interns of Guilan University of Medical Sciences who were selected by available methods. To collect information, a researcher-made questionnaire was used which has three sections including a checklist of demographic information, attitude assessment questionnaire of medical students and performance assessment questionnaire. The mean age of the interns was 23.8±0.21 years. In the analysis of the results, it was found that there is a significant relationship between marital status and residence status with performance score ($P < 0.05$). Based on the results of the present study, the level of students' knowledge about narcotics and psychotropic drugs among them is not at the desired level. Therefore, due to the lack of knowledge of medical students about the dangerous side effects of these drugs, education on the nature, symptoms, and side effects of psychotropic substances is recommended.

Keywords: Narcotics, Psychotropic, Medical students, Drugs

1. Introduction

Substance abuse is one of the major behavioral problems in today's human society, which the World Health Organization has described as a worrying event in the world [1]. narcotics (A substance used to relieve pain such as morphine and codeine, but are not made from opium) and psychotropic (A drug or chemical substance such as alcohol, caffeine, nicotine, marijuana, and certain pain medicines that affects how the brain works and results in alterations in mood) drugs use in young people is an important issue and is considered a public health problem. Substance use is associated with an increased risk of death, psychological and interpersonal problems, academic failure, difficulties in establishing relationships and having unwanted or unprotected sex, crime, accidents, and injuries [2]. In this regard, educational institutions

[*]**Corresponding author:**
Kourosh Delpasand, MD, Ph.D
Department of Medical Ethics, School of Medicine,
Guilan University of Medical Sciences, Rasht, Iran
Tel/Fax: +98 13 33690006
Email: kd388@yahoo.com
http://orcid.org/0000-0001-6842-3374

Received: May, 16, 2021
Accepted: July, 17, 2021

should be an organizing element in a system for preventing and confronting addictive substances [3].

Drug addiction is one of the major problems in developing countries. Since these countries have a young population, they are naturally more at risk and therefore these young people as the main and most vulnerable group are more at risk [4]. High school and college students, like other young people, are not immune to this problem [5, 6].

People may turn to addictive substances to reduce anxiety and avoid problems such as financial poverty, family problems, marital discord, inappropriate patterns of assimilation, and ultimately unemployment or euphoria. Substance abuse is a maladaptive pattern of using drugs that leads to recurring problems and adverse outcomes and involves a set of cognitive, behavioral, and psychological symptoms [7, 8]. Drug use sometimes increases physical or psychological dependence. Physical dependence increases drug tolerance, i.e., reduced drug sensitivity and withdrawal symptoms when the drug is not available [9-11]. There are many types of drugs and their range is increasing every day and new compounds are produced. The criterion of being addictive and not addictive is not a good criterion for distinguishing illegal drugs from other substances because some substances, although addictive, are not banned, such as benzodiazepines. Addictive substances are classified in several ways. In medicine and pharmacology, an addictive substance can be classified based on its chemical structure or on the effects, side effects, and conditions it causes as a result of consumption [12]. According to the Controlled Substances Act (CSA), addictive substances are often divided into five categories, including narcotics, sedatives, stimulants, hallucinogens, and anabolic steroids [13]. Due to the widespread use of narcotics and psychotropic drugs in society and also its use among medical interns, the present study was designed and conducted to determine the attitude of medical interns towards the use and prescription of narcotics and psychotropic drugs and their performance.

2. Materials and Methods

The present study is a cross-sectional analytical study that was performed on 102 medical interns of Guilan University of Medical Sciences, Rasht, Iran. Sampling was done by the available method in 2020. The instrument used includes a researcher-made questionnaire that has three parts. The first part includes a checklist of demographic information that includes questions about gender, age, marital status, residence status, income, and education of parents. The second part of the questionnaire was to evaluate the attitude of medical interns in the use of narcotics and psychotropic drugs and the third part is a questionnaire to evaluate the performance of medical interns in the use of narcotics and psychotropic drugs. The attitude questionnaire had 16 items and the answer method was 5-point Likert. To determine the validity of the content, the content validation method (survey of 5 clinical faculty members of Guilan University of Medical Sciences) and content validity index (CVI) and content validity ratio (CVR) were used, which were 0.88 and 0.92, respectively.

To evaluate the interns' performance, a researcher-made checklist with 8 questions was used and the answers were in the form of "yes" and "no" options, which were awarded 1 and 0 points, respectively. To assess the reliability, the questionnaires were distributed twice but one week apart among 25 medical interns, and the retest test method was used and the Cronbach's alpha value was 0.84. Data were collected in SPSS software version 22 and descriptive (mean, frequency, and standard deviation) and inferential (Mann-Whitney and Kruskal-Wallis) tests were used. The P-value of less than 0.05 was considered statistically significant.

3. Results

Out of 102 distributed questionnaires, four were excluded due to incomplete responding and 98 questionnaires were reviewed, of which 50 (51%) were male and 48 (49%) were female and their mean age was 23.8±0.21 years. Other demographic characteristics are presented in Table 1.

According to Mann-Whitney and Kruskal-Wallis tests, no significant relationship was found between the attitude score of medical interns and their place of residence, income and education of parents, and marital status ($P > 0.05$).

On the other hand, marriage status had a significant relationship with the performance score of narcotics and psychotropic drugs use among medical interns ($P = 0.031$). The average performance score of married people is higher than the average performance score of single people (Table 2).

Residence status had a significant relationship with performance score on narcotics and psychotropic drugs use among medical interns (P = 0.022). The average performance score of medical interns who lived with their friends was lower than the average score of other interns (Table 2). Also, the performance score on the use of narcotics and psychotropic drugs among medical interns was not significantly related to the relationship between parents 'education and parents' income and gender and age (P > 0.05).

Table 1. Demographic characteristics of medical interns

Variable name		Frequency	Percentage
Gender	Male	50	51
	Female	48	49
Marital status	Single	70	71.4
	Married	28	28.6
Place of residence	With parents	45	45.9
	With friends	19	19.4
	Dorm	18	18.4
	Private house	16	16.4
Parents' education	High school	6	6.1
	Diploma	13	13.3
	Bachelor and associate Degree	48	49
	Masters and PhD	12	12.2
	MD	19	19.4
Parents' income (IRR)	Under 5 million	21	21.4
	Between 5 and 10 million	27	27.6
	Between 10 and 15 million	30	30.6
	Over 15 million	20	20.4

Abbreviations: MD: medical doctor; IRR: Iranian Rial

Table 2. Distribution of performance scores on the use of narcotics and psychotropic drugs among medical interns

Status		Performance score			P-value
		$\bar{x} \pm$ S. E	Min	Max	
Marital status	Single	4.0 ± 44.21	2	8	0.031
	Married	5.0 ± 43.32	2	8	
Total		4.0 ± 72.18	2	8	
Residence status	Parents	4.0 ± 56.28	2	8	0.022
	Dorm	5.0 ± 17.41	2	8	
	Friends	3.0 ± 89.40	2	7	
	Private house	5.0 ± 69.35	3	8	
Total		4.0 ± 72.18	2	8	

4. Discussion

Substance abuse is one of the scourges that has befallen communities and, unfortunately, it is most prevalent among young people and adolescents. Since these materials are more emerging, the knowledge of the society is not enough about it [14]; therefore, it is necessary to conduct extensive research in this area. The present study showed that medical interns do not have the desired knowledge and attitude towards psychotropic substances. In this regard, in a study conducted on medical students in Shiraz (South of Iran), it was found that the rate of drug use was higher among single people than married people [6]. In our study, marriage status was significantly associated with performance scores on the use of narcotics and psychotropic drugs among medical interns. So that the average performance score of married people was higher than the average performance score of single

people, which can indicate the responsibility of married people compared to single people regarding the performance of these people. The results of our study were consistent with a study by Masibo et al. in Tanzania, which was conducted in both qualitative and quantitative ways [14]. In the present study, there was no significant relationship between gender and attitudes towards narcotics and psychotropic substances, which is consistent with the previous Iranian study [6].

One of the most important factors in the spread of drug use is the influence of peers and friends. Young people who have drug-addicted friends are more likely to use drugs. Therefore, if they are close friends of drug users, these young people are more likely to be driven to use drugs [2]. In this regard, in our study, residence status had a significant relationship with performance scores on narcotics and psychotropic drug use among medical interns, so that the average performance score of medical interns living with friends is lower than the average score of other interns. Peer pressure can have both positive and negative effects, depending on the quality of the peer group. In this study, living with friends may in some ways lead to poor performance.

In a study by Masibo et al., which examined high school students' knowledge and awareness of psychotropic substances, they found that students were sufficiently aware of drugs, their effects, and the problems associated with their use. The reason for reporting sufficient knowledge about psychotropic substances and their effects was to have information about the dangers of using psychotropic substances that they received from parents, siblings, media, and teachers. In the Masibo study, students were unaware of the long-term effects of psychotropic substance use, but more than 50% of our students were sufficiently aware [14]. Factors associated with narcotics and psychotropic drugs abuses are many and vary depending on individual contexts, family characteristics, complex social and environmental factors. The results of the Masibo study showed that the majority of participants had never used psychotropic substances, and few reported that they intended to use psychotropic substances [14]. In our study, 63% of students even refused to be friends with these people.

In our study, it was shown that parents 'education and parents' income had no significant relationship with performance scores on the use of narcotics and psychotropic drugs, which was consistent with other studies [14, 15]. Finally, it should be acknowledged that our sample size and studied population were limited, so our findings can not be generalized and further studies are demanded.

The results of the present study showed that the level of knowledge and practice of medical students about narcotics and psychotropic drugs is not at the desired level; therefore, due to the lack of knowledge of medical students about the dangerous side effects of psychotropic substances, education on the nature, symptoms and side effects of psychotropic substances is recommended. Also, because an unprincipled prescription of narcotics can be a violation of ethical codes, it is very important and necessary to inform the staff of the medical department about the legal and ethical standards in prescribing narcotics.

Acknowledgments

The present study was extracted from the result of an MD thesis in general medicine. This project has been done with the support of Guilan University of Medical Sciences, and therefore the researchers consider it necessary to express their gratitude to the esteemed deputy.

Author contributions

All authors contributed equally to this manuscript, and approved the final version of manuscripts.

Conflict of interests

The authors declare that they have no conflicts of interest.

Ethical declarations

It should be noted that this research design has been approved by the ethics committee of Guilan University of Medical Sciences and has an ethics code of IR.GUMS.REC.1399.46.

Consent to publish

A written informed consent was taken from the participants to publish their data.

Financial support

None.

References

1. Hockenberry MJ, Wilson D. Wong's nursing care of infants and children-E-book: Elsevier Health Sciences; 2018.
2. Abbasi-Ghahramanloo A, Fotouhi A, Zeraati H, Rahimi-Movaghar A. Prescription drugs, alcohol, and illicit substance use and their correlations among medical sciences students in Iran. Int J High Risk Behav Addict. 2015; 4(1):e21945.
3. Pishchulin VI, Rogacheva LI, Fokina LV, Fadeeva O, Novikov R, Kolupaev RV. Drug addiction prevention: experience of high education institute. Life Sci J. 2014; 11(12):566-9.
4. Rahimi Pordanjani S, Fallah Zadeh H, Mousavi M, Khazaei S, Sohrabivafa M, Momenabadi V, et al. Prevalence and Reasons for Psychoactive Drugs Use Among University Students of Medical Sciences in Yazd, Iran. Iran J Psychiatry Behav Sci. 2018; 12(1):e9384.
5. Cox RG, Zhang L, Johnson WD, Bender DR. Academic performance and substance use: findings from a state survey of public high school students. J Sch Health. 2007; 77(3):109-15.
6. Ashrafi Hafez A, Fakor Ziba M, Babaee Haidar Abadi A, Hosaini F, Razmposh E, Gharlipour Z, et al. Assessment of Psychoactive Substances Use and Their Associated Factors Among Students of Shiraz University and Shiraz University of Medical Sciences. J Ilam Univ Med Sci. 2013; 21(4):58-66.
7. Bastani P, Marshall BDL, Rahimi-Movaghar A, Noroozi A. The risk environments of people who use drugs accessing two harm reduction centers in Tehran, Iran: A qualitative study. Int J Drug Policy. 2019; 63:90-6.
8. McHugh RK, Hearon BA, Otto MW. Cognitive behavioral therapy for substance use disorders. Psychiatr Clin North Am. 2010; 33(3):511-25.
9. Grella CE, Lovinger K. Gender differences in physical and mental health outcomes among an aging cohort of individuals with a history of heroin dependence. Addict Behav. 2012; 37(3):306-12.
10. Sinha R. Chronic stress, drug use, and vulnerability to addiction. Ann N Y Acad Sci. 2008; 1141:105-30.
11. McLellan AT. Substance Misuse and Substance use Disorders: Why do they Matter in Healthcare? Trans Am Clin Climatol Assoc. 2017; 128:112-30.
12. Nattel S. Antiarrhythmic drug classifications. A critical appraisal of their history, present status, and clinical relevance. Drugs. 1991; 41(5):672-701.
13. Sajjadi M, Shariatifar N, Matlabi M, Abbasnezhad A, Basiri K, Nazemi H. The rate of knowledge and attitude toward psychoactive drugs and its abuse prevalence in Gonabad University students. Horizon Med Sci. 2009; 15(2):58-64.
14. Masibo RM, Mndeme E, Nsimba SE. An assessment of knowledge, attitudes and practices of psychoactive substance use among secondary school students in Dodoma Municipality, Tanzania. American J Res Commun. 2013; 1(4):200-40.
15. Ahmadi-Nejad M, Jadidi F, Dehghani MR, Divsalar K. Studying prevalence and pattern of taking narcotic and ecstasy drugs by patients admitted to special care centers of shahid bahonar hospital, Kerman, Iran. Addict Health. 2012; 4(1-2):57-64.