

Sudanese Medical Students' Perceptions of Psychoactive Substance Use

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Original Article

Abstract

Background: Psychoactive substance use is a significant problem and the perception of physicians and medical students for this problem is important since it may affect their behavior regarding managing patients who suffer from substance-related problems. The objective of this study was to examine the perception of Sudanese medical students regarding psychoactive substance use and its possible associations with sociodemographic factors.

Methods: This cross-sectional study was carried out at a private Sudanese medical school in Khartoum, Sudan. A self-reporting questionnaire was distributed to all consenting students and data were analyzed using SPSS software. Chi-square test was used to analyze the associations between different factors.

Findings: Three hundred and seventeen students participated in the study, with response rate = 75.5%. Among them, 113 (35.9%) were men. The mean and standard deviation (SD) of age was 21.5 ± 4.2 years. All students knew alcohol and 261 students (88.5%) reported having knowledge about cannabis. Knowledge about cannabis, cocaine, and heroin was more prevalent among female students. Most of the students disagreed with the behavior of substance use, e.g., 94.2% in the case of alcohol. Most students reported that it would be difficult - or even impossible - for them to use psychoactive substances.

Conclusion: Most of the students perceived use of psychoactive substances to be associated with moderate to severe risk. Female gender and studying secondary school in Sudan were associated with perceiving more risk. Sudanese students' perception of psychoactive substance use seems to be favorable but still increasing awareness is recommended.

Keyword: Substance-related disorders; Sudan; Students, Medical; Perception

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Introduction

Psychoactive substance use is a serious worldwide problem regarding social and health impacts.¹ According to World Health Organization (WHO), there are about 2 billion alcohol users, 185 million drug users, and 1.3 billion smokers.² Substance abuse was reported by many studies to be common among students at different levels.³ Prevalence of substance abuse was found to be ranging from 20%-40% among students at various faculties worldwide, including medical students.^{4,5} The situation in Sudan does not look far different since a study on Sudanese medical students showed that 21.3% had used one or more type of psychoactive substances.⁶ The problem does not exclude other Muslim countries although research in this regard is limited.⁷

Perception and practices of physicians and medical students towards alcohol and psychoactive substance abuse are the areas of importance since their conceptions and attitudes will affect their behavior regarding managing patients who suffer from substance-related problems and also participation in educational roles for them.⁸

This study was conducted to examine the perceptions of Sudanese medical students regarding psychoactive substance use and to assess possible associations with sociodemographic factors. For the purpose of this study, the term perception is used to describe the views of medical students regarding substance use and the risk resulting from it, and how they see the possibility/difficulty for them to use psychoactive substances.

Methods

This cross-sectional study was carried out on medical students at a private Sudanese university in Khartoum, Sudan, in 2016-2017. The School of Medicine applies a 5-year program, 10 semesters, for achieving Bachelor of Medicine and Bachelor of Surgery (MBBS) degree. It is divided into two stages; preclinical which includes the 1st three years and clinical stage which includes the other two years. Total number of registered students at all levels in the School of Medicine at the time of data collection was about 460 students. All of them were aimed to be included in the study.

Data were gathered using a questionnaire that included the sociodemographic information, e.g., age, sex, marital status, origin, financial status, and source of secondary certificate and model student questionnaire which was developed by the "United

Nations Office on Drugs and Crime" (UNODC) to assess students' drug abuse and their perception towards it. This questionnaire has been used in different countries under the Global Assessment Program on Drug Abuse (GAP) and it has been translated into many languages including Arabic⁹ which was used in this study. The questionnaire includes several parts addressing how students think about psychoactive substances. The first part asks if the student has knowledge about the specified psychoactive substance with a simple two-option answer for each substance. Another part asks about whether or not the student disapproves of people using each one of the mentioned substances, with a 4-option answer. This part is followed by asking about the extent of perceived risk resulting from the use of each psychoactive substance, and the student has to choose one of the five options according to severity of risk for each substance. Another part addresses how difficult it would be for the student to use each substance, with graded options from impossible to very easy. The results of the questionnaire were not to be presented in scores or numbers; every individual question was addressed separately to calculate the percentage of different responses.

Questionnaires were circulated to students in the lecture theater accompanied by envelopes and gathered instantly after completion. Clear instructions were provided to students about the study objectives and how to finish the questionnaire. The questionnaires did not include names or identifying information, and all participants were guaranteed for absolute confidentiality and assured of voluntary participation. Before sending them back, participants were advised to put the finished questionnaire forms in the envelopes.

The research was designed to totally cover students in the medical school but it actually engaged those who were present at lectures on the days when questionnaires were circulated. Since anonymity was maintained, it was not possible to contact the absentees afterwards.

The data were analyzed using the SPSS software (version 24, IBM Corporation, Armonk, NY, USA). Descriptive data were presented in numbers and percentages. Chi-square test was used to analyze the association of various categories. The chosen significance level was at $P < 0.05$.

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The study was ethically approved from the Review Board of SI University, Khartoum, Sudan. Permission has been acquired from the medical school officials. The informed consent was linked to the questionnaires and included the research objective, the insurance of voluntary participation, and confidentiality.

Results

Total number of questionnaires distributed to the students was 420 which was the actual number of attendees during the period of data collection, but only 317 were returned with response rate = 75.5%. One hundred thirteen (35.9%) were men (Table 1). The mean and standard deviation (SD) of age was 21.5 ± 4.2 years. All students knew alcohol. Regarding other substances, 261 students (88.5%) reported having an idea about cannabis, 239 students (81.0%) about heroin, and 234 students (79.3%) about cocaine. Almost half of the students (54.6%) reported knowledge about sedatives, 47.1% about amphetamine, 23.4% about tramadol, 20.7% about ecstasy, 20.0% about trihexyphenidyl, 14.6% about methamphetamine, and 12.2% about lysergic acid diethylamide (LSD).

Interestingly, knowledge about cannabis, cocaine, and heroin was more prevalent among

female students ($P \leq 0.001$), but it was more among male students regarding ecstasy, LSD, Akisol, tramadol, and methamphetamine ($P < 0.001$) as shown in table 2.

Table 1. Sociodemographic data of the participants

Sociodemographic factor	n (%)
Gender	
Male	113 (35.7)
Female	202 (63.7)
Missing	2 (0.6)
Origin	
Urban	283 (91.3)
Rural	26 (8.4)
Missing	8 (2.5)
Secondary certificate	
Sudanese	250 (79.1)
Arabic	50 (15.8)
Foreign	16 (5.1)
Marital status	
Single	297 (94.6)
Married	16 (5.1)
Divorced	1 (0.3)
Widow	0 (0)
Missing	3 (0.9)
Financial status	
Above average	66 (21.6)
Average	221 (72.5)
Below average	18 (5.9)
Missing	12 (3.8)
Academic stage	
Preclinical	267 (84.2)
Clinical	50 (15.8)
Total	317 (100)

Table 2. Knowledge about substance in relation to gender and academic stage

Knowledge about substance		Gender			Stage		
		Male	Female	P	Preclinical	Clinical	P
Sedatives (BDZ)	Yes	53 (52.0)	106 (55.5)	0.324	130 (52.8)	31 (64.6)	0.090
	No	49 (48.0)	85 (44.5)		116 (47.2)	17 (35.4)	
Cannabis	Yes	81 (79.4)	178 (93.2)	0.001*	221 (89.8)	40 (83.3)	0.146
	No	21 (20.6)	13 (6.8)		25 (10.2)	8 (16.7)	
Amphetamine	Yes	53 (52.0)	84 (44.0)	0.119	113 (45.9)	26 (54.2)	0.188
	No	49 (48.0)	107 (56.0)		133 (54.1)	22 (45.8)	
Ecstasy	Yes	35 (34.3)	25 (13.1)	< 0.001*	46 (18.7)	15 (31.3)	0.042*
	No	67 (65.7)	166 (86.9)		200 (81.3)	33 (68.7)	
LSD	Yes	21 (20.5)	14 (7.3)	< 0.001*	21 (8.5)	15 (31.3)	< 0.001*
	No	81 (79.5)	177 (92.7)		225 (91.5)	31 (68.7)	
Akisol (trihexyphenidyl)	Yes	41 (40.2)	17 (8.9)	< 0.001*	40 (16.3)	19 (39.6)	< 0.001*
	No	61 (59.8)	174 (91.1)		206 (83.7)	29 (60.4)	
Tramadol	Yes	38 (37.3)	30 (15.7)	< 0.001*	51 (20.7)	18 (37.5)	0.012*
	No	64 (62.7)	161 (84.3)		195 (79.3)	30 (62.5)	
Cocaine	Yes	67 (65.7)	165 (86.4)	< 0.001*	197 (80.1)	37 (77.1)	0.382
	No	35 (34.3)	26 (13.6)		49 (19.9)	11 (22.9)	
Heroin	Yes	65 (63.7)	172 (90.1)	< 0.001*	203 (82.5)	36 (75.0)	0.154
	No	37 (36.3)	19 (9.9)		43 (17.5)	12 (25.0)	
Methamphetamine	Yes	26 (25.5)	16 (8.4)	< 0.001*	29 (11.8)	14 (29.2)	0.003*
	No	76 (74.5)	175 (91.6)		217 (88.2)	34 (70.8)	

Data are presented as number and percentage

BDZ: Benzodiazepine; LSD: Lysergic acid diethylamide

*Statistically significant ($P < 0.05$)

Students in clinical stage had more knowledge about psychoactive substances, and this was statistically significant in the case of ecstasy (P = 0.042), LSD (P < 0.001), Akisol (P < 0.001), tramadol (P = 0.012), and methamphetamine (P = 0.003) as shown in table 2. Ecstasy was known more to students with foreign secondary certificate compared to those with Sudanese or Arabic certificates (P = 0.049). Regarding financial status, knowledge about some substances was more prevalent among students who had above average financial status; this was statistically significant in the case of ecstasy (P = 0.048) and tramadol (P = 0.036). No significant associations were found between knowledge about substances and other factors like origin and marital status.

Most of the students disagreed with the behavior of substance use; 94.2% in the case of alcohol, 91.6% in the case of cannabis, 92.6% regarding

hallucinogens and cocaine, and 92.9% regarding heroin. Sedative use without medical supervision was disapproved by 87.4% of students. Most of the students (94.3%) perceived that regular alcohol use presented a major or at least moderate risk (Table 3). The same table also shows that perception of risk due to substance use was significantly higher among female students. No significant associations were found between perceived degree of risk of substance use and other factors like origin, financial status, or marital status of students.

As shown in table 4, most students reported that it would be difficult - or even impossible - for them to use psychoactive substances, for example, 272 students (88.9%) reported this regarding alcohol use while 278 (90.6%) reported it in case of cannabis. This difficulty was more prevalent among female students, 191 (95.0%) compared to 81 male students (77.1%) regarding alcohol use (P < 0.001).

Table 3. Perception of substance use risk in relation to gender

Perception of risk due to the following acts		All	Gender		P
			Male	Female	
Having one or two drinks nearly every day	Moderate to severe	296 (94.0)	99 (87.6)	197 (97.5)	0.001*
	Mild or no risk	19 (6.0)	14 (12.4)	5 (2.5)	
Having 4 or 5 drinks in a row nearly every day	Moderate to severe	297 (94.3)	100 (88.5)	197 (97.5)	0.001*
	Mild or no risk	18 (5.7)	13 (11.5)	5 (2.5)	
Having 5 or more drinks in a row each weekend	Moderate to severe	271 (86.0)	84 (74.3)	187 (92.6)	< 0.001*
	Mild or no risk	44 (14.0)	29 (25.7)	15 (7.4)	
Trying cannabis once or twice	Moderate to severe	267 (84.8)	85 (75.2)	182 (90.1)	< 0.001*
	Mild or no risk	48 (15.2)	28 (24.8)	20 (9.9)	
Smoking cannabis occasionally	Moderate to severe	281 (89.2)	91 (80.5)	190 (94.1)	< 0.001*
	Mild or no risk	34 (10.8)	22 (19.5)	12 (5.9)	
Smoking cannabis regularly	Moderate to severe	295 (93.7)	99 (87.6)	196 (97.0)	0.001*
	Mild or no risk	20 (6.3)	14 (12.4)	6 (3.0)	
Trying LSD once or twice	Moderate to severe	267 (84.8)	89 (78.8)	178 (88.1)	0.021*
	Mild or no risk	48 (15.2)	24 (21.2)	24 (11.9)	
Taking LSD regularly	Moderate to severe	271 (86.0)	91 (80.5)	180 (89.1)	0.028*
	Mild or no risk	44 (14.0)	22 (19.5)	22 (10.9)	
Trying an amphetamine once or twice	Moderate to severe	263 (83.5)	87 (77.0)	176 (87.1)	0.016*
	Mild or no risk	52 (16.5)	26 (23.0)	26 (12.9)	
Taking amphetamines regularly	Moderate to severe	275 (87.3)	92 (81.4)	183 (90.6)	0.016*
	Mild or no risk	40 (12.7)	21 (18.6)	19 (9.4)	
Trying cocaine once or twice	Moderate to severe	278 (88.3)	90 (79.6)	188 (93.1)	< 0.001*
	Mild or no risk	37 (11.7)	23 (20.4)	14 (6.9)	
Taking cocaine regularly	Moderate to severe	284 (90.2)	95 (84.1)	189 (93.6)	0.007*
	Mild or no risk	31 (9.8)	18 (15.9)	13 (6.4)	
Trying ecstasy once or twice	Moderate to severe	262 (83.2)	84 (74.3)	178 (88.1)	0.002*
	Mild or no risk	53 (16.8)	29 (25.7)	24 (11.9)	
Taking ecstasy regularly	Moderate to severe	272 (86.3)	91 (80.5)	181 (89.6)	0.020*
	Mild or no risk	43 (13.7)	22 (19.5)	21 (10.4)	
Trying solvents or inhalants once or twice	Moderate to severe	265 (84.1)	88 (77.9)	177 (87.6)	0.019*
	Mild or no risk	50 (15.9)	25 (22.1)	25 (12.4)	
Taking solvents or inhalants regularly	Moderate to severe	272 (86.3)	91 (80.5)	181 (89.6)	0.020*
	Mild or no risk	43 (13.7)	22 (19.5)	21 (10.4)	

Data are presented as number and percentage

LSD: Lysergic acid diethylamide

*Statistically significant (P < 0.05)

Table 4 also shows another difference in difficulty of psychoactive substance use for a medical student. Only 10 students (66.7%) of those who received their secondary certificate from foreign countries reported that it would be difficult - or even impossible - for them to use cannabis, compared with 224 students (91.8%) of Sudanese certificate and 44 students (89.8%) of other Arabic certificates (P = 0.006). No significant difference was found in difficulty of psychoactive substance use for a medical student regarding other factors like origin, financial status, or

marital status.

Discussion

This study sheds light on the knowledge and perception of medical students on alcohol and substance use. A substantial accumulating evidence from Africa,¹⁰⁻¹⁴ East Mediterranean Region (EMR),^{8,15-17} Asia,¹⁸ and western countries¹⁹⁻²⁴ reports an increase in alcohol and substance use among university and college students and now it becomes a major concern worldwide.

Table 4. Perceived difficulty on substance use in relation to gender and source of secondary certificate

How difficult it would be for you to use:		All	Gender		P	Secondary certificate			P
			Male	Female		Sudanese	Arabic	Foreign	
A small bottle of spirits	Impossible or difficult	272 (88.9)	81 (77.1)	191 (95.0)	< 0.001*	216 (88.9)	45 (91.8)	11 (73.3)	0.136
	Easy or very easy	34 (11.1)	24 (22.9)	10 (5.0)		27 (11.1)	4 (8.2)	4 (26.7)	
Cannabis	Impossible or difficult	278 (90.6)	86 (81.1)	192 (95.5)	< 0.001*	224 (91.8)	44 (89.8)	10 (66.7)	0.006*
	Easy or very easy	29 (9.4)	20 (18.9)	9 (4.5)		20 (8.2)	5 (10.2)	5 (33.3)	
LSD or some other hallucinogens	Impossible or difficult	283 (92.5)	92 (86.8)	191 (95.5)	0.007*	229 (93.9)	44 (91.7)	11 (73.3)	0.013*
	Easy or very easy	23 (7.5)	14 (13.2)	9 (4.5)		15 (6.1)	4 (8.3)	4 (26.7)	
Amphetamine	Impossible or difficult	281 (91.8)	91 (85.8)	190 (95.0)	0.006*	229 (93.9)	43 (89.6)	11 (73.3)	0.012*
	Easy or very easy	25 (8.2)	15 (14.2)	10 (5.0)		15 (6.1)	5 (10.4)	4 (26.7)	
Sedatives	Impossible or difficult	266 (86.9)	89 (84.0)	177 (88.5)	0.173	219 (89.8)	39 (81.3)	9 (60.0)	0.002*
	Easy or very easy	40 (13.1)	17 (16.0)	23 (11.5)		25 (10.2)	9 (18.8)	6 (40.0)	
Cocaine	Impossible or difficult	283 (93.1)	94 (89.5)	189 (95.0)	0.064	231 (95.1)	42 (89.4)	11 (73.3)	0.003*
	Easy or very easy	21 (6.9)	11 (10.5)	10 (5.0)		12 (4.9)	5 (10.6)	4 (26.7)	
Ecstasy	Impossible or difficult	283 (92.5)	93 (87.7)	190 (95.0)	0.021*	229 (93.9)	44 (91.7)	11 (73.3)	0.013*
	Easy or very easy	23 (7.5)	13 (12.3)	10 (5.0)		15 (6.1)	4 (8.3)	4 (26.7)	
Heroin	Impossible or difficult	284 (92.8)	94 (88.7)	190 (95.0)	0.038*	231 (94.7)	43 (89.6)	11 (73.3)	0.005*
	Easy or very easy	22 (7.2)	12 (11.3)	10 (5.0)		13 (5.3)	5 (10.4)	4 (26.7)	
Solvents or inhalants	Impossible or difficult	277 (90.5)	90 (84.9)	187 (93.5)	0.014*	225 (92.2)	42 (87.5)	10 (66.7)	0.004*
	Easy or very easy	29 (9.5)	16 (15.1)	13 (6.5)		19 (7.8)	6 (12.5)	5 (33.3)	

Data are presented as number and percentage

LSD: Lysergic acid diethylamide

*Statistically significant (P < 0.05)

The highest prevalence is commonly identified among 16-36-year-olds;^{23,25,26} the age of freedom from parental control and independency, which may suggest this age group to be a main risk factor. However, the evidence of the association with college students is extended in many studies to the level that the prevalence among students is higher than other non-student age peers,^{14,19,20,22,27} a phenomenon which may need more attention. Students in medical colleges are not immunized against this epidemic.

Medical students are at more risk due to the high level of stress related to the tough nature of studying medicine plus their motivation for getting a higher achievement, which may encourage them to try some stimulants to stay awake for a long time to study more.^{10,13,17} Medical students are commonly exposed to stressful conditions; watching dissection of dead bodies, listening to the sad patients' stories, assessing chronically ill persons, witnessing death, being subjected to high parental expectations, and facing some financial stressors, all are strong risk factors putting them at a chronic high level of stress and subjecting them to depression, anxiety, and substance misuse, abuse, or even dependence.^{10,16,23} The high tendency to self-medication, their awareness of its pharmacological effect, and the accessibility of some psychoactive substances, e.g., analgesics like tramadol, morphine, and pethidine as well as sedatives/hypnotics like benzodiazepines (BDZs) and barbiturates are a probable gateway to substance use disorders (SUDs).^{15-17,23} On the other hand, as part of their training, medical students are expected to participate in patients counseling regarding alcohol and substance use, and being alcohol or substances users may affect their confidence and performance at one point.²⁴ Moreover, doctors and medical students are seen as a model for others; using substance is reflected as a shame in many communities, so they may be judged negatively and may not seek medical help, which is going to affect their physical and mental health and of course their academic and work performance which may lead to severe dysfunction or subject them to punishment or even losing their work.^{17,21,24}

Referring to the sociodemographic characteristics of the sample population, women are dominant in the study sample, almost by

two-third, which is going with actual numbers in many colleges of medicine in Sudan.²⁸ Interestingly, a near same ratio is observed in the studies conducted in Germany²⁰ and the United States of America (USA),²¹ while the reverse is seen in the other countries like Saudi Arabia,⁸ Nigeria,¹² Ethiopia,¹⁴ Egypt,¹⁵ Turkey,¹⁶ and Iran.¹⁷ With the consensus of almost all the previously-cited papers that alcohol and substances use is common - or even far common - among male students, the abundance of women in the study sample may mask the picture when presenting the overall percentage. So, it is wise to present the students' knowledge and perception toward psychoactive substances in a comparison manner between male and female students. Other sociodemographic factors showed that the majority of the students were from the urban origin (91.3%) and of average to above-average financial status (72.5% and 21.6%, respectively) which is expected; as it is a private (nongovernmental) university, students must afford to pay the education fees. While both rural and urban communities, the same low and high socioeconomic status ones, are both exposed to drug use and no group is exempted, it is well known that the financial factors control the geographical distribution of psychoactive substances worldwide; e.g., expensive drugs like heroin and cocaine are commonly used in rich America, Europe, and Gulf countries rather than other countries.^{7,27,28} People of low sociodemographic status use low-price and less purified drugs, so they are at higher risk for side effects and more vulnerable to the different kinds of abuse.²⁹

The majority of both male and female students in our study reported that cannabis, heroin, and cocaine were known to them. There was a significant association with female gender ($P \leq 0.001$) although - with exception of sedatives - almost 95% of female students perceived that using any psychoactive substances was impossible or very difficult for them. The most acceptable substance for male students was alcohol; 22.9% found it easy or very easy for them to use a small bottle of it.

Alcohol and cannabis are the most popular substances of abuse in Sudan as shown in the report of the first rehabilitation center in Sudan.³⁰ The same picture was presented by two studies conducted on medical students in Sudan; the first one reported that alcohol came on the third floor

after tobacco and cannabis²⁸ and the second study showed that cannabis was the third one after sedatives and alcohol.⁶ While cannabis is the first substance of abuse reported among medical students¹⁵ and in a community-based study in Egypt and alcohol is the far second one,²⁶ most of African, East Mediterranean, Asian, European, and American presented studies reported alcohol as the first addictive substance.

Around 50% of students reported knowledge about BDZ, and there was no statistically significant association with gender or academic level. Using sedatives was perceived as easy or very easy for 16.0% of male and 11.5% of female students but again this difference was not statistically significant.

Amphetamines use is commonly reported as a major drug abuse in Saudi Arabia and other Gulf countries.²⁵ More than 70% of medical students in a study conducted in Riyadh, Saudi Arabia, perceived it as a major problem.⁸ The situation in Sudan is different; i.e., in our study, only 52.0% of male and 44.0% of female students reported knowledge about amphetamines, with 87.3% perceiving its regular use as associated with moderate to severe risk. However, 14.5% of male and 5.0% of female students reported that it was easy or very easy for them to use amphetamines.

While both tramadol and trihexyphenidyl (Akisol) are commonly misused in Sudan,^{29,30} less than 50% of students reported knowledge about them. The knowledge factor showed a significant association with male gender ($P < 0.001$) and clinical grade ($P < 0.001$) for tramadol ($P = 0.012$) for Akisol. Tramadol misuse is also reported in Egypt¹⁵ and Iran.¹⁷

The lowest level of knowledge was detected about LSD (only 7.3% of female and 20.0% of male students), methamphetamine (8.4% of female and 25.5% of male students), and ecstasy (34.3% and 13.1% female and male students respectively), with a significant association between male gender and LSD, methamphetamine, and ecstasy ($P < 0.001$). It is probable that some of the students gathered their information from their clinical knowledge, as the clinical academic grade showed significant association with LSD, methamphetamine ($P < 0.001$), and ecstasy ($P = 0.042$), putting in mind that these substances are less prevalent in Sudan.²⁸⁻³⁰

The vast majority of students have perceived

the use of psychoactive substances to be associated with moderate to severe levels of risk. Concerning all 7 substances tested and without exception, perceiving substance to be associated with moderate to severe risk was significantly higher among female students compared with male ones: drinks ($P < 0.001$), cannabis ($P < 0.001$), LSD ($P = 0.020$), amphetamine ($P = 0.016$), cocaine ($P = 0.007$), ecstasy ($P = 0.020$), and solvents ($P = 0.020$). The act of having 4 to 5 drinks in a row nearly every day revealed the highest response rate as associated with moderate to severe risk for both female and male students (97.5% and 88.5%, respectively). The lowest response rate for an act that is associated with moderate to severe risk between female students was 87.1% for trying amphetamine once or twice and 74.3% between male students for trying ecstasy once or twice.

Conclusion

More than 75% of the students perceived use of psychoactive substances to be associated with moderate to severe risk. As commonly reported internationally, alcohol for men and sedatives for women were less difficult to be used.

Risk of psychoactive substance use is more perceived by female students and they think, more than male ones, that it is difficult for them to use substances. Perceived difficulty of using substances is more among students who received their secondary education in Sudan compared with those who studied abroad. Although Sudanese medical students' perceptions of psychoactive substance use seem to be more favorable than some other countries, increasing awareness of risk of substance use is still recommended.

Limitations: The limitation of this study was that it included only one medical school, so the sample may not be representative of all Sudanese medical students.

Conflict of Interests

The authors have no conflict of interest.

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Authors' Contribution

Designed the study, led data collection, performed analysis, and wrote results: AIA;

Wrote the part of discussion. Both authors revised the whole manuscript: MAA.

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درک دانشجویان پزشکی سودانی از استفاده از مواد روانگردان

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مقاله پژوهشی

چکیده

مقدمه: استفاده از مواد روانگردان مسأله قابل توجهی است و درک پزشکان و دانشجویان پزشکی از این مسأله نیز مهم می‌باشد؛ چرا که ممکن است بر رفتارشان در مورد مدیریت بیمارانی که از مشکلات مربوط به مواد رنج می‌برند، تأثیر بگذارد. هدف از انجام پژوهش حاضر، بررسی درک دانشجویان پزشکی سودانی در مورد استفاده از مواد روانگردان و ارتباط احتمالی آن با عوامل اجتماعی- جمعیتی بود.

روش‌ها: این مطالعه مقطعی در یک دانشکده پزشکی خصوصی در خارطوم سودان انجام شد. یک پرسش‌نامه خودگزارش‌دهی بین تمام دانشجویان مایل به مشارکت توزیع گردید و داده‌ها در نرم افزار SPSS مورد تجزیه و تحلیل قرار گرفت. از آزمون χ^2 برای تحلیل ارتباط بین عوامل مختلف استفاده شد.

یافته‌ها: ۳۱۷ دانشجو با نرخ پاسخ ۷۵/۵ درصد در تحقیق حاضر شرکت کردند. از میان آن‌ها، ۱۱۳ نفر (۳۵/۹ درصد) مذکر بودند. میانگین سنی شرکت‌کنندگان $۲۱/۵ \pm ۴/۲$ سال بود. تمام دانشجویان از الکل آگاه بودند و ۲۶۱ دانشجو (۸۸/۵ درصد) گزارش دادند که در مورد ماری‌جوآنا اطلاعات دارند. آگاهی در مورد ماری‌جوآنا، کوکائین و هروئین بیشتر در بین دانشجویان مؤنث شایع بود. بیشتر دانشجویان با رفتار مصرف مواد مخالف بودند (به عنوان مثال، ۹۴/۲ درصد در مورد الکل). بیشتر دانشجویان گزارش دادند که استفاده از مواد روانگردان برای آن‌ها مشکل یا حتی غیر ممکن بود.

نتیجه‌گیری: بیشتر دانشجویان استفاده از مواد روانگردان را با خطر متوسط تا شدید مرتبط دانستند. جنس مؤنث و داشتن آموزش دانشگاهی با درک خطر ارتباط بیشتری داشت. درک دانشجویان سودان از مصرف مواد روانگردان مطلوب به نظر می‌رسد، اما با این حال افزایش آگاهی توصیه می‌شود.

واژگان کلیدی: اختلالات مرتبط با مواد؛ سودان؛ دانشجویان؛ پزشکی؛ درک

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