



Profile of licit and illicit drug use among health students at a public university: a cross-sectional study

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Objective: to characterize the use of psychoactive substances among health students at a public university.

Methodology: it was carried out using the online instrument The Alcohol, Smoking and Substance Involvement Screening Test - ASSIST plus sociodemographic questions and habits after entering university, with a sample of 217 students from courses considered health area. The results were analyzed using descriptive statistics and Poisson regression, with significance at $p < 0.05$. **Results:** a significant difference in frequency was found between cocaine use and female sex (APR: 0.24; $p < 0.05$; 95%CI: 1.21-13.15) and age 22-36 years (APR: 8.46; $p < 0.05$; 95%CI: 1.90-37.67), between hypnotics and age 22-36 years (APR: 2.88; $p < 0.05$; 95%CI: 1.23-6, 61), opioids and female sex (APR: 0.067; $p < 0.05$; 95%CI: 0.008-0.56), and substance use and socializing with friends who use them (APR: 1.23, $p < 0.05$; 95%CI: 1.01-1.49). **Conclusion:** it opens up possibilities for research and preventive measures against the use of psychoactive substances among academics.

Descriptors: Students, Health Occupations; Health Behavior; Illicit Drugs; Health Knowledge, Attitudes, Practice; Universities.

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Perfil do uso de drogas lícitas e ilícitas em estudantes da saúde de uma universidade pública: um estudo transversal

Objetivo: caracterizar o consumo de substâncias psicoativas em alunos da saúde de uma universidade pública. **Metodologia:** realizou-se, por meio do instrumento *online The Alcohol, Smoking and Substance Involvement Screening Test - ASSIST*, acrescido de questões sociodemográficas e de hábitos após ingresso na universidade, com amostra de 217 alunos dos cursos na área da saúde. Os resultados foram analisados por meio de estatística descritiva e por Regressão de Poisson, com significância para $p < 0,05$. **Resultados:** demonstrou-se frequência com diferença significativa entre o uso de cocaína e sexo feminino (RPA: 0,24; $p < 0,05$; IC: 1,21-13,15), e idade 22-36 anos (RPA: 8,46; $p < 0,05$; IC: 1,90-37,67), entre hipnóticos e idade 22-36 anos (RPA: 2,88; $p < 0,05$; IC: 1,23-6,61), dos opioides e sexo feminino (RPA: 0,067; $p < 0,05$; IC: 0,008-0,56) e do uso de substâncias e convívio com amigos que as usam (RPA: 1,23, $p < 0,05$; IC: 1,01-1,49). **Conclusão:** abre-se possibilidade para pesquisas e ações preventivas do uso de substâncias psicoativas em acadêmicos.

Descritores: Estudantes de Ciências da Saúde; Conduta de Saúde; Drogas Ilícitas; Atitudes e Prática em Saúde; Universidades.

Perfil del uso de drogas lícitas e ilícitas entre estudiantes del área de la salud de una universidad pública: un estudio transversal

Objetivo: caracterizar el uso de sustancias psicoactivas entre estudiantes del área de la salud de una universidad pública. **Metodología:** se realizó, mediante el instrumento en línea *The Alcohol, Smoking and Substance Involvement Screening Test - ASSIST*, añadido de preguntas sociodemográficas y de hábitos después del ingreso en la universidad, con muestra de 217 alumnos de las carreras del área de la salud. Los resultados fueron analizados mediante estadística descriptiva y por Regresión de Poisson, con significancia para $p < 0,05$. **Resultados:** se demostró frecuencia con diferencia significativa entre el uso de cocaína y sexo femenino (RPA: 0,24; $p < 0,05$; IC: 1,21-13,15), y edad de 22 a 36 años (RPA: 8,46; $p < 0,05$; IC: 1,90-37,67), entre hipnóticos y eadad 22 a 36 años (RPA: 2,88; $p < 0,05$; IC: 1,23-6, 61), de los opioides y sexo femenino (RPA: 0,067; $p < 0,05$; IC: 0,008-0,56) y del uso de sustancias y convivencia con amigos que las usan (RPA: 1,23, $p < 0,05$; IC: 1,01-1,49). **Conclusión:** se abre la posibilidad para investigaciones y acciones preventivas del uso de sustancias psicoactivas entre estudiantes universitarios.

Descriptorios: Estudiantes del Área de la Salud; Conductas Relacionadas con la Salud; Drogas Ilícitas; Conocimientos, Actitudes y Práctica en Salud; Universidades.

Introduction

Drugs that cause alterations in the central nervous system and psychological sphere, leading to changes in behavior and thinking, are categorized as "Psychoactive Substances (PAS)". The consumption of these substances is carried out by different societies and for different reasons, from religious and medicinal to the desire to alter consciousness, such as pleasure, escape from reality, altered mood, among others⁽¹⁻³⁾.

According to the World Drug Report 2023⁽⁴⁾, around 296 million people aged 15-64 used drugs at least once in the same year. It is estimated that 219 million used *Cannabis*, 36 million used amphetamines and 22 million used cocaine. In Brazil, a study of 12,711 university students reported that 48.7% of them had used some kind of illicit psychoactive substance⁽⁵⁾.

Entering undergrad is a favorable time and makes young people vulnerable to drug use. This period presents situations such as the symbolic initiation ritual, the desire for social inclusion, anxiety, pressure and stress triggered by a new responsibility. In addition, many students live far from their families and in the company of new friends. This, coupled with easy access to drugs and the presence of mental illness, can lead to a liberal judgment about these substances and a greater propensity to use them⁽⁶⁻⁹⁾.

The abuse of PASs has several negative implications such as addiction, behavioral changes, increased risk of car accidents and dangerous behavior (unprotected sexual activity and suicide attempts), damage to public property, increased violence and homicides. At the same time, it can affect the university student's physical and mental health, leading to a loss of academic performance and engagement, which is one of the factors for failure to complete a degree, changes in sleep and wakefulness and neuropsychological problems, mainly impairing the performance of cognitive and executive activities⁽⁹⁻¹²⁾.

There have been studies on the use of PAS by students in nursing, medicine and dentistry. Thus, there is discussion about the responsibility for the repercussions of health professionals being role models for patients and concern about the psychological situation of students who use these substances^(6,13-14). However, few studies discuss an overview of the consumption of drugs of abuse in most health courses.

The study aims to describe the epidemiological characteristics of alcohol, tobacco and other drugs consumption and to verify their association with sociodemographic variables in health students at a public university.

Methodology

Study design and location

This is a cross-sectional study, with a quantitative approach, guided by the guidelines of the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) initiative⁽¹⁵⁾, which aims to guide authors to ensure more transparent and complete information in cohort, case-control or cross-sectional studies in the health area.

The sample was a random convenience sample of 217 volunteers, among 1,953 students enrolled in the seven health courses (Biomedicine, Physical Education, Nursing, Pharmacy, Medicine, Dentistry and Psychology) at a public university in the city of Maringá, state of Paraná, Brazil. The sample size, considering 95% confidence and 5% sampling error, with the most homogeneous population distribution, was 219 participants.

Inclusion and exclusion criteria

The inclusion criteria were students over the age of 18, regularly enrolled in a face-to-face undergraduate course related to the health area, at the public university under study, in the municipality of Maringá-PR, and who did or did not use PAS. The exclusion criteria were age under 18, students enrolled in other areas not considered to be "health-related" and from private educational institutions, students enrolled in distance learning courses.

Data collection and instruments used

The population of interest was approached between October and November 2020, using a self-completion, anonymous questionnaire prepared on the Google Forms website, consisting of an online version based on the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) questionnaire, plus sociodemographic questions (age, gender, race, monthly income, degree and year of enrollment) and questions on use variables (age at first use of alcohol, tobacco and other substances and in which environments, graduation and year of enrollment) and questions on variables of use (age at first use of substances, contact with people who use substances and in what environments, the incentive that led them to start using alcohol, tobacco and other drugs, consumption habits after entering university and opinion on the contribution of health professionals to prevention).

ASSIST is an instrument for assessing the pattern of alcohol and other drug use throughout life and in the last three months. It has some advantages: it is

quick to apply, standardized, easy to interpret, does not require extensive training on the part of the applicators and allows for a simultaneous approach to alcohol and other drugs. It is mainly used in secondary prevention programs for the abuse of psychoactive substances, as it can suggest the pattern of use and therefore assess the early development of abuse and dependence. Each answer corresponds to a score from 0 to 4, and can reach total values from 0 to 20. Thus, scores from 0 to 3 are considered "below the risk range"; from 4 to 15, "risk range"; and scores greater than or equal to 16, as "suggestive of dependence". From this same score, it is possible to investigate the severity of the participants' use of these substances, with the cut-off points being 0 to 3, "occasional use"; 4 to 15, "indicative of abuse"; and 16 to 20, "suggestive of dependence"⁽¹⁶⁾.

Invitations to take part in the survey were sent via email addresses, which were obtained by contacting the academic institution, academic centers and the coordinators of each course. Finally, the study sample was classified by self-selection. All the participants signed the Free and Informed Consent form, which was made available before they began answering the questionnaire. This study followed the guidelines of Resolutions 466/2012 and 510/2016 of the National Health Council and was approved by the Research Ethics Committee Involving Human Beings of the State University of Maringá (UEM), under opinion No. 3.430.374.

The health courses were grouped according to their characteristics for better interpretation of the results: clinical analysis and laboratory diagnosis (Pharmacy and Biomedicine), prescription and diagnosis (Medicine, Dentistry and Nursing) and courses related to the health area (Physical Education and Psychology).

The Microsoft Excel 2019™ package was used to systematize and organize the data obtained in tables, as well as to develop descriptive statistics and univariate analysis (frequency, percentage, mean and standard deviation). The estimated risk was analyzed using STATA version 12.0, using the chi-square test for bivariate analysis and the Poisson test for multivariate analysis, showing the estimated prevalence ratio (PR) and adjusted prevalence ratio (APR). For all the statistical tests, a 95% confidence interval and significance for $p \leq 0.05$ were considered, and trend analysis was carried out using the BioStat 2008 program version 5.0.1.

Results

Of the total number of students enrolled, 210 answered the questionnaire in full. Thus, considering the total number of participants, the sample consisted of 154 (73%) female students and 163 (78%) white students with an average age of 21.09 years (± 2.47). With regard

to income, 124 (59%) reported a monthly income of between one and five minimum wages, corresponding to R\$1,039.00 in 2020. The majority of participants said they lived with their parents or relatives (149; 71%). Regarding health courses, those related to clinical analysis and laboratory diagnosis had 81 participants (38.6%); those related to prescription and diagnosis had 57 (27.1%) and courses related to the health area had 72 (34.3%) participants. With regard to the year of the course, the initial years (1st to 3rd) were the majority, with 145 participants (69%).

With regard to the use of alcohol, tobacco and other drugs, 144 (68%) of the participants started using between 15 and 20 years of age and 187 (89%) live with people who use any of these substances. In the questionnaire, the various types of drugs, except alcohol and tobacco, were considered to be "other drugs". In addition, with regard to the habit of using alcohol, tobacco and other drugs after entering university, 106 (50%) of the participants in the survey already used alcohol before entering university and continued to do so afterwards, and 52 (25%) started drinking after entering university.

ASSIST showed that 189 (90%) of the participants had used alcohol, tobacco and/or other drugs at least once in their lives. Alcohol ranked first in terms of lifetime use (189; 90%); followed by tobacco with 120 (57%) participants; and marijuana with 90 (43%) participants.

With regard to use in the last three months, there was a predominance of alcoholic drinks (161; 77%); tobacco derivatives (59; 28%); and marijuana (38; 18%). There was a predominance of women for lifetime use of alcohol (143; 93%); use in the last three months for alcohol (122; 79%); and tobacco (44; 29%). In addition, it was also observed that the majority (86; 41%) of the study participants presented a pattern of use in the "risk range" for alcohol and that there were participants in the "suggestive of dependence" range for alcohol (3; 1%); tobacco derivatives (1; 0.5%); and marijuana (1; 0.5%), as described in Table 1.

In the bivariate analysis, statistically significant associations were found between cocaine use and the following independent variables: female biological sex (PR: 0.21; $p < 0.05$; CI: 0.63-0.68) and age between 22-36 years (PR: 9.4; $p < 0.05$; CI: 2.08-42.46). For the use of inhalants, statistically significant associations were found with age between 22-36 years (PR: 2.08; $p < 0.05$; CI: 1.08-4.03) and the last years of enrollment (4th and 5th years) (PR: 2.23; $p < 0.05$; CI: 1.15-4.29). For the use of hypnotics, statistically significant associations were found with 22-36 years (PR: 3.34; $p < 0.05$; CI: 1.59-6.98) and the last years of enrollment (PR: 2.23; $p < 0.05$; CI: 1.09-4.54). As for opioids, there were statistically

significant associations between female biological sex (PR: 0.06; $p < 0.05$; CI: 0.007-0.49) and age between 22-36 years (PR: 5.22; $p < 0.05$; CI: 1.04-23.33). With regard to substance use, there was a statistically significant association in relation to socializing with people who use substances, namely family members (PR: 1.23; $p < 0.05$; CI: 1.1-1.3), friends (PR: 1.35;

$p < 0.05$; CI: 1.1-1.7), colleagues from educational institutions (PR: 1.1; $p < 0.05$; CI: 1-1.2) and work colleagues (PR: 1.12; $p < 0.05$; CI: 1-1.2) (Table 2). In addition, there was a significant change in the use of tobacco (PR: 7.97; $p < 0.05$; CI: 4.84-13.13) and drugs (PR: 9.34; $p < 0.05$; CI: 5.65-15.44) in relation to entering university, as shown in Table 2.

Table 1 - Distribution of the ASSIST questionnaire score according to risk groups in health university students at a public university. Maringá, PR, Brazil, 2020

Type of substance	Score* n (%)			
	0 Abstainers	1-3 Below the risk range	4-15 Risk range	16-20 Suggestive of addiction
Alcoholic beverages	42 (20.00)	79 (37.62)	86 (40.95)	3 (1.43)
Tobacco products	137 (65.24)	41 (19.52)	31 (14.76)	1 (0.48)
Marijuana	154 (73.33)	37 (17.62)	18 (8.57)	1 (0.48)
Cocaine, crack	203 (96.67)	3 (1.43)	4 (1.90)	0
Amphetamine derivatives	193 (91.91)	13 (6.19)	4 (1.90)	0
Inhalants	201 (95.71)	6 (2.86)	3 (1.43)	0
Hypnotics/sedatives	190 (90.48)	11 (5.24)	9 (4.28)	0
Hallucinogens	194 (92.38)	14 (6.67)	2 (0.95)	0
Opioids	204 (97.15)	4 (1.90)	2 (0.95)	0

*Score defined by ASSIST

Table 2 - Distribution and association of sociodemographic characteristics and use of psychoactive substances in relation to university students in the health area of a public university. Maringá, PR, Brazil, 2020

Variables	N(%) (n=210)	Substances														
		Alcohol			Tobacco			Marijuana			Cocaine			Amphetamines		
		PR*	CI†	p‡	PR*	CI†	p‡	PR*	CI†	p‡	PR*	CI†	p‡	PR*	CI†	p‡
Sex																
Male	56 (26.7)	1			1			1			1			1		
Female	154 (73.30)	1.13	0.9-1.3	0.065	0.96	0.7-1.2	0.75	0.9	0.6-1.3	0.52	0.21	0.6-0.7	0.01*	0.73	0.4-1.4	0.317
Race																
White	163 (77.62)	1			1			1			1			1		
Not white	47 (22.38)	0.93	1.8-1.1	0.277	0.87	0.6-1.2	0.365	0.74	0.5-1.2	0.19	0.35	0.04-2.7	0.308	0.84	0.4-1.8	0.647
Age																
18-21 years	142 (67.62)	1			1			1			1			1		
22-36 years	86 (32.38)	0.97	0.9-1.1	0.574	1.21	1.0-1.5	0.111	1.21	1.0-1.5	0.24	9.4	2.1-42.5	<0.01*	1.04	0.6-2.0	0.893
Monthly income																
1-5 MW [§]	124 (59.50)	1			1			1			1			1		
6 up to more than 10+ MW [§]	86 (40.95)	1.08	0.9-1.2	0.074	0.99	0.8-1.3	0.968	0.96	0.7-1.3	0.80	0.54	0.2-2.0	0.354	1.3	0.7-2.3	0.402
Variables	N(%)	Inhalants			Hypnotics			Hallucinogens			Opioids			Use of PASs		
		PR*	CI†	p‡	PR*	CI†	p‡	PR*	CI†	p‡	PR*	CI†	p‡	PR*	CI†	p‡
Male		1			1			1			1			-	-	-
Female		0.63	0.3-1.2	0.179	0.69	0.3-1.5	0.32	0.51	0.2-1.1	0.07	0.06	0.007-0.5	<0.01*	-	-	-

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Variables	N(%)	Substances													
		Inhalants			Hypnotics			Hallucinogens			Opioids		Use of PASs		
Race															
White		1			1			1			1		-	-	-
Not white		1.05	0.5-2.3	0.892	1.04	0.4-2.5	0.92	1.15	0.5-2.8	0.743	0.58	0.7-4.71	0.608	-	-
Age															
18-21 years		1			1			1			1		-	-	-
22-36 years		2.08	1.1-4.0	<0.05*	3.34	1.6-6.9	<0.01*	1.25	0.6-2.7	0.569	5.22	1.0-26.3	<0.05*	-	-
Monthly income															
1-5 MW [§]		1			1			1			1		-	-	-
6 up to 10+MW [§]		1.1	0.6-2.2	0.775	0.9	0.4-1.9	0.78	1.22	0.6-2.6	0.606	0.58	0.1-2.9	0.506	-	-
Socializing with users															
In the family															
No	69 (32.86)	-	-	-	-	-	-	-	-	-	-	-	-	1	
Yes	141 (60.95)	-	-	-	-	-	-	-	-	-	-	-	-	1.23	1.1-1.3
Among friends															
No	40 (19.05)	-	-	-	-	-	-	-	-	-	-	-	-	1	
Yes	170 (80.95)	-	-	-	-	-	-	-	-	-	-	-	-	1.35	1.1-1.7
At the HEI															
No	104 (49.52)	-	-	-	-	-	-	-	-	-	-	-	-	1	
Yes	106 (50.48)	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1-1.2
At work															
No	196 (93.33)	-	-	-	-	-	-	-	-	-	-	-	-	1	
Yes	14 (6.67)	-	-	-	-	-	-	-	-	-	-	-	-	0.92	0.9-1

*PR = Prevalence ratio, Poisson regression; [†]95% CI = 95% confidence interval; [‡]Significant p-value <0.05; [§]MW = Brazil minimum wage, year 2020: R\$ 1,039.00

In the multivariate analysis carried out with the PAS and the independent variables that showed statistical significance, the association of cocaine with the female sex (APR: 0.24; p<0.05; CI: 1.21-13.15) and with age 22-36 years (APR: 8.46; p<0.05; CI: 1.90-37.67);

hypnotics with age 22-36 (APR: 2.88; p<0.05; CI: 1.26-6.61); opioids with the female sex (APR: 0.067; p<0.05; CI: 0.008-0.56); and substance use with friends who use alcohol, tobacco and/or other drugs (APR: 1.23; p<0.05; CI: 1.01-1.49) (Table 3).

Table 3 - Adjusted analysis of the association between sociodemographic characteristics and the use of psychoactive substances in relation to university students in the health area of a public university. Maringá, PR, Brazil, 2020

Variables	Substances											
	Cocaine			Hypnotics			Opioids			Use of PASs [§]		
	APR*	CI [†]	p [‡]	APR*	CI [†]	p [‡]	APR*	CI [†]	p [‡]	APR*	CI [†]	p [‡]
Sex												
Male	1			-	-	-	1			-	-	-
Female	0.24	1.-21-13.15	<0.05*	-	-	-	0.067	0.008-0.56	<0.05*	-	-	-
Age												
18-21 years	1			1			-	-	-	-	-	-
22-36 years	8.46	1.90-37.67	<0.05*	2.88	1.26-6.61	<0.05*	-	-	-	-	-	-
Socializing with friends												
No	-	-	-	-	-	-	-	-	-	1		
Yes	-	-	-	-	-	-	-	-	-	1.23	1.01-1.49	<0.05*

*APR = Adjusted Prevalence Ratio, Poisson Regression; [†]CI = 95% Confidence Interval; [‡]p significant value <0.05; [§]PASs = Psychoactive Substances

A comparative analysis of the percentages of use and their distribution between the course levels showed an increase in the use of substances according to the course level. Between the first and fifth terms, there was a 40% increase in the use of

other drugs, followed by tobacco with a 19% increase and alcohol with a 4% increase. A trend analysis was carried out between undergraduate grades and the use of alcohol, tobacco and other drugs, but there were no significant results.

Discussion

The results of this study characterize the consumption of alcohol, tobacco and other drugs at a public university. The prevalence of females, whites, living with parents and an average age of 21 was compatible with that observed in other studies^(1,17-21). Regarding monthly income, one study analyzed income as an economic class⁽²¹⁾, while other studies assessed financial situation as family income in value (< R\$2,600)⁽⁴⁾ or as a source of income, thus characterizing financial dependence on parents⁽²³⁾. In our study, we found that the substances most used by university students were alcohol, tobacco and marijuana, corroborating the data presented in a national study⁽²⁴⁾.

ASSIST showed a prevalence of alcohol, tobacco and cannabis use in the last three months, as shown in a 2019 study⁽²²⁾. The data on marijuana, hypnotics and sedatives with lower frequency are in partial disagreement with the results presented by authors in 2004⁽¹⁶⁾. Thus, this study presented divergent results, possibly indicating differences in the populations studied and their patterns of use. For the use of hypnotics and sedatives, a study carried out in 2018⁽¹⁰⁾ showed that 11.1% of the participants were considered to be suggestive of abuse of these substances.

In addition, the high prevalence ratio for the use of tobacco and other drugs at the time of entering university was assessed. It was found that the consumption of these substances among university students in their final years was noticeably higher when compared to those in their first years. At the same time, a study carried out in 2008⁽²⁵⁾ pointed out that the use of tobacco, marijuana and other drugs among university graduates was higher, almost double, than among first semester students, despite the fact that health students in the last semesters had obtained information on topics such as drugs, pharmacology and the like during their undergraduate studies.

Study evaluating the trajectory of alcohol use during the years from high school to college⁽²⁶⁾, and another study, evaluating the trajectory between years of courses at a university⁽²⁷⁾ corroborate the results of this study in relation to alcohol use. The increased use of PAS is possibly due, among other things, to encouragement from friends, emotional factors and easy access, especially to other drugs. Considering that the population studied is made up of university students in the health sector, the large number of academic activities, added to the pressure and demands of family and the educational institution, may lead them to greater emotional impairment and affect their quality of life. In this way, it is believed that students use alcohol, tobacco and other drugs, for example, as an escape valve from reality and as leisure time⁽⁶⁻⁹⁾.

The high prevalence of PAS consumption shown in this study shows that various factors, such as personal, family, emotional and, above all, "being in the health sector", influence the use of these substances. Therefore, it can impair the cognitive performance of students and generate problems for society, based on dependence and increased risk of vehicle accidents, violence and unprotected sexual relations and even sexual abuse, corroborating this study on PAS with nursing students⁽⁶⁾. It is important to consider that this conduct is necessary not only for a specific course, but for all undergraduate courses in the health area. However, research has shown that these prevalences can change according to the sociocultural and demographic variations in which the study was carried out, so more research is needed on social contexts to fully analyze the increase in the use of these substances during undergraduate studies⁽²⁶⁻²⁷⁾.

It is important to note that studies indicate that living with people who use alcohol, tobacco and other drugs can influence adolescents' behavior, and report that the living environment is not significant, but rather the reciprocity and mutuality of the relationship^(23,28-29). In our study, in addition to the reason for the increased prevalence of substance use and living with friends and family who use substances, it was also possible to infer a high frequency in the environment of the educational institution. A study carried out in 2021⁽²¹⁾ reported that around 30% of participants did not receive or perceive any support from the institution. In the same context, another study⁽³⁰⁾ exposes the importance of welcoming attitudes by the university towards the use of alcohol and other drugs, due to the importance of the issues surrounding the consumption of these substances. The data presented in this study seems to indicate that the university's preventive actions are scarce and/or ineffective, which is reflected in the results obtained.

Furthermore, even with the high incidence of alcohol, tobacco and other drug use presented in this study, there are participants who believe that a health professional can contribute to controlling these substances, mainly through lectures and awareness-raising in hospitals on the subject. However, there is a contradiction between the ways in which health professionals can contribute to reversing these indices and the prevalence of PAS use, since it is clear that the vast majority of participants have already used some substance in their lives; however, the third highest form of contribution was "with an example of not using". This highlights the importance of combining theoretical and practical knowledge in the lives of future health professionals⁽⁶⁾. It also highlights the need for further studies to better understand the discrepancies found on the subject and the possibilities for actions to develop more effective preventive and awareness-raising measures for students.

The study has some limitations, such as the method, being a descriptive and cross-sectional study; and the non-representative sample size, only one institution, not allowing a greater understanding of the motivations that led to the consumption of alcohol, tobacco and other drugs among university students in the health area. Therefore, there is a need for multicenter studies with more robust samples that provide a better understanding of the pattern of use of these substances in public universities.

Conclusion

The participating population showed a reduced prevalence of female cocaine and opioid use; in addition, the increased frequency of cocaine and hypnotic use between the ages of 22 and 36, and the use of substances with friends who use alcohol, tobacco and/or other drugs. The increased frequency of the use of these substances in the environment of the educational institution was noted, opening up possibilities for studies to analyze the role of the institution in preventive actions on the use of alcohol, tobacco and other drugs among students.

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