

# PSYCHOACTIVE SUBSTANCE USE PREVENTION AND REDUCTION PROGRAMS IN UNIVERSITY STUDENTS: A SYSTEMATIC REVIEW

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## Abstract

**Objectives:** the objective of this systematic review is to describe the findings on the use of psychoactive substances in university students and the factors associated with their use to delve into the need to propose programs to reduce and prevent their use. The following questions were asked: What are the factors associated with the consumption of psychoactive substances in university students? Are there protective factors for mental health in university students? Is it necessary to implement programs to prevent and reduce the consumption of psychoactive substances in university students? Likewise, it is intended to alert higher education institutions about the young population at risk for the consumption of psychoactive substances.

**Methods:** the study is a descriptive-exploratory systematic review that assumes a methodological route for a thematic search in the thesauri of MeSH, PubMed, and Scopus. The following equations defined the search: (factors associated with psychoactive substance use) [MeSH Terms] AND (youth people) OR (university students) AND (programs for the prevention) AND (university students). As inclusion criteria, publications had to be related to intervention programs for university students and factors associated with psychoactive substance use between the years 2013-2021 and those related to psychoactive substance use in high school students, children, couples, drivers, and pregnant women were excluded. **Results:** The number of records identified in the search with MeSH terms was 91,619 documents. Subsequently, a title selection was performed containing the aforementioned combinations of search terms in the title. Regarding the inclusion of the abstract, full articles were retrieved and carefully examined for content, yielding 58 articles eligible for review. Subsequently, duplicate titles and those that did not meet the criteria were eliminated, obtaining under inclusion criteria a total of 13 articles included in the review. **Conclusions:**

The studies found emphasize the responsibility of the University to be interested in proposing interventions to reduce and prevent the use and abuse of psychoactive substances among students. These interventions could be focused on strengthening support networks, promoting protective factors, psychological well-being and intervention with the family, a program that promotes a positive vision of the future, which translates into planning a life project while becoming professionals and inclusion in groups from the wellbeing programs or any other offered by the university.

## INTRODUCTION

The use of psychoactive substances has become a public health problem worldwide, and it occurs in all populations. Young university students have become a focus of attention, given that in higher education institutions there is a greater tendency to initiate the use of psychoactive substances, which in this research is referred to as PAS. Gebresilassie *et al.* (2020) consider that approximately half of the university students consume psychoactive substances and almost one in five is at risk of dependence.

Research on the subject considers that the beginning of a university career is usually accompanied by high levels of stress that lead students to consume psychoactive substances from early on, which is why stress is associated with consumption and during academic training, it triggers a series of psychological effects in the student together with the need for consumption, and this appears in young people as an incentive that allows them to cope with the demands of their new academic life. These authors argue that substances activate the neural circuits of reward and pleasure, allowing better stress control and, therefore, are used by students in search of a sense of well-being. In fact, according to studies, it has been confirmed that the use of alcohol, tobacco and illicit drugs is highly prevalent among medical students (Candido *et al.* 2018, Gebresilassie *et al.* 2020, Pupulim *et al.* 2015).

In that sense, the consequences of excessive use of these substances go far beyond the organic damage already described extensively in the literature. Alcohol abuse, for example, correlates with an increase in crime statistics, traffic violence and absenteeism. This information can be verified in the results provided in the table of data relationships. Therefore, the consumption of PAS by university students, in any career, is considered a serious problem for public health. However, the

situation is often aggravated, since students do not seek expert help and tend to hide the problem (Roncero *et al.*, 2014). Therefore, it is essential to recognize the real prevalence of substance abuse in college students. In addition, the causes of this consumption and possible measures to mitigate it needs to be clarified and evaluated.

The study of PAS consumption is an urgent problem in the university community. The magnitude of the global problem of PAS consumption becomes more evident if it is taken into account that more than 1 in 10 drug users is a problematic user, suffering from drug use disorders or drug dependence (Zarrouq *et al.* 2016), with the possible risk factors for consumption such as PAS, gender, school levels, age groups, tobacco smoking status, smoking status of friends and family members, and feelings of insecurity within the family.

In addition, Patiño-Masó *et al.* (2013) mention that one of the threats to the physical and mental health of university students is cocaine consumption, given that the use of other drugs is more frequent among cocaine users than among users of drugs other than cocaine. The studies found emphasize the commitment of the higher education institution to be interested in proposing interventions to reduce and prevent PSA abuse among university students.

Therefore, the objective of this systematic review is to describe the findings on the use of psychoactive substances in university students associated with consumption to delve into the need to propose interventions to reduce and prevent consumption, taking into account that, as university students begin their careers, the initiation of PAS consumption increases. To address this objective, the following questions were asked: What are the factors associated with the consumption of psychoactive substances in university students? Are there protective factors

for mental health in university students? Is it necessary to implement programs to prevent and reduce the consumption of psychoactive substances in university students? It is also intended to alert higher education institutions about the young population that is at risk for the consumption of psychoactive substances.

## METHOD

For the present research, a thematic search was conducted using the thesauri of MeSH, PubMed, and Scopus. The MeSH terms used (psychoactive substance use) (programs for the prevention), were identified by the terms suggested in their Thesaurus tool.

The following equations defined the search:

PubMed: (factors associated with psychoactive substance use [MeSH terms] [MeSH Terms] AND youth people OR programs for the prevention [MeSH Terms] OR university students AND youth people AND factors associated with psychoactive substance use AND university students [MeSH Terms] OR youth people AND programs for the prevention of psychoactive substance use in young people).

Scopus: (university students OR youth people AND programs for the prevention of psychoactive substance use in young people).

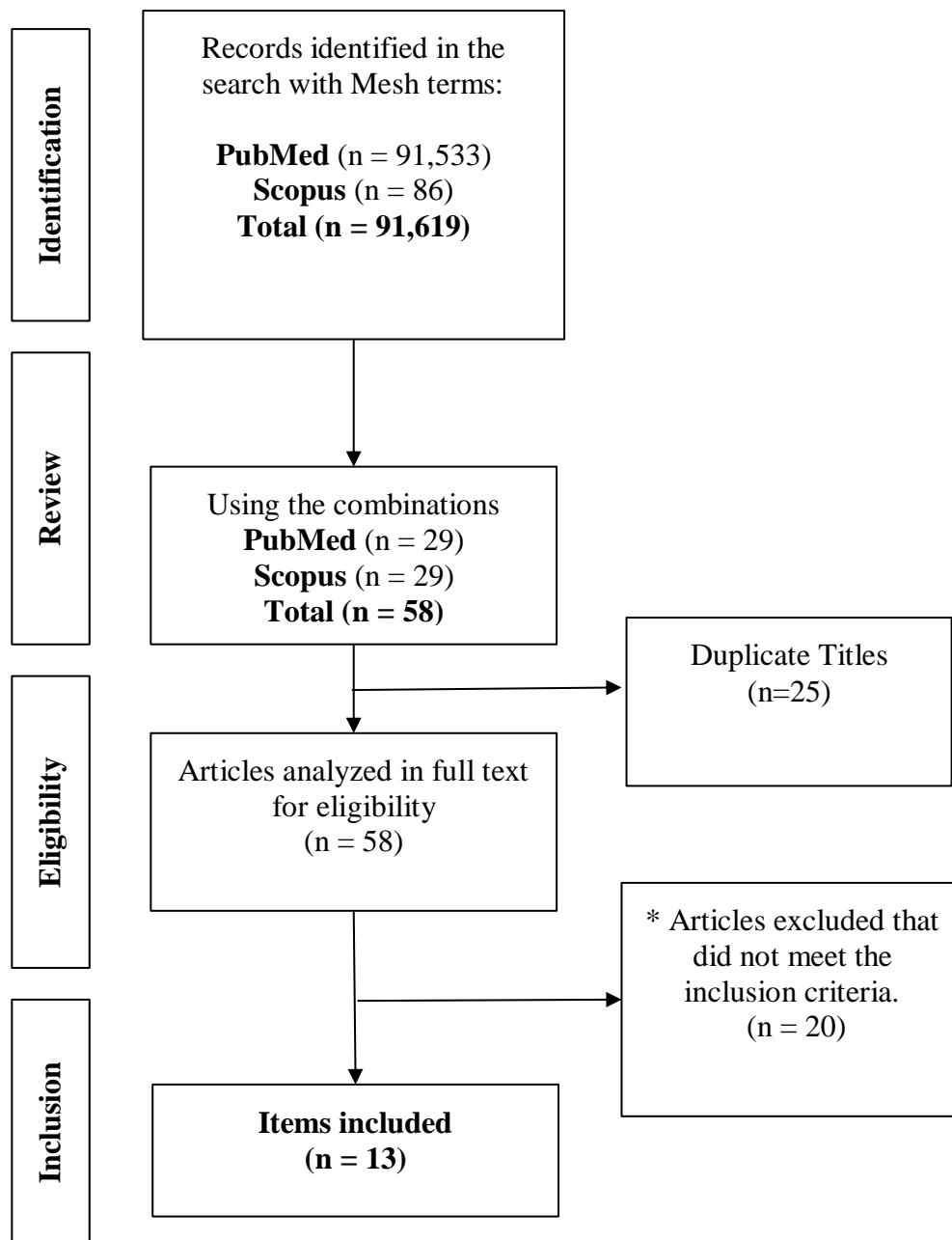
The following inclusion/exclusion criteria were defined in the search:

a. Inclusion criteria: publications had to be related to prevention programs for university students and factors associated with psychoactive substance use between the years 2013-2021.

b. Exclusion criteria: Documents related to a psychoactive substance use related to secondary school students, children, partners, drivers, and pregnant women. Or psychoactive substance use related to sexual problems, practices, or dysfunction was excluded.

For a critical evaluation of the articles consulted, a complete reading of each study was made. Those studies that were published in duplicate or found in more than one database were only taken once. After reviewing all the sources, the study proceeded to organize the successful evidence in Table 1. Figure 1 shows the diagram by which the study selection process was carried out with greater clarity.

**Figure 1.** Diagram of the study selection process.



\*Articles were excluded because they evaluated PAS use in high school students, children, couples, drivers, and pregnant women. Or related to sexual problems, practices or dysfunction.

First, the inquiry targeted journal articles published in English between 2013 and 2021 containing the aforementioned combinations of search terms in the title or abstract. This

preliminary search revealed a total of 91,619 eligible articles on intervention programs for college students and the factors associated with PAS use (Pubmed: 91,533 and in Scopus: 86).

Secondly, a selection of titles was made. Titles not relevant or not related to the topic, titles that mentioned PAS consumption in high school students, children, couples, drivers, and pregnant

women. Or consumption of psychoactive substances related to practical problems or sexual dysfunctions was discarded. Regarding the inclusion of the abstract, full articles were retrieved and their contents were carefully examined, obtaining 58 articles eligible for review. Subsequently, duplicate titles and studies that did not meet the criteria defined for inclusion were eliminated, the total of articles obtained under inclusion criteria was 13 articles which are included in the review.

To achieve a broad view of how existing research has addressed the topic, and a complete understanding of the implications of consumption, publications were included independent of the study design or data analysis employed by their authors. After the resulting selection according to the above criteria, full copies of all papers were obtained for review.

First, the objectives or research questions posed by the authors were listed to determine the scope of the researchers' interests. Second, all methods of data collection and analysis, results and data of interest were identified, followed by the results of each article. Finally, a summary of the main findings is presented, considering their relevance.

A total of 13 articles were found to be relevant to the predefined search terms and inclusion criteria, all published between 2013 and 2021. Regarding the topic of prevention and reduction of PAS consumption among university students, research has been conducted in countries such as Ethiopia, Brazil, Botswana, Northern Ethiopia, North Central Morocco, Berlin, Khartoum Sudan, Holland, Gerona Catalonia, Turkish Republic of Northern Cyprus, Tunisia Africa and Colombia, with Brazil being the country with the most research, thus offering validity to the review in terms of sociocultural variety. The main topics of interest were: the prevalence of PAS consumption, factors associated with consumption, level of dependence on consumption, prevention campaigns and the need for awareness when implementing prevention and consumption reduction programs among university students. The instruments most used by the authors were: the alcohol screening test and the World Health Organization's drug screening questionnaire, questionnaires to assess consumption, the smoking test and systematic reviews.

Table 1 shows the results according to the characteristics of each study.

## RESULTS

**Table 1. Characteristics of the studies.**

Authors, year, country	Type of study	N° students	Results	Data of interest	Instruments	References
Gebresilassie, A., Hadush, Z., Gebrezgi, G., Hagos, W., Mussie, M., Gebregiorgis, G., and Hackett, M. (2020). Ethiopia.	Quantitative cross-sectional survey, with multistage sampling.	1220	The lifetime prevalence of psychoactive substance use was 66.5% (95% confidence interval [CI] = 64% to 69%), whereas current prevalence was 49% (95% CI = 46% to 52%). Eighteen percent reported having used psychoactive	Approximately half of the university students used psychoactive substances and almost one in five were at risk of dependence. The likelihood of use increased with seniority in	Multinomial logistic regression to identify factors associated with psychoactive substance use. The level of dependence was determined using the	Gebresilassie, A., Hadush, Z., Gebrezgi, G., Hagos, W., Mussie, M., Gebregiorgis, G., & Hackett, M. (2020). <b>Prevalence of, Factors Associated with and Level of Dependence of Psychoactive Substance Use among Mekelle University Students, Ethiopia. <i>International journal of environmental research and public</i></b>

substances, but not currently, while 33.5% reported never having used psychoactive substances. The current prevalence of alcohol use was 35.5%, tobacco use was 7.8%, and khat use was 5.7%. Of current users, 17% (95% CI = 14% to 20%) were at moderate to high risk of dependence. Students older than 21 years are more likely to use psychoactive substances.

college. Evidence-based strategies are needed to prevent use and college students from becoming dependent. The need for intervention to stop current psychoactive substance use is apparent; this may also hold promise for reducing dependence.

WHO alcohol, tobacco and substance screening test classification. Psychoactive substance use status was determined from the first two questions of the ASSIST tool: "In your life, which of the following substances have you ever used?" followed by ("In the last three months, how often have you used the substances you mentioned?").

*health*, 17(3), 847.  
<https://doi.org/10.3390/ijerph17030847>

**Candido, F. J., Souza, R., Stumpf, M. A., Fernandes, L. G., Veiga, R., Santin, M., and Kluthcovsky, A. (2018). Brazil**

Descriptive-exploratory study.

99 articles, of which 16 were selected.

Regarding drug use, the studies found were unanimous in pointing to alcohol as the substance most consumed by medical students. Although the prevalence of smoking has decreased in recent years, several studies continue to indicate that tobacco is the second most consumed drug. Among illicit drugs, the most consumed were

High consumption of psychoactive substances was observed, although medical students are aware of their harmful effects. The high prevalence of the habit is contradictory. The situation seems to derive from the fact that alcohol is the most socially accepted drug and, therefore,

The SciELO and MEDLINE databases were used. A total of 99 articles were found, of which 16 were selected for this review.

**Candido, F. J., Souza, R., Stumpf, M. A., Fernandes, L. G., Veiga, R., Santin, M., & Kluthcovsky, A. (2018). The use of drugs and medical students: a literature review. *Revista da Associação Médica Brasileira* 64(5), 462-468. <https://doi.org/10.1590/1806-9282.64.05.462>.**

marijuana, solvents, sprays and anxiolytics. ether and its consumption is not seen as something that should be discouraged or evaluated by expert health professionals.

- Olashore, A., Ogunwobi, O., Totego, E., and Opondo, P. (2018). Botswana** Correlational 401 Alcohol was the most commonly consumed psychoactive substance (31.9%). The age of onset of consumption of most psychoactive substances was between 15 and 18 years of age. Current use of alcohol ( $p = 0.045$ ), amphetamine-type stimulants ( $p = 0.004$ ) and benzodiazepines ( $p = 0.021$ ) was associated with significant psychological distress. A positive association was observed between low participation in religious activities and substance use (OR = 4.63; 95% CI: 2.03-10.51), while a negative association was observed between not having a friend who uses drugs and substance use (OR = 0.44; 95% CI: There is a significant substance abuse problem in Botswana's university population. The findings followed the global trend, with alcohol being the most commonly abused substance. Religious involvement shows potential to be one of the solutions to this problem, but how to harness its protective influences is an area that requires further study.
- Modified World Health Organization Student Drug Use Questionnaire and the 12-item General Health Questionnaire (GHQ12) to assess the pattern of psychoactive substance use and its relationship to psychological distress among college students.
- Olashore, A., Ogunwobi, O., Totego, E., & Opondo, P. (2018). Psychoactive substance use among first-year students in a Botswana University: pattern and demographic correlates. *BMC Psychiatry, 18*(1), 270. <https://doi.org/10.1186/s12888-018-1844-2>**

		0.19-0.99).				
Northern Ethiopia	Gebreslassie, M., Feleke, A., & Melese, T. (2013). Quantitative cross-sectional study	764	The lifetime prevalence of khat chewing, alcohol drinking, and cigarette smoking among study participants was 28.7%, 34.5%, and 9.5%, respectively. Likewise, the current prevalence of khat chewing, alcohol drinking, and cigarette smoking was 27.9%, 32.8%, and 9.3%, respectively. The most common reasons for consuming khat, alcohol, and cigarettes were to stay alert while reading, 40.6%, to relax, 65.5%, and to relieve stress, 37.7%, respectively. Ever drinking alcohol was strongly associated with cigarette smoking [AOR: 6.54, 95% CI: (2.66, 16.05)].	This study revealed that the use of psychoactive substances has become an urgent public health problem among university students.	Multistage sampling technique. Data were collected using pre-tested self-administered questionnaires. Data were cleaned, coded, entered into EPI-INFO version 3.5.1 and transferred and analyzed using the SPSS version 20 software package.	Gebreslassie, M., Feleke, A., & Melese, T. (2013). <b>Psychoactive substances use and associated factors among Axum University students, Axum Town, North Ethiopia.</b> <i>BMC public health</i> , <i>13</i> , 693. <a href="https://doi.org/10.1186/1471-2458-13-693">https://doi.org/10.1186/1471-2458-13-693</a>
	Zarrouq, B., Bendaou, B., El Asri, A., Achour, S., Rammouz, I., Aalouane, R., Lyoussi, B., Khelafa, S., Bout, A., Berhili, N., Hlal, H., Najdi, A., Nejjari, C., and El	Cross-sectional study	3.020	The overall lifetime prevalence of smoking was 16.1%. Cannabis had the highest lifetime prevalence at 8.1%, followed by alcohol at 4.3%, inhalants at 1.7%, non-prescription psychotropic substances at 1.0%, cocaine at 0.7%, heroin at	The prevalence among all students reported by the present study was comparable to the national prevalence. Efforts should be made to initiate psychoactive substance	Anonymous self-administered questionnaire to assess psychoactive substance use among a sample. Stratified random cluster sampling. Factors



<p><b>Rhazi, K. (2016).</b> Northern center of Morocco</p>			<p>0.3%, and amphetamines at 0.2%. Psychoactive substances use was more associated with men than with women. The risk factors identified were: smoking tobacco, living with a family member who uses tobacco, and feeling insecure within the family.</p>	<p>prevention programs among students, designing such programs based on the significant factors associated with psychoactive substance use identified in this study (the family).</p>	<p>associated with psychoactive substance use were identified by multivariate stepwise logistic regression analysis.</p>	<p><b>sectional questionnaire survey. <i>BMC public health</i>, 16, 468. <a href="https://doi.org/10.1186/s12889-016-3143-5">https://doi.org/10.1186/s12889-016-3143-5</a>.</b></p>
<p><b>Viohl, L., Ernst, F., Gabrysch, J., Petzold, M. B., Köhler, S., Ströhle, A., and Betzler, F. (2019).</b> Berlin</p>	<p>No mention of</p>	<p>9351</p>	<p>The study revealed a high prevalence of lifetime (69.3%), past-year (45.9%) and past-month (28.3%) illicit substance use. Students in Berlin appear to show higher rates of illicit substance use than previously recorded for individuals of the same age in the general German population and university students in other cities.</p>	<p>It is relevant for the prevention and early intervention of substance use and abuse to formulate prevention programs. Since bisexual orientation and open cohabitation were the main factors positively associated with the prevalence and extent of illicit substance use.</p>	<p>An online questionnaire assessing sociodemographic data and various relevant aspects of legal and illegal substance use, such as pattern and frequency of use, as well as risk behavior, was developed and distributed among Berlin university students.</p>	<p><b>Viohl, L., Ernst, F., Gabrysch, J., Petzold, M. B., Köhler, S., Ströhle, A., &amp; Betzler, F. (2019).</b> 'Higher education' - substance use among Berlin college students. <i>The European journal of neuroscience</i>, 50(3), 2526-2537. <a href="https://doi.org/10.1111/ejn.14340">https://doi.org/10.1111/ejn.14340</a></p>
<p><b>Ibn Auf, A., and Alnor, M. (2020).</b> Khartoum, Sudan</p>	<p>Cross-sectional study</p>	<p>317</p>	<p>All students were aware of alcohol and 261 (88.5%) reported knowledge of cannabis. Knowledge about cannabis, cocaine and heroin was more frequent among female</p>	<p>Most students perceived psychoactive substance use to be associated with moderate to severe risk. Female gender and being in high school in Sudan were</p>	<p>A self-report questionnaire was distributed to all consenting students and the data were analyzed with SPSS software. The Chi-square</p>	<p><b>Ibn Auf, A., and Alnor, M. (2020).</b> Sudanese Medical Students' Perceptions of Psychoactive Substance Use. <i>Addiction &amp; health</i>, 12(3), 186-195. <a href="https://doi.org/10.22122/ahj.v12i3.269">https://doi.org/10.22122/ahj.v12i3.269</a></p>

			students. Most students reported that they would find it difficult - or even impossible - to use psychoactive substances.	associated with higher risk perception. Awareness raising is recommended.	test was used to analyze the associations between the different factors.	
<b>Boclin, K., Cecílio, F., Faé, G., Fanti, G., Centenaro, G., Pellizzari, T., Gavioli, E., Mario, D. N., and Rigo, L. (2020). Brazil</b>	Cross-sectional study	287	The prevalence of psychoactive substance use among the students was 24.7%. Among these students, a high frequency of psychoactive drugs had been prescribed by physicians (95.8%) and for relaxation or stress relief (73.2%). Women, medical students (compared to dental students) and participants with lower academic performance were more likely to use psychotropic drugs.	There was a high prevalence of psychoactive drug use among the students of the higher education institution investigated. Some variables (female sex, stress, medical students, and low academic performance) were associated with the outcome.	They responded to a self-administered questionnaire on sociodemographic, lifestyle and health variables. Univariate and bivariate analyses were used in the statistical analysis with Pearson's chi-square test (P value < 0.05). -Multivariate analyses were used to estimate odds ratios (OR) and their respective 95% confidence intervals. SPSS software, version 20.0, was used.	<b>Boclin, K., Cecílio, F., Faé, G., Fanti, G., Centenaro, G., Pellizzari, T., Gavioli, E., Mario, D. N., &amp; Rigo, L. (2020). Academic performance and use of psychoactive drugs among healthcare students at a university in southern Brazil: cross-sectional study. <i>Sao Paulo medical journal = Revista paulista de medicina</i>, 138(1), 27-32. <a href="https://doi.org/10.1590/1516-3180.2019.0182.R1.2110">https://doi.org/10.1590/1516-3180.2019.0182.R1.2110</a> 2019</b>
<b>Kunst, L., Gebhardt, W. (2018). Netherlands</b>	No mention.	446	Of all students, 22.9% indicated having used party drugs at least once, with a notable difference by gender (39.2% of males vs. 16.2% of	Harm reduction/prevention interventions could benefit from focusing on social norms and targeting	An online questionnaire was administered, asking about party drug use, demographic	<b>Kunst, L., Gebhardt, W. (2018). Prevalence and Psychosocial Correlates of Party-Drug Use and Associated Problems among University Students in the Netherlands. <i>Substance</i></b>

			<p>females). Of all predictors, lifetime and regular party drug use was most strongly related to lenient and descriptive norms in friends, and low motivation to comply with parents.</p>	<p>students who are heavily involved in a party drug-friendly environment while experiencing less parental influence</p>	<p>characteristics, social norms and personality (Big Five, impulsivity and aggressiveness). Univariate linear regression and multivariate bootstrap analyses were used.</p>	<p><i>use &amp; misuse</i>, 53(12), 2077-2088.  <a href="https://doi.org/10.1080/10826084.2018.1455700">https://doi.org/10.1080/10826084.2018.1455700</a></p>
<p><b>Patiño-Masó, J., Gras-Pérez, E., Font-Mayolas, S., and Baltasar-Bagué, A. (2013).</b>   <b>Gerona, Catalonia.</b></p>	<p>Observational, descriptive, cross-sectional study</p>	2139	<p>Of the participants, 47.2% were men and 52.8% were women, with an age range between 17 and 35 years (median=21 years, SD=3.14). One percent of the participants considered themselves to be regular cocaine users. Nine out of 10 students also consumed alcohol (95.2%) and cannabis (90.5%).</p>	<p>College students have been shown to have health-threatening habits, such as cocaine use. Preventive and educational programs at the university may be necessary to reduce and prevent substance abuse among college students.</p>	<p>A self-constructed questionnaire was used to obtain information regarding gender, age, faculty and consumption status.</p>	<p><b>Patiño-Masó, J., Gras-Pérez, E., Font-Mayolas, S., &amp; Baltasar-Bagué, A. (2013).</b> Consumo de cocaína y policonsumo de sustancias psicoactivas en jóvenes universitarios [Cocaine abuse and multiple use of psychoactive substances in university students]. <i>Enfermería clínica</i>, 23(2), 62-67.  <a href="https://doi.org/10.1016/j.enfcli.2013.02.003">https://doi.org/10.1016/j.enfcli.2013.02.003</a>  <a href="https://doi.org/10.1016/j.enfcli.2013.02.003">https://doi.org/10.1016/j.enfcli.2013.02.003</a></p>
<p><b>Çakici, E., Çakici, M., Eş, A., Ergün, D. (2014).</b>   <b>Turkish Republic of Northern Cyprus.</b></p>	<p>No mention.</p>	1323	<p>Lifetime cigarette smoking was 69.5% and boys smoked more than girls. Lifetime consumption of alcoholic beverages was 81.0%. Lifetime use of any illicit drug was 10.9% and the proportion was higher for boys. Beliefs and attitudes about substance use do</p>	<p>Repeat prevalence studies of substance use among college students at certain intervals will be useful in tracking changes in rates of substance use and determining the most preferred substances so</p>	<p>The questionnaire was designed to obtain data on students' sociodemographic characteristics, the frequency of their use of cigarettes, alcohol and other psychoactive drugs, and</p>	<p><b>Çakici, E., Çakici, M., Eş, A., Ergün, D. (2014).</b> The prevalence and risk factors of substance use among university students in Turkish Republic of Northern Cyprus. <i>Anadolu Psikiyatri Dergisi</i>, 15(2), 10.5455/apd.157227.</p>

			not depend on social class, but on seeing consumption as something normal, typical of the age. University students consider that it helps them to relieve stress.	that prevention programs can be planned more effectively.	students' beliefs and attitudes about substance use.	
<b>Jebali, C., Kahloul, M., Ibn Hassine, N., Chebil, N., and Mrizak, N. (2019). Tunisia, Africa</b>	Cross-sectional study.	500.	The use of the three psychoactive substances was reported by 16.4% of the respondents. High dependence on tobacco, alcohol and cannabis was reported by 48.7%, 60% and 95.7% of the students, respectively. The risk of cannabis dependence was significantly associated with the male gender ( $p=0.001$ ) and living away from family ( $p<0.001$ ). After multiple binary logistic regressions including the variables of interest, only the male gender was associated with alcohol dependence.	The fight against addictive behaviors among students must include adequate prevention programs for better education on the harmful risks of psychoactive substances.  Random sample.	An anonymous questionnaire containing sociodemographic characteristics .  Fagerström test to assess smoking dependence, the FACE (Formula for Alcohol Attitude by Interview) test to detect alcohol risk behaviors, and the Cannabis Abuse Screening Test (CAST) to identify cannabis dependence.	<b>Jebali, C., Kahloul, M., Ibn Hassine, N., Chebil, N., &amp; Mrizak, N. (2019). Addictive behaviors in nursing students in a private Tunisian institute, <i>Revue Medicale de Bruxelles</i>, 40(3), 133-139. 10.30637/2019.18-083.</b>
<b>Restrepo-Escobar, S., Cardona, E. (2021). Medellín, Colombia.</b>	Narrative review.	No men tion.	The use of psychoactive substances shows a behavior similar to that reported by epidemiological studies; the prevalence of use	The following are highlighted as risk factors: life cycle and ease of access; and as protective factors:	A search was carried out in the databases PubMed, Lilacs, Scielo, Dialnet. A chain search was also performed	<b>Restrepo-Escobar, S., Cardona, E. (2021). Educational and prevention campaigns. A review on the consumption of psychoactive substances in young university students in Colombia.</b>

is higher for legal substances, and the age of onset is lower for these substances.

satisfaction with the career and positive vision of the future.

and other studies were located using the bibliographic reference lists of the studies retrieved in the primary search.

*Interdisciplinaria*, 38(2), 199-208.  
10.16888/INTERD.2021.38.2.13.

## DISCUSSION

The consumption of PAS in university students, of any career, is considered a major problem because of its consequences, which generate seriousness for public health (Gebreslassie *et al.* 2013). The changes generated by taking on university studies aggravate the situation in some way, so higher education institutions are called to strengthen protection programs that help in the processes of adaptation to the new life and minimize the risk of consumption in the young population. According to Candido *et al.* (2018), some factors are associated with the increase of PAS consumption in university students, and the main one of them is gender, being men, the population with the highest tendency to be consumers. So, if men are more likely to consume psychoactive substances, women try to hide, which also aggravates the situation (Zarrouq *et al.*, 2016).

It is important to highlight gender when studying the consumption of PAS in university students, it is a very marked difference in most research (Boclin *et al.*, 2020; Zarrouq *et al.*, 2016) observed that men had a greater tendency to consume all types of drugs, except for anxiolytics and antidepressants, which were consumed more frequently by women. In addition, the use of psychoactive substances tends to be initiated at early ages, with alcohol being the most premature (Candido *et al.*, 2018). Smoking or drug use is still considered shameful and inappropriate for women, so it is possible that women, do not honestly report their use of psychoactive substances becoming a source of bias that could increase their prevalence in them (Zarrouq *et al.*, 2016). Moreover, according to Ibn Auf and Alnor

(2020), almost all university students perceive that PAS use is associated with moderate to the severe risk and this has to do with stigmatization. The female gender tends to consider consumption shameful, so it is recommended to increase the need to generate awareness as they have to shy away from relating experiences when it comes to illegal psychoactive substances, which is not the case when it comes to pharmaceuticals and placebos. Thus, gender, profession and institution of higher education are associated with the prevalence of PAS use in young university students (Boclin *et al.*, 2020).

On the other hand, having a pleasant attitude towards the consumption of alcohol and other substances is also considered a factor associated with consumption, which, according to the authors, becomes a strong predictor of dropout and poor academic performance (Candido *et al.*, 2018; Boclin *et al.*, 2020). With the panorama experienced through the different investigations analyzed, these proposed strategies focused on reducing academic dropout, as well as inviting the creation of psychological support programs for university students focused on identifying the risk of consumption and strengthening protective factors (Restrepo-Escobar and Cardona, 2021).

However, alcohol remains the most consumed drug by young university students (Babalola *et al.*, 2013; Olashore *et al.*, 2018; Jebali *et al.*, 2019; Patiño-Masó *et al.*, 2013), and in second place is tobacco (Candido *et al.*, 2018 and Olashore *et al.*, 2018). As in other parts of the world, the authors consider, that easy access to the purchase and sale of alcohol is a strong predictor of increased consumption (Restrepo-Escobar and Cardona,

2021). On the other hand, there is a high rate of early initiation of inhalants: tobacco and alcohol, which is possibly due to their availability to adolescents mainly (Olashore *et al.*, 2018).

On the other hand, the authors reveal the finding of a correlation between stress and PAS consumption as an associated factor in university students. Consumption in this case is assumed as an escape from the stress levels generated by the university career (Çakici *et al.*, 2014, Boclin *et al.*, 2020 and Gebreslassie *et al.*, 2013).

Çakici *et al.* (2014) found that beliefs in young people are fundamental in the consumption of psychoactive substances. On the one hand, they can be negative when it is considered that drugs do not generate harm and also do no good, and on the other hand, they are protective factors when religious-type beliefs helped young people to stay away from consumption (Cándido *et al.*, 2018).

Researchers agree that universities should create support programs through different strategies during the first year of education for their students to counteract mental health risks, low academic performance or dropout and socioeconomic problems associated with the use of psychoactive substances (Gebreslassie *et al.*, 2013 and Olashore *et al.*, 2018). Candido *et al.* (2018) also mention some protective factors associated with consumption. The first one is the family, having an unfavorable attitude against the consumption of psychoactive substances, and finally, having a job, since the occupation allows university students to move away from consumption. It is also important to keep in mind, as an element of protection or risk, satisfaction with the career and the positive vision that young people are having about the future (Restrepo-Escobar *et al.*, 2021), becomes relevant factor in the study of the causes and intervention of consumption.

The studies focus on the prevalence of use in college students. In addition, the authors so far mostly investigated dependence on PAS use. They agree that interventions designed to stop the current use of psychoactive substances may also be promising to reduce the level of dependence (Gebresilassie *et al.*, 2020). For their part, Viohl *et al.* (2019) also consider it relevant for the prevention and early intervention of substance use

and abuse to formulate prevention programs. Harm reduction/prevention interventions could benefit from focusing on social norms and targeting students who are highly involved in an environment conducive to psychoactive substance use while experiencing less parental influence (Kunst and Gebhardt, 2018). Finally, support networks, play an important role in the prevention and reduction of consumption.

## CONCLUSIONS

The studies reviewed agree that there are some factors associated with PAS consumption in young university students, as well as other protective factors; in this sense, gender is one of the first factors associated with consumption. A great concern then arises among the scientific community, since men consume a greater variety of substances, and culturally they have naturalized/normalized consumption. The numbers of men who consume are higher than those of women, while women still view consumption with certain social stigmatization, which could be generating the differences in the research data, but at the same time, the shame that is seen in the female gender can generate the concealment/camouflage of the reality in them, and be a favorable factor for the maintenance of consumption. What is clear is that women consume more antidepressants and pharmacological substances than men.

Continuing with the review of associated factors, stress was found in several studies to be a factor associated with PAS use in young university students. The level of stress generated by studying for a career, the changes experienced when entering university, and poor academic performance are factors that increase stress in young people and, consequently, they find an escape in the consumption of psychoactive substances.

Separating from the family and moving to another city is also related to substance use since the studies show that the family is a protective factor that minimizes the risk of substance use. However, having a family member who is a consumer may be a risk factor, as well as moving away from the family, joining peer groups with consumption

habits or frequenting places where consumption takes place, such as social events, parties or meetings of peers who have these habits.

The studies reviewed emphasize the responsibility of the institution of higher education to be interested in proposing alternatives to minimize the risks of consumption, such as creating from the welfare programs, in addition to the activities offered by these agencies, a program of accompaniment, awareness and orientation during the first 4 enrollments, to strengthen students and help them focus on achieving their professional, personal and family goals, as well as to generate intervention strategies to reduce and prevent the use and abuse of psychoactive substances among university students from the moment they enter the university, and to create links with support networks that become protection mechanisms.

The literature has shown that the consumption of PAS substances significantly affects people's lives, since their nervous system faces a series of changes that trigger mental disorders, which disrupt mental health and generate psychological discomfort, which is reflected in the affected person, preventing comprehensive professional training, personal, family and social development.

The recent evolution of the patterns of consumption of psychoactive substances that are evident in university students, demands an investigation focused on finding the reasons why the actions that are being developed do not minimize consumption, on the contrary, this is increasing more, as well as the beginning of the consumption of psychoactive substances also occurs at younger ages, as well as the forms of consumption are in constant variation and increase. Only if these questions are solved will it be possible to propose an effective alternative solution to the issue under study. These interventions could be focused on a thorough study of the factors associated with drug use, as well as on enhancing the protective factors that minimize the risk of drug use, generating intervention strategies that promote mental health, psychological well-being and programs that promote a positive vision of the future, which translates into planning a life project while becoming a professional.

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