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Prevalence and characteristics of alcohol consumption among university students

Prevalência e características do consumo de álcool entre universitários

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ABSTRACT
This research aimed to know about alcohol consumption among students at a university in southern Brazil. A cross-sectional, quantitative study was carried out with Biomedicine students (n = 134) using the Alcohol Use Disorders Identification Test, translated version. Statistical tests were used to verify the association between categorical variables. There was a predominance of women, aged 18 to 21 years. There was an early onset of alcohol consumption, prior to arrival at the university, linked to parties and the company of friends. After entering the course, 41.04% said they had increased their intake (p = 0.0001). As for risk, 72.38% were classified as low risk consumers, 19.39% as risk consumers, 5.98% high risk and 2.25% dependent. Being a health academic and knowing the losses associated with alcohol consumption does not favor the adoption of a healthy lifestyle. It is evident that the use of alcohol is not exclusively influenced by the knowledge of the risks.

Keywords: Alcohol drinking in college. Public health. Students.

RESUMO
O objetivo desta pesquisa foi conhecer o consumo de álcool entre estudantes de uma universidade no sul do Brasil. Realizou-se estudo transversal, quantitativo, com acadêmicos de Biomedicina (n=134) por meio do instrumento *Alcohol Use Disorders Identification Test,* versão traduzida. Utilizou-se teste estatístico para verificar associação entre variáveis categóricas. Houve predomínio de mulheres, de 18 a 21 anos. Verificou-se início precoce de consumo de álcool, anterior à chegada à universidade, vinculado a festas e companhia de amigos. Após ingressar no curso, 41,04% disseram ter aumentado a ingestão (p=0,0001). Quanto ao risco, 72,38% foram classificados como consumidores de baixo risco, 19,39% como de risco, 5,98% de alto risco e 2,25% dependentes. Ser acadêmico da área da saúde e conhecer os prejuízos associados ao consumo do álcool não favorece a adoção de um estilo de vida saudável. Evidencia-se que o uso de álcool não é exclusivamente influenciado pelo conhecimento dos riscos.

Palavras-chave: Consumo de álcool na faculdade. Estudantes. Saúde pública.

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INTRODUCTION

Alcohol has been one of the legal drugs most used by different cultures for years. Due to the property of being able to cause dependence, its excessive intake deserves attention, constituting an important public health problem. The high consumption occurs because it is an easily accessed drink, it has low cost and its use is stimulated by advertisements.[1,2,3]

The consumption of alcoholic beverages by young people has started earlier and earlier. Despite the existence of a Brazilian law prohibiting the sale to minors under 18, figures from the Second National Survey on Alcohol and Drugs point to a 9% increase in alcohol experimentation by young people before the age of 15 between 2006 and 2012. Research indicates that in the university environment this is intensified, and data from the National Secretariat on Drug Policies show that alcohol and other drug intake among university students is more frequent than in the general population; 86.2% have already used alcohol in their lifetime.[1,4,5]

The university is the place of greatest behavioral transition, where students acquire greater independence. Leaving the parents' home, social acceptance and demands mean that alcoholic beverages are consumed as a way to unwind, to escape from the problems and responsibilities acquired during that period.[2,7] In addition, the frequent invitations to parties and beer parties, spread around the campus, contribute as an incentive to consumption and consequently, its overuse.[7,8,9]

The increase in excessive drugs use, especially alcohol, has been worrying the general population, due to damage to physical and mental health, associated with car accidents, violence, sexual abuse, unprotected sex and losses to academic performance.[10,11]

Data from the 3rd National Survey on Drug Use by the Brazilian Population (III LNUD), conducted in 2015, showed that the consequence most often associated with alcohol use was driving under the influence of alcohol, corresponding to approximately 11.5 million individuals in this condition in the 12 months prior to the interview and 1 million who were involved in traffic accidents after drinking.[12] In the 18 to 24 age group the survey estimated that 1.9 million people drove vehicles under this condition.[12] The Pan American Health Organization (PAHO)[13] reported in 2019 that about 1.35 million people die each year from traffic accidents. About three quarters (73%) of these deaths occur among young men under 25 years old.[13]

Thus, the present study aimed to know the prevalence and characteristics of alcohol consumption among students in the Biomedicine course, contributing to the knowledge of habits among university students. Scientific production on harmful use of alcohol is still scarce, and screening such as the one presented here is important to support actions to promote individual and collective health.

METHODOLOGY

The study followed the recommendations of the statement Strengthening the Reporting of Observational Studies in Epidemiology (Strobe), which includes recommendations to improve the quality of the description of observational studies.[14] The research was approved by the Permanent Committee of Ethics in Research Involving Human Beings of the State University of Maringá (COPEP - UEM), under number 2,197,387. The students were instructed about the purpose and anonymity of the study, and those who agreed signed the Informed Consent Form (ICF), in accordance with Resolution No. 466/12 of the Research Ethics Committee.

This is a cross-sectional, quantitative study, carried out based on the application of an anonymous data collection instrument, self-completed, answered individually, in the classroom, by university students from the first to the fourth year, studying full-time, of the Biomedicine course at the State University of Maringá (UEM) in 2017. The population consisted of 150 university students enrolled in the course.

The data collection instrument was applied after authorization from the course coordination and took place through visits to the classrooms with the permission of the professor. After a brief explanation about the study and its objectives, the ICF was distributed, anonymity was guaranteed and it was emphasized that filling in was voluntary.

The number of individuals present was also one of the requirements for completing the questionnaires. Therefore, more than one visit was made to the classrooms on different days in order to cover a larger number of participating students.

The inclusion criteria were to be a university student enrolled in the undergraduate course in Biomedicine at UEM and to accept to participate in the research voluntarily. The exclusion or loss criteria, on the other hand, were not signing the informed consent form, not fully completing the questionnaire, not being present in the classroom on data collection days or being on school leave.

The use of instruments that allow tracking the inappropriate use of alcoholic beverages and the identification of risk groups provides reliability and brings the possibility to assist in proposing actions. The Alcohol Use Disorders Identification Test (AUDIT), created by the World Health Organization (WHO), has a good acceptance, is easy to apply and presents accuracy and speed in the assessment of the degree of impairment with alcohol, and can assist in carrying out interventions[15], the reason why it was employed. This is a closed-ended self-administered questionnaire, validated for the Brazilian context.[6,16,17]

The questions in the questionnaire refer to the last 12 months; the first three measure the amount and frequency of regular or occasional alcohol use, the next three investigate symptoms of addiction and the final four relate to recent problems in life related to alcohol consumption. The score ranges from 0 to 40 points and four levels: low-risk consumption or abstinent (0 to 7 points); risky consumption (8 to 15 points); harmful use or high risk consumption (16 to 19 points); and probable dependence (20 or more points), which suggest a brief intervention, inserted in primary health care and aimed at healthcare professionals.[15,16,17]

For the construction of the database, Microsoft Excel® (2007) was used, whereas the statistical analysis occurred using the R software (R DEVELOPMENT CORE TEAM, 2014). The variables under study are categorical, and to check the association between them, the non-parametric Chi-square test was chosen. In cases where the assumptions for applying this test were not met, Fisher's Exact test was performed. The level of significance adopted was 5%.

RESULTS

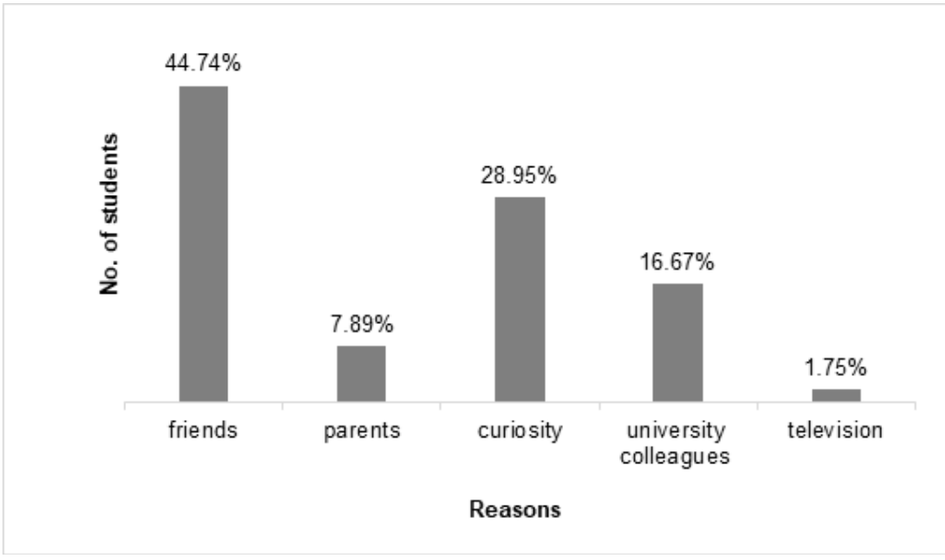
All 200 students enrolled in the undergraduate course in Biomedicine - UEM were invited to participate in the study, but only 134 completed the questionnaire, which corresponds to 88.16% of those enrolled in 2017. Table 1 presents the socio-demographic data of this population. It is observed that the majority is female and has an average age of 20.53 $\pm$ 2.99 years.

Table 1. Sociodemographic data of the study population

Variable	n	%
Sex		
Female	104	77.61
Male	30	22.39
Age		
17	9	6.72
18	24	17.91
19	19	14.18
20	24	17.91
21	26	19.40
22	11	8.20
23	6	4.48
24	7	5.22
25	3	2.24
27	1	0.75
29	2	1.49
31	1	0.75
40	1	0.75
Year		
1st year	31	23.13
2nd year	33	24.63
3rd year	31	23.13
4th year	39	29.11
Age at onset of alcohol consumption		
11-14 years	15	11.20
15-20 years	95	70.89
> 21 years	5	3.73
Does not consume	19	14.18

Source: research data.

Most students started drinking alcoholic beverages before getting into university, as shown in Table 1. Several reasons were pointed out to start this habit, and among the 115 students who declared drinking alcohol, the majority (44.74%) said that it was due to encouragement from friends, according to the information presented in Figure 1.



Source: research data.

Figure 1. Reasons leading to the onset of alcohol consumption.

Among the situations mentioned in which these young people use alcoholic beverages (n = 115), 55.26% consume to accompany the group of friends, 27.19% at parties, 7.89% to relax when they are sad or facing problems and 9.65% when they feel like it.

Regarding the frequency of consumption, most students of all academic years stated that this occurs between one and four times a month. No significant association was found between the frequency of consumption and the academic year (p value = 0.563).

In all years, it was possible to observe a change in the habits of drinking alcohol throughout the academic years, with 41.04% of the students claiming to have increased consumption. Thus, the association between the habit and the academic year was significant (p value = 0.0001).

The characterization of consumption by university students defined by AUDIT showed that the majority of students fit into the low risk or abstinent group (72.38%). However, 19.39% were classified as at risk, and 5.98% at high risk. In addition, 2.25% had a case of alcohol dependence. The AUDIT classification did not show any significant association with the academic year (p value = 0.065).

Table 2. Patterns of alcohol consumption according to the academic year

	Academic year					
	1st year (%)	2nd year (%)	3rd year (%)	4th year (%)	Total (%)	*p* value
Frequency						0.563
Never	2.98	2.24	2.980	6.72	14.92	
Once a month or less	9.70	8.21	8.210	7.46	33.58	
2 or 4 times a month	9.70	11.19	7.460	10.45	38.80	
2 or 3 times a week	0.75	2.24	4.480	3.73	11.20	
4 or more times a week	0.00	0.75	0.000	0.75	1.50	
Habit after starting university						0.0001
Started	0.75	6.72	5.220	3.73	16.42	
Increased	5.97	11.19	11.940	11.94	41.04	
Does not consume or decreased	3.73	2.98	2.980	8.22	17.91	
The same	13.69	3.73	2.980	5.23	24.63	
AUDIT classification						0.065
Abstinent or low risk	17.16	15.67	15.670	23.88	72.38	
Risk	5.22	7.46	2.980	3.73	19.39	
High risk	0.75	1.50	3.730	0.00	5.98	
Dependent	0.00	0.00	0.750	1.50	2.25	

Source: research data.

Regarding the amount of doses consumed, 33.33% reported drinking between three and four, 31.58%, one to two, and 35.09%, more than five. Among the group that drinks alcohol, 44.73% said they felt remorse or guilt after drinking, while 37.72% reported not being able to remember what happened after alcohol abuse in the last year.

DISCUSSION

The consumption of alcoholic beverages in Brazil exceeds the world average. According to the WHO[3], individuals over 15 years of age drink around 6.4 liters of alcohol in the world, whereas, among Brazilians, this number is 7.8 liters per person. Harmful use is one of the risk factors for morbidity and mortality. During 2016, this was the cause of the death of three million cases worldwide.

The average of alcohol abuse in the countries of America (22%) is above that observed worldwide (16%). Brazil has a lower percentage than that of the Americas and the world,[3] however, there is a tendency to increase consumption in the populations of young people, the elderly and women.[18]

Data released by the Center for Information on Health and Alcohol (Cisa) also indicate that consumption has consequences in the short term (hangover, alcohol blackout, involvement in situations of violence and traffic accidents) and in the long term (dependence, liver cirrhosis, deficit cognitive and some types of cancer).[18] Such consequences are the result of the increase of early consumption and impact the future, causing an increase in public spending.[18]

This is due to the fact that measures to reduce harmful alcohol consumption are not a priority in public policies. Among the countries of America, Brazil has the highest rate of deaths associated with alcohol abuse among young people.[19]

When analyzing the age at which the interviewees of the present study began to consume alcoholic beverages, it was observed that this occurred before starting higher education - and, in most cases, when they were still minors. These data corroborate the First Nationwide Survey on the Use of Alcohol, Tobacco and Other Drugs among College Students, according to which 54% of young people had already tried alcohol before the age of 16, and also the 3rd National Survey on the Use of Drugs by the Brazilian Population, which establishes as median ages of beginning alcohol consumption, 15.7 and 17.1 years for men and women, respectively. Other research carried out at a university in different regions of Brazil, such as Minas Gerais, Distrito Federal, Rio Grande do Norte and Rio Grande do Sul, also showed an increasingly early consumption.[1,20,21,22,23,24,25]

Life expectancy, financial independence, the search for identity and acceptance in social groups are factors inherent to the maturation process that, in the course of youth, contribute to this population becoming vulnerable to the use of drugs, both legal and illegal.[26] However, the earlier the exposure, the greater the chances of abuse in the future, predisposing to health damage, social, cultural and economic problems.[20,21]

According to the data collected from the young people in this study, it was possible to identify that the reasons why they start drinking alcohol involve the encouragement of friends and curiosity. Most of the time, they are looking to define their identity and obtain social acceptance in a certain group.[27] It is noteworthy that most drink alcohol to accompany friends and parties. This may be a result of getting into university, a time when young people acquire greater freedom and autonomy. Studies carried out in Brazil and in other countries involving university students corroborate these statements.[28,29,30,31,32]

Alcohol is the legal drug most used by university students; it is drunk on a regular basis for fun and entertainment. Associated with this, excessive consumption is favorable due to the large number of parties and the easy access to alcohol. Other factors, such as consumption after tests, in an attempt to relieve tension, contribute to the use of alcohol as a way to unwind, escape from problems and responsibilities acquired during this period.[2,10,33]

In this study, it was found that most young people use alcohol two to four times a month or less. It was possible to observe that, during the degree course, there was a change in this habit, that is, an increase in consumption over the years. This is a worrying fact, as it can bring several consequences and damage to health, risky sexual exposure and car accidents, in addition to the increase in violence rates and worsening academic performance - consequently, abandonment of studies.[33] Increase in consumption of alcoholic beverages over the years of the course in the health field among students from other universities was also observed by Gomes et al. (2018) and Tostes et al. (2016).[21,34] A survey carried out in northeastern Brazil, also in courses in this area, identified the initial university periods as the most prevalent.[25]

As for the damage caused, it was observed that some young people feel remorse or guilt after drinking. It is important to highlight that part of the respondents reported not being able to remember what happened after drinking alcohol, a common practice among students, as shown by other studies.[20,23]

As for the level of risk, most of the participants in the present study were classified in the low-risk group, as in other studies[23,35] - however, more information on alcohol consumption is necessary for this population. An important portion was classified as at risk and high risk, representing a warning for future health problems, requiring, therefore, guidelines and actions that establish consumption reduction goals. Similar results have been obtained in other studies.[25,36]

One of the limitations of the present study is its cross-sectional design, since, although it is possible to examine the association between alcohol consumption and related factors, causal inferences cannot be made; longitudinal studies and new evaluations can better clarify this relationship. In addition, the analyzes were performed based on self-reported data, which can lead to underestimation and underreporting. On the other hand, self-filling instruments, used to assess the use of alcohol and other drugs, have been validated and applied in different groups and are considered reliable and valid.[6,17,37]

Another limitation is the selection of only one course, which makes it difficult to generalize the results of this study to the rest of the universities. It is important to expand research on the risks of alcohol consumption among university students from other courses in the health area, seeking, with the data obtained, strategies that reinforce this aspect in the training of future professionals.

The data from this research signaled that the fact of being a university student in the health area and knowing the risks associated with alcohol consumption does not favor the adoption of a healthy lifestyle. Students drink alcohol in a variety of environments, such as parties, sporting and cultural events, individually or influenced by colleagues. It is evident that such conduct is not exclusively influenced by knowledge. Young people were not aware of the effects that prolonged alcohol use can have. Since they will be health professionals, they were expected to make more conscious use, considering that in the future they will be responsible for health promotion and prevention, in addition to serving as an example to society.

The results of the present study and several others cited are consensual regarding the finding that universities need to reevaluate problems with alcohol consumption among students. It is noted the importance of prevention programs aimed at university students, taking into account the factors described and the evidenced problems associated with the use of alcohol. Projects and initiatives with cooperation between the community and the university population can focus on beliefs and expectations about alcohol, seeking measures to define and implement prevention strategies in order to reduce the risks arising from this practice. Health promotion actions should prioritize groups of students at risk, with individual counseling.

Considering that these students are future health professionals and role models for citizens, it is essential to know their alcohol consumption profile and the factors associated with it, in order to develop educational and alcoholism prevention actions.

CONCLUSION

The present study shows the prevalence of alcohol consumption among students of a health course. In addition, it reveals that, after getting into university, they show a change in habits in relation to alcoholic beverages, showing the increase in consumption.

As in other studies, the early onset of this habit is evident, prior to the arrival to higher education, linked to parties and the company of friends. The analyzed population has a low risk and vulnerability to alcohol consumption. However, although the results found are favorable, the need for preventative actions is recognized for the guidance regarding the damage caused by the consumption of alcoholic beverages. Health promotion strategies and means of treating the problems associated with alcohol consumption need to be adequately targeted to vulnerable groups that are at greater risk.

The future professional and social role of these students shows that there is a need for changes in university education so that they can act in this area. The development of educational programs and regulatory policies on the supply and access to alcohol is necessary.

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