

Alcohol consumption and binge drinking among university students in a city in the state of Rondônia

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ABSTRACT

Objective: to verify the prevalence and pattern of alcohol consumption among the academics of a higher education institution located in the interior of the state of Rondônia. **Methods:** cross-sectional and observational study with all students enrolled in the institution in 2017. Were used the Alcohol, Smoking and Substance Involvement Screening Test to identify alcohol consumption and other classes of psychoactive substances. To characterize binge drinking was adopted the definition by the National Institute on Alcohol and Alcoholism and, and exclusion criteria was defined the questionnaire was not filled in completely and the request of the participant. The data were analyzed with SPSS program 17. The univariate analysis was used to describe quantitative variables and the bivariate analysis to verify the association between the use of alcoholic beverages and the independent variables (sex, age) the level of significance was set at 5%. **Results:** 518 subjects participated in the study, with a mean age of 23.1 years, of which 355 (68.5%) were female and 163 (31.5%) were male. Among these, 385 (74.3%) stated that they consume alcoholic beverages, 282 (54.4%) started consuming less than 18 years and 239 (57%) reported practicing BD. Among BD practitioners, 48.9% do so at least once a month.

Conclusion: there was a high prevalence of alcohol consumption and binge drinking among university students, which predisposes these individuals to physical, emotional, and social problems. Such findings should serve as a warning for the need for public policies aimed at preventing alcohol consumption that begins during adolescence.

Keywords: Ethanol, Alcoholism, Alcoholic intoxication, Binge drinking.

INTRODUCTION

Worldwide, more than two billion people are regular users of alcohol, which makes it the most widely consumed recreational drug, as it is a legal substance, and its consumption has been "legalized" by social practices and cultural norms for hundreds of years¹. Today's society lives, works, studies, and has fun in alcoholic environments that contribute to the normalization of customs and significantly influence consumption patterns².

Studies have shown that the beginning of alcohol consumption has occurred in the second decade of life³⁻⁵, generally meaning for adolescents a rite of passage that will trigger their maturation process, but with great repercussions in future life, as this age group is a window of vulnerability in the context of substance abuse⁶.

According to the World Health Organization (WHO), excessive alcohol consumption is a significant variable for the worsening of several diseases and is categorized as the third main risk factor for premature deaths of more than 3 million individuals each year, corresponding to 5.9 % of deaths in general, in addition to millions of other disabilities and increasing exposure to risky behaviors (unprotected sexual activity, drunk driving, violence and criminality that lead to social, economic and moral maladjustments^{7,8}.

In recent decades, a new type of alcohol consumption has been observed among adolescents and young adults, the so-called "binge drinking" (BD), which is characterized by the ingestion of large amounts of alcoholic beverages on the same occasion. The practice of BD corresponds to four or more doses for women and five or more doses for men, which, in ter-

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ms of blood alcohol concentration, is equivalent to approximately 80 mg/dl (0.08%) in an adult⁹. This practice is considered a risky behavior due to the possibility of causing anatomical and functional changes in the central nervous system, especially in the prefrontal region and in the limbic system, culminating in negative repercussions on memory, cognitive and executive functions, in addition to impairing the individual inhibitory control¹⁰⁻¹³.

In addition to the serious changes that can be found in the central nervous system, the consumption of large amounts of alcohol can cause repercussions throughout the body, in the medium and long term, increasing the possibility of cardiocirculatory events (high blood pressure, stroke, myocardial infarction, arrhythmias), gastric (ulcers, pancreatitis) and compromised immune system, among others¹⁴⁻¹⁷.

The objective of the present study was to verify the prevalence of alcohol consumption and the practice of BD among university students of a higher education institution located in the countryside of the state of Rondônia.

METHODS

This is a cross-sectional, observational study with a quantitative approach, which was carried out with university students from a private educational institution located in the city of Ariquemes, in the state of Rondônia. To this end, all 685 students enrolled in the different courses were invited to participate in 2017, who were asked to sign the Free and Informed Consent Form. The research instrument indicated for the study was made available online to all participants, which is the Alcohol, Smoking and Substance Involvement Screening

Test (ASSIST), a questionnaire prepared by the WHO that contains questions related to alcohol consumption, alcohol and eight other classes of psychoactive substances. For the characterization of BD, the following definition from the National Institute on Alcohol and Alcoholism was adopted: ingestion that raises the concentration of alcohol in the blood to 0.08 d/dL, which is equivalent to four or more doses for women and five or more doses for men, in a period of two hours^{14,18}. Exclusion criteria were the non-completion of the questionnaire and the participant's request.

The study was approved by the Research Ethics Committee of the Faculty of Education and Environment - FAEMA, (CAAE 64340517.9.0000.5601).

Data were analyzed using the Statistical Package for the Social Science (SPSS17) program. Univariate analysis was performed to describe the quantitative variables and bivariate analysis was carried out to verify the association between the use of alcoholic beverages and the independent variables (gender, age), adopting a significance level of 5%.

RESULTS

Among the 685 students enrolled in 2017, after some refusals and applying the exclusion criteria, 518 individuals remained in the study, with a mean age of 23.1 years, of which 355 (68.5%) were female and 163 (31.5%) were male. Among these 518, 385 (74.3%) stated that they consume alcoholic beverages, 282 (54.4%) started drinking under the age of 18 and 239 (57%) reported practicing BD. Table 1 shows the distribution of these students according to sex and age group.

Table 1

Characterization of the sample regarding the practice of binge drinking according to sex and age

	Binge drinking				
variables	yes		no		p value
	(n)	(%)	(n)	(%)	
sex					
feminine	165	69,0	190	68,1	0,819
masculine	74	31,0	89	31,9	
age (year)					
18 - 23	54	32,3	113	67,7	0,769
24 - 29	11	28,2	28	71,8	0,728
30 - 35	7	33,3	14	66,6	0,822
>35	2	16,6	10	83,3	0,292

Table 2 shows the frequency of consumption of different psychoactive substances among university students.

Table 2

Distribution of consumption of psychoactive substances among university students

	n	%
Alcohol	385	74,3
Psychotropics	135	25,9
Tobacco	101	19,5
Illicit drugs	85	16,4

Table 3 shows the frequencies of BD practice.

Table 3

Distribution of frequencies of binge drinking practice

BD	n	%
< 1/month	122	51,0
1/month	78	32,6
1/week	35	14,6
Almost daily	4	1,7
Total	239	100,0

DISCUSSION

The consumption of alcoholic beverages and psychoactive substances is a growing problem in the world population, with a high prevalence, especially among adolescents and young adults. This behavior, especially in the academic context, has become a worrying public health is-

sue due to the tragic consequences in the short, medium, and long term¹⁹⁻²¹.

Although in Brazil the sale of alcoholic beverages is prohibited to persons under 18 years of age, the consumption of alcohol in this age group is a common practice, following what seems to be a global trend²²⁻²⁶, because in addition to the high prevalence (74.3%) verified among university students, 282 (54.4%) students stated that they had their first contact with alcoholic beverages before reaching 18 years of age. This early behavior can be considered a predisposing factor for chronic consumption throughout life, in addition to the development of physical and emotional problems in adulthood, because in this age group, due to the great sensitivity of the still developing central nervous system, the damage they can be large and definitive^{5,27-29}.

Among the reasons suggested for this high prevalence are the search for new sensations, the desire to be socially accepted, curiosity, the influence of friends, low cost, ease of access and the massification of advertising campaigns that, paradoxically, to reduce consumption of alcoholic beverages, end up exposing individuals to the most different products³⁰⁻³². Among the 385 students who reported consuming alcoholic beverages, the study identified 239 (62%) BD practitioners. This result is in line with the high prevalence observed by other authors in studies carried out in Japan³³, the United States^{14,34}, Australia³⁵, Thailand³⁶ and in several European countries^{25,37}.

The literature has presented studies that seek to identify characteristics of the profile of practitioners of and, in this sense, it is observed that they

are uninhibited, impulsive individuals, looking for new challenges and emotions, with little capacity for inhibitory control and low perception of risks and that they end up underestimating the consequences of their attitudes^{13,14,19,26,29,38}. Changes in current social roles, such as living alone or away from the family, living independently, attending higher education, not working full-time and later marriage, can also contribute to the practice of DB²³.

When analyzing the frequency with which they practice BD, it was found that 122 (51%) do it less than once a month and 39 (16.3%) at least once a week, which makes this reality very worrying due to the possibilities of negative physical, emotional, and social consequences for these individuals and for the whole society that also suffers the repercussions caused by the high consumption of alcoholic beverages^{13,17,24}.

Individuals who practice BD have low academic performance, predisposition to negative emotions, stress, anxiety, poor sleep quality, difficulties in participating in sociocultural activities, becoming dependent on alcohol and consuming other types of illicit substances, in addition to being more likely to involvement in legal issues, which ends up greatly reducing their quality of life^{14,19,26,39,40}.

In the population sample studied, it was observed that the practice of DB occurred more among women (69%), which has also been verified in other national⁴¹⁻⁴³ and international^{14,26,29} studies. Therefore, the greater severity of the problem should be highlighted, as women, due to physiological and metabolic conditions, are more vulnerable to the effects of alcohol, suffering more physical and emotional consequences^{21,29,44}.

Determining the frequency of excessive alcohol consumption is important at individual and collective levels, as this practice is associated with damage to health and well-being, as well as the use of other psychoactive substances. In addition, excessive alcohol consumption can lead to dependence, with physical, emotional, and behavioral problems that are reflected in serious social consequences.

CONCLUSION

Some limitations should be pointed out, such as the possibility of underestimated respon-

ses, even considering the voluntary participation of university students and guaranteeing the confidentiality of information. In addition, the study covers a small proportion of students limited to a region, not being representative of the universe of Brazilian university students. However, their results allow us to conclude that there are patterns of consumption of alcoholic beverages and psychoactive substances among these university students that can trigger problems of different magnitudes. The contribution of the study to the dissemination and reflection on this theme should also be highlighted, confirming the importance of epidemiological studies in the generation of knowledge⁴⁵ that can support health education, promotion, and prevention strategies, enabling the establishment of public policies aimed at protecting the disease. physical and emotional health of the community.

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