Original article

Hazardous use of alcohol among undergraduate students at a public university

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Abstract

Background: The potentially harmful consequences of alcohol use among undergraduates have become a growing concern in recent years. **Objectives:** This study aimed to determine the prevalence of hazardous use of alcohol in this population and to identify demographic and psychosocial factors associated with this pattern of consumption. **Methods:** This was a cross-sectional study using an anonymous and self-completed questionnaire in the classroom. The questionnaire was administered to 1,290 enrolled male and female students, which comprised a proportional sample of the main areas of knowledge at University of Campinas. The questionnaire produced sociodemographic and psychosocial profiles and the Alcohol Use Disorders Identification Test was used to detect hazardous use of alcohol. **Results:** The prevalence of hazardous use of alcohol among the study participants was 24%. Male gender, subjective perceived social support in case of difficulties, being sexually active, not dating, having smoked tobacco cigarettes or marijuana, and having used other illicit psychoactive substances were associated with hazardous use of alcohol. **Discussion:** Variables related to gender, sexuality, affective partnerships, and consumption of other psychoactive substances were associated with hazardous use of alcohol, which was identified in a quarter of the evaluated students, and indicate the need for strategies to prevent and to treat problems.

Santos Jr. A et al. / Arch Clin Psychiatry. 2014;41(6):150-5

Keywords: Alcohol-related disorders, risk-taking, dangerous behavior, universities, education, higher.

Introduction

Alcohol use among young people, particularly college students, has become a growing concern in recent decades in Brazil and elsewhere[1,2]. In a period characterized by multiple transitions, college students are more vulnerable to the initiation and maintenance of alcohol use and the use of other drugs[3,4]. Furthermore, alcohol is the most commonly used substance for these students, who underestimate its negative effects; thus, they are more exposed to risky situations and health hazards[5]. Some of the harmful consequences of hazardous use of alcohol in this population include: learning difficulties and academic problems with higher reprobation rates, such as reduced time dedicated to studies, non-attendance in classes, and poor academic performance; risky behaviors, such as increased frequency of unprotected sexual intercourse with different partners, sexual abuse, driving while intoxicated, traffic accidents, being intoxicated in public, fights, legal problems, and violent deaths; and future problems with psychoactive substances, including alcohol dependence and use of other psychoactive substances[2-8].

International studies[1,3,9] in different sociocultural contexts that evaluated the consumption of alcohol among university students have shown prevalence rate for hazardous use (Alcohol Use Disorder Identification Test [AUDIT] ≥ 8) ranging from 9% to 63%. Brazilian studies have also showed a significant cumulative lifetime use of alcohol[6,7,10,11]. In a conglomerate sample of 9,974 university students from the state of São Paulo, 62.1% reported use of alcohol in the preceding month[11].

Although international studies have addressed the possible associated factors for misuse of alcohol among university students[1,3], there are few Brazilian studies focused on this population[2,5,6,8,10-12], and most of them specifically evaluated health sciences students[7,13-15]. Considering the relevance of alcohol consumption and its potential consequences for university students, the objectives of this study were to determine the prevalence of hazardous use of alcohol in this population and to identify demographic and psychosocial factors associated with this pattern of alcohol consumption.

Methods

The study took place at the University of Campinas (Unicamp), a public Brazilian institution with about 42,000 students, of whom about 18,000 are undergraduate students[16].

This is a quantitative, cross-sectional study, which assessed regularly enrolled undergraduate students in 2005. In December 2004, a pilot study was performed to evaluate the acceptability and understandability of a questionnaire and to define the sample size of the main study. This pilot study included 60 undergraduate students from Medicine and Speech Therapy courses.

The total sample covered by the database was planned according to power and sample size calculations following the pilot study, which determined a prevalence of around 30% for hazardous use of alcohol, with a significance level of 1% (alpha = 0.01) and sampling error of d = 0.035. Therefore, the minimum sample size that should be extracted from the total of 14,640 regular students registered at Unicamp in 2005 was estimated to be 1,138 subjects. Data collection was performed between October 2005 and November 2006, which resulted in a total of 1,306 completed questionnaires.

Inclusion criteria for participants of the main study were: undergraduate students of both sexes, regularly registered at courses from two Unicamp campuses in the state of São Paulo, Brazil, and who had read, understood, agreed, and signed the free and informed consent form.

Sample selection was based on proportional clusters of students at each course. The cluster-sampling method assumes that individuals in the population form natural groupings[17], *e.g.*, that students in a class are proportional to the total population, in this case, the total number of students regularly enrolled at the university. As absences from some classes were quite common, the study only considered disciplines with at least 60% of registered students inside the classroom at the time of the application of the questionnaire. The Academic Board of Unicamp provided technical assistance for determining the sample, according to the established criteria of the disciplines with the highest attendance, and their representation of the overall student population in these disciplines[18].

The complete questionnaire for the survey investigated several aspects of the students' lives and identities and is described elsewhere[18]. The questionnaire took an average of one hour to complete. Questions asked about students' sociodemographic, housing conditions, life situation, quality of life, personal and social identities, ethnicity, religion, physical and mental health, consumption of alcohol and other psychoactive substances, risk behaviors, and sexuality.

The AUDIT was used to assess hazardous use of alcohol. Students were also questioned on whether they had smoked tobacco cigarettes in the previous 12 months or consumed illicit psychoactive substances in the previous year or at least once in their lives. The questions were adapted from a questionnaire elaborated by the Brazilian Information Center on Psychotropic Drugs (Cebrid)[19].

The self-completed questionnaires were analyzed with SPSS software (version 11.5; SPSS Inc, Chicago, IL, USA). An initial descriptive analysis of distribution of frequencies for each variable category was performed, followed by more complex statistical procedures, which consisted of an analysis of association between variables using chi-square tests, followed by univariate and multivariate logistic regression analyses.

Independent variables considered for the univariate logistic regression analysis were those variables from the questionnaire that had a reasonable number of answered questions and with statistically significant association (chi-square test) with the variable "possible hazardous use of alcohol" (AUDIT ≥ 8, "yes" versus "no"), which was considered the dependent variable. The statistically significant independent variables were sociodemographic information, housing conditions, student life situation, religion, consumption of other psychoactive substances, and sexuality. These were considered as independent variables for the multivariate logistic regression, which adopted the stepwise procedure for selection of variables. Reference categories for each variable were always those with the lowest number of individuals with possible hazardous use of alcohol.

SAS for Windows software (version 8.02; SAS Institute Inc, Cary, NC, USA) was used to obtain both univariate and multivariate analyses. The level of significance of all analyses was 5%, i.e., p-value ≤ 0.05.

The project was approved by the Committee of Ethics in Research of the Faculty of Medical Sciences of Unicamp (Report No. 331/2004). All students who agreed to participate in the study signed a written informed consent.

Results

The demographic profile of the students was: 56% female; 92% single; 82% aged between 17 and 23 years old (48% aged 17 to 20 years old and 34% aged 21 to 23 years old); and 75% lived in Campinas during the week, 56% lived in lodgings or shared accommodation, and 33% lived with their parents. The students' socioeconomic status was average for 39%, low for 32%, and high for 29%. Half of their fathers and mothers had a university degree. Most students attended elementary (61%) and high (67%) schools at private institutions. In the color category, 77% reported being white, 13% brown or black, and 9% yellow. In Brazil, the official nomenclature adopted by the Brazilian Institute of Geography and Statistics uses skin color categories rather than ethnicities because of the intense miscegenation of the Brazilian population. For students' religious creed, 47% were Catholic, 15% were Spiritists, 14% were Evangelicals, and 24% had no religion. When facing difficulties, most students (80%) reported having support from someone inside the university. Students with social support received support from friends (90%) and/or partners (18%), with more than one answer allowed for this category.

The overall prevalence of hazardous use of alcohol was 24%. There was a statistically significant gender difference in the rates of hazardous use: 35% for men and 15% for women (p = 0.000).

Table 1 shows the descriptive analysis regarding the hazardous use of alcohol using the variables selected for the univariate and multivariate analyses because they had statistically significant p-values.

Table 1. Descriptive analysis of variables selected for univariate and multivariate analyses, regarding hazardous use of alcohol (positive AUDIT ≥ 8)

Variables	Negative AUDIT	Positive AUDIT	Total	P-values
Gender				
Male	199 (35.1%)	368 (64.9%)	567	0.000
Female	620 (85.6%)	104 (14.4%)	724	
Living situation With parents	351 (83.8%)	68 (16.2%)	419	0.000
Shared accommodation	492 (69.6%)	215 (30.4%)	707	
With partner	142 (88.2%)	19 (11.8%)	161	
Coefficient of academic performance				
≥ 0.71	615 (81.1%)	143 (18.9%)	758	0.000
< 0.71	297 (66.7%)	148 (33.3%)	445	
Having support for difficulties				
No	223 (84.2%)	42 (15.8%)	265	0.001
Yes	764 (74.5%)	261 (25.5%)	1,025	
Religion				
No	227 (68.6%)	104 (31.4%)	331	0.000
Yes	756 (79.4%)	196 (20.6%)	952	
Kind of religion				
Catholic	456 (75.4%)	149 (24.6%)	605	0.000
Evangelical	158 (90.8%)	16 (9.2%)	174	
Spiritist	103 (81.7%)	23 (18.3%)	126	
Others	47 (77%)	14 (23%)	61	
No religion	215 (69.1%)	96 (30.9%)	311	
Religion important to personal identity				
No	275 (70.7%)	114 (29.3%)	389	0.000
Yes	502 (84.7%)	91 (15.3%)	593	
I do not have religion	193 (67.7%)	92 (32.3%)	285	
Virgin				
No	652 (70.9%)	267 (29.1%)	919	0.000
Yes	275 (92.3%)	23 (7.7%)	298	
Dating				
No	431 (71.4%)	173 (28.6%)	604	0.000
Yes	465 (78.9%)	124 (21.1%)	589	
I am married	84 (95.5%)	4 (4.5%)	88	
Active sexual life				
No	451 (84.1%)	85 (15.9%)	536	0.000
Yes	520 (70.8%)	214 (29.2%)	734	
Smoked tobacco cigarettes in the last 12 months				
No	872 (83.1%)	177 (16.9%)	1,049	0.000
Yes	111 (47%)	125 (53%)	236	
Used illicit psychoactive substances in the last 12 months				
No	859 (85.9%)	141 (14.1%)	1,000	0.000
Yes	89 (36.9%)	152 (63.1%)	241	
Used illicit psychoactive substances at least once				
No	750 (88.8%)	95 (11.2%)	845	0.000
Yes	215 (51.3%)	204 (48.7%)	419	

Table 2 shows the variables associated with hazardous use of alcohol in the univariate analysis. Variables with statistically significant results (p-value ≤ 0.05) in the following categories were: male gender (odds ratio [OR] = 3.2, 95% confidence interval [CI] = 2.5-4.2); living in shared accommodation compared with living with parents (OR = 2.3, 95% CI = 1.7-3.1); lesser coefficients of academic performance (OR = 2.1, 95% CI = 1.6-2.8); receiving support from someone inside the university for difficulties (OR = 1.8, 95% CI = 1.3-2.6); not religious (OR = 1.8, 95% CI = 1.3-2.3); type of religion, where the OR was compared to Evangelicals: Catholic (OR = 3.2 95% CI = 1.9-5.6), Spiritist (OR = 2.2, 95% CI = 1.1-4.4), no specified religion (OR = 4.4, 95% CI = 2.5-7.8), other religions (OR = 2.9, 95% CI = 1.3-6.5); not considering religion important to personal identity (OR = 2.3, 95% CI = 1.7-3.1), or those who stated not having religion compared with those who consider religion important to their personal identity (OR = 2.6, 95% CI = 1.9-3.7); not being a virgin (OR = 4.9, 95% CI = 3.1-7.7); not dating compared with being married (OR = 8.4, 95% CI = 3.0-23.3); dating compared with being married (OR = 5.6, 95% CI = 2.0-15.6); having an active sexual life (OR = 2.2, 95% CI = 1.6-2.9); having smoked tobacco cigarettes in the last 12 months (OR = 5.5, 95% CI = 4.1-7.5); having used illicit psychoactive substances in the last 12 months (OR = 10.4, 95% CI = 7.6-14.3); and having used illicit psychoactive substances at least once (OR = 7.5, 95% CI = 5.6-10).

Table 3 shows the variables associated with hazardous use of alcohol in the univariate analysis. The variables with statistically significant association with possible hazardous use of alcohol were later considered for the multivariate logistic regression. Table 3 presents the variables associated with hazardous use of alcohol in the multivariate analysis, which are: male sex (OR = 2.6, 95% CI = 1.8-3.7); living in shared accommodation instead of living with parents (OR = 1.6, 95% CI = 1.1-2.3); having support from someone inside the university for difficulties (OR = 1.7, 95% CI = 1.0-2.7); not being a

virgin (OR = 1.9, 95% CI = 1.0-3.5); not dating when compared to being married (OR = 5.9, 95% CI = 1.3-26.4); having an active sexual life (OR = 2.0, 95% CI = 1.3-3.3); having smoked tobacco cigarettes in the last 12 months (OR = 1.7, 95% CI = 1.1-2.6); having used illicit psychoactive substances in the last 12 months (OR = 3.7, 95% CI = 2.2-6.2); and having used illicit psychoactive substances at least once (OR = 2.3, 95% CI = 1.4-3.7).

Reference categories for each variable are indicated by the bold font in tables 2 and 3, i.e., those with the lowest number of individuals with possible hazardous use of alcohol.

Discussion

This study gathered data about many variables that were possibly related to a pattern of hazardous use of alcoholic beverages, which was measured by an established and validated instrument in a representative sample of undergraduate students at a public university.

According to a Brazilian nationwide survey in the 27 Brazilian state capitals, with a sample of 12,721 college students, 24.3% (± 1.6) of the 18-24-year-old participants had a potential hazardous pattern of alcohol consumption. Sixty-four percent of the participants in this age group reported alcohol use in the last 30 days[2]. In another study, which focused on patterns of alcohol use among freshman students from seven campuses of São Paulo State University (Unesp), from the 4,100 responders, 1,057 (25.8%) were identified as at-risk drinkers[12]. Among a sample of 474 health college students, Nunes *et al*. found that the prevalence of binge drinking alcoholic beverages was 15.6%[14]. In the present study, the overall prevalence of hazardous use of alcohol was 24%. This rate is within the range of variation found in international[8,9] and in Brazilian[7,13] studies of alcohol use among college students that used the same instrument and cutoff point.

Table 2. Results of analyses of univariate logistic regression for hazardous use of alcohol*

Variables	Estimated parameter	Standard error	P-value	Odds ratio	95% CI
Gender					
Male X **female**	1.1705	0.1377	< 0.0001	3.224	2.461; 4.223
Living situation					
Shared accommodation X **with** parents	0.8134	0.1557	< 0.0001	2.256	1.662; 3.061
Coefficient of academic performance					
< 0.71 X **≥ 0.71**	0.7623	0.1369	< 0.0001	2.143	1.639; 2.803
Having support for difficulties					
Yes X **All other variables**	0.5955	0.1829	0.0011	1.814	1.268; 2.596
Religion					
No X **Yes**	0.5694	0.1430	< 0.0001	1.767	1.335; 2.339
Kind of religion					
Catholic X **Evangelical**	1.1710	0.2788	< 0.0001	3.225	1.868; 5.570
Spiritist X **Evangelical**	0.7903	0,3493	0.0237	2.204	1.112; 4.370
No specified religion X **Evangelical**	1.4832	0.2896	< 0.0001	4.407	2.498; 7.774
Other religions X **Evangelical**	1.0784	0.4019	0.0073	2.940	1.337; 6.463
Religion important to personal identity					
No x **Yes**	0.8272	0.1593	< 0.0001	2.287	1.673; 3.125
I do not have religion X **Yes**	0.9668	0.1704	< 0.0001	2.630	1.883; 3.672
Virgin					
No x **Yes**	1.5885	0.2289	< 0.0001	4.896	3.126; 7.668
Dating					
No X **I am married**	2.1315	0.5196	< 0.0001	8.428	3.044; 23.333
Yes X **I am married**	1.7226	0.5216	0.0010	5.599	2.014; 15.563
Active sexual life					
Yes X **No**	0.7810	0.1435	< 0.0001	2.184	1.648; 2.892
Smoked tobacco cigarettes in the last 12 months					
Yes X **No**	1.7134	0.1543	< 0.0001	5.548	4.100; 7.507
Used illicit psychoactive substances in the last 12 months					
Yes X **No**	2.3420	0.1615	< 0.0001	10.402	7.580; 14.274
Used illicit psychoactive substances at least once					
Yes X No	2.0136	0.1463	< 0.0001	7.490	5.623; 9.978

* Reference categories for each variable are indicated in bold font, i.e., those with the lowest number of individuals with possible hazardous use of alcohol.

Table 3. Results of analyses of multivariate logistic regression for hazardous use of alcohol*

Variables	Estimated parameter	Standard error	P-value	Odds ratio	95% CI
Positive AUDIT = 259 X Negative Audit = 792					
Intercept	-5.4868	0.8209	< 0.0001	---	---
Gender Male X **female**	0.9528	0.1845	< 0.0001	2.593	1.806; 3.723
Living situation Shared accommodation X **with** parents	0.4542	0.2008	0.0237	1.575	1.063; 2.334
Having support for difficulties Yes X **All other variables**	0.5096	0.2466	0.0388	1.665	1.027; 2.699
Virgin No x **Yes**	0.6402	0.3194	0.0451	1.897	1.014; 3.548
Dating No X **I am married**	1.7742	0.7648	0.0203	5.896	1.317; 26.396
Dating Yes X **I am married**	0.9240	0.7503	0.2181	2.519	0.579; 10.963
Active sexual life Yes X **No**	0.7157	0.2473	0.0038	2.046	1.260; 3.321
Smoked tobacco cigarettes in the last 12 months Yes X **No**	0.5333	0.2226	0.0166	1.705	1.102; 2.637
Used illicit psychoactive substances in the last 12 months Yes X **No**	1.3200	0.2609	< 0.0001	3.743	2.245; 6.242
Used illicit psychoactive substances at least once Yes X **No**	0.8231	0.2431	0.0007	2.278	1.414; 3.668

Accuracy of the model – statistics c = 0.845.

* Reference categories for each variable are indicated in bold font, i.e., those with the lowest number of individuals with possible hazardous use of alcohol.

There is some stability in the verified rates of alcohol consumption among university students compared with those found in the same age group in the whole Brazilian population. The most comprehensive study aimed at the prevalence of psychotropic substances in Brazil was performed by Cebrid in 2005[20]. This household survey investigated alcohol consumption patterns in more than 100 cities across the country and found that 19.2% of the 18-24-year-old participants were dependent on alcohol[20]. Twenty-two percent of the 18-24-year-old respondents reported frequent consumption of alcoholic beverages in the past 12 months and 4% reported very frequent consumption[20]. Fourteen percent were frequent drinkers and 12% were heavy and frequent drinkers[20].

Variables related to the absence of religion were associated with hazardous use of alcohol in the chi-square and in the univariate analyses. This fact was already noted in the literature[5,14,21] and, conversely, religiosity has been indicated as a protective factor against the abuse of alcohol and other drugs. Moreover, various dimensions of religiosity are identified as relevant factors in the modulation of use and abuse of alcohol and other drugs by several population groups, particularly adolescents and young adults[22,23]. However, probably because of confounding variables related to the use of psychoactive substances and to sexual life, the multivariate model of this study does not permit the assertion of causal relationships between alcohol use and religiosity.

Similarly, although the present study does not establish causal relations, the association between the variables "worse academic performance", represented by the variable coefficient for academic performance (< 0.71) in table 2, and "living in shared accommodation near the university campus" with hazardous use of alcohol may indicate combined situations that involve aspects such as certain types of sociability, failure to achieve academic goals, and hazardous alcohol consumption, as already discussed in other studies[15]. Nemer *et al.* found that students with heavy alcohol drinking patterns presented a 9.2 times higher risk for being late in the course[8].

The multivariate logistic regression analysis showed that variables related to gender, sexuality (not being a virgin and having an active sexual life), affective partnerships, and consumption of other psychoactive substances proved to be markedly associated with hazardous use of alcohol.

Male college students consumed more alcohol than their female counterparts did, which is consistent with reports from both Brazilian and international literature[1,3,5,8]. In the 1st Nationwide Survey on the Use of Alcohol, Tobacco, and Other Drugs among College Students in the 27 Brazilian State Capitals, National College Study, which assessed information using the Alcohol, Smoking and Substance Involvement Screening Test 29.2% of male college students and 16.2% of female college students reported moderate or high risk of alcohol use[5].

Living in shared accommodation was associated with higher chances of having a potential hazardous use of alcohol compared to living with parents (OR = 1.6, 95% CI = 1.1-2.3). This is different from the results of Kerr-Corrêa *et al.*, performed in a smaller city in the São Paulo state[15]. Having social support from someone inside university for difficulties has also been associated with hazardous use of alcohol in the multivariate analysis. This finding may indicate a typical pattern for the behavior of students who are more sociable, i.e., who are not isolated and can count on having support from their colleagues and friends. However, sociability itself probably is not a unique risk factor for hazardous use of alcohol. Almost one in every five students who stated that they had support from someone inside university noted that this support came from their boyfriend or girlfriend. Affective partnerships between couples are associated with lower hazardous use of alcohol and, the more stable the partnership is, the lower the frequency of positive AUDIT among the students, as shown by the lowest positive AUDIT findings among students who are married, followed by those who are dating.

Although affective relationships with partners are associated with a lower hazardous use of alcohol, the opposite was found regarding sexual activity. Students who are not a virgin and who have an active sexual life actually present with more hazardous use of alcohol. These findings suggest that the nature of sociability and relationship networks is more important in their associations with hazardous use of alcohol than having an active social life or not. Therefore, stimulating strategies within social networks are used, such as nominating a friend to be the driver when the group goes out to parties and bars or using breath analyzers as playful self-monitoring tools, instead of policing evaluations. These strategies might be presented and discussed in academic forums inside the university. Even though there are similar rates of hazardous use of alcohol among people

of the same age who are or are not at university, the university environment might favor more opportunities for debate about public strategies for intervention.

Importantly, hazardous use of alcohol is associated with consumption of other psychoactive substances. Smoking tobacco cigarettes in the last 12 months, using illicit psychoactive substances in the last 12 months and, independently, using illicit psychoactive substances at least once, were three independent factors associated with greater risk.

Heavy alcohol consumption among college students is associated with increased likelihood of use of illicit drugs. These students are approximately five times more likely to use marijuana and eight times as likely to use cocaine as their peers who engage in light drinking[24]. It is worrisome that alcohol intoxication increases the risk of individuals making ill-considered decisions about illicit drug taking, which thereby bias them towards engaging in polydrug use[25]. Recent national study showed that marijuana was the illicit drug most often used by Brazilian college students who reported drinking at least one alcoholic drink in the past 12 months and also over the last 30 days[26]. Another recent study, called The Second Brazilian Alcohol and Drugs Survey (BNADS II), pointed lifetime and last year prevalence rate of snorted cocaine was 3.9% and 1.7%, respectively. Cocaine addiction was identified in 41.4% between users in the prior year. The authors suggest that the country is amongst the nations with greatest annual consumption rates becoming one of the biggest consumer markets of cocaine worldwide and reinforces that prevention and treatment policies should take this into consideration and strengthen the focus on cocaine use in the country.

Importantly, despite the high rates of risky consumption of alcohol among university students, alcohol use is rarely indicated as a reason for seeking assistance from university support services[10,27]. It is even less frequently addressed when hazardous use of alcohol is associated with the consumption of other psychoactive substances. The possible hazards of alcohol consumption in this age group justify routine screening of this risky behavior and indicate the need for creation and optimization of strategies to address the problem in the Brazilian university context by aiming to prevent problems and to treat individuals who already engage in risky behavior[11,28]. Many undergraduates may benefit directly from these measures and after their graduation, they will have greater potential to act in their respective professional fields by promoting social measures regarding hazardous use of alcohol and other psychoactive substances among their peers.

One limitation that should be pointed out relates to the instrument used in the evaluation of risky drinking (AUDIT). Although the version of AUDIT validated in Brazil has a good sensitivity (91.8%), the specificity (62.3%) of the test is low[29]. Moreover, although AUDIT has recognized psychometric qualities and is one of the most widely used scales to evaluate alcohol abuse or dependence[21], there are still doubts about the optimal cutoff point, particularly in the evaluation of consumption among women[30]. Despite this limitation, this study contributes to the Brazilian national data collection on the hazardous use of alcohol and factors associated with this pattern of consumption that shall be considered as tools for preventive approaches.

The prevalence of hazardous use of alcohol found in a quarter of the evaluated college students represents a challenge to be faced, at different levels, by programs and initiatives targeting the health of this population. Gender, living in shared accommodation, with less stable affective relationships, not being a virgin, having an active sexual life, and concomitant use of tobacco and illicit psychoactive substances are factors related to hazardous use of alcohol in this study. Such information should be disseminated. The development of strategies for detection of individuals more likely to have hazardous use of alcohol and of situations that trigger this pattern of consumption may become a health priority in the establishment of secondary and even tertiary prevention measures.

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