STANDARD OF ALCOHOL USE AND ACADEMIC PERFORMANCE AMONG STUDENTS OF NURSING COURSE OF FEDERAL UNIVERSITY OF UBERLÂNDIA, MG, BRASIL

PADRÃO DE USO DE ÁLCOOL E O DESEMPENHO ACADÊMICO ENTRE ESTUDANTES DE ENFERMAGEM CURSO DE UNIVERSIDADE FEDERAL DE UBERLÂNDIA, MG, BRASIL

Marcelle Aparecida de BARROS JUNQUEIRA¹; Arthur Velloso ANTUNES²; Vanessa Cotian OLIVEIRA³

1. Nurse, PhD in Sciences, Assistant Professor of the Graduate Program in Nursing at the Federal University of Uberlandia, Uberlandia, MG, Brazil. marcebarros@yahoo.com.br; 2. Nurse, PhD in Fundamental Nursing, Associate Professor of the Graduate Program in Nursing at the Federal University of Uberlandia, Uberlandia, MG, Brazil; 3. Nurse, Program in Nursing at the Federal University of Uberlandia, Uberlandia, MG, Brazil.

ABSTRACT: This is a quantitative survey conducted with 101 students of Nursing, Federal University of Uberlândia. The objective was to evaluate the pattern of alcohol use among students and their impact on academic life. We used the Identification Test Problems Related to Alcohol (AUDIT) and a structured questionnaire on sociodemographic information, academic performance and attendance at parties, delays and sleep in classrooms. The results were mostly women (87.13%), unmarried (90.10%), Catholic (57.43%), 33.66% students have had failures in subjects, 83.17% students participating in or participated in some extracurricular activity, 45.55% students go once or less in parties, in one month, 87.13% said students sleeping in class the day after he attended a party; 82.18% tend to be late in class, having gone to a party the night before, 29.70% did not consume alcoholic beverages. Positive correlations were found statistically significant between the values of variables and frequency standard to parties and between standard and quantity of failures. With regard to sex, the positive correlation, statistically significant, the pattern indicates that male students have higher standard, while the students have the lowest standard. The results were statistically significant between the values of variables in class and sleeping late, this indicates that, as the values of the variables increase the values of another variable increases, too. It is concluded that there is need for educational programs aimed at prevention of alcoholism.

KEYWORDS: Students. Nursing. Alcohol. Consumption of alcoholic beverages.

INTRODUCTION

Accepted: 05/10/16

The definition of the drink considered "normal" or "social" and the drinking of "risk" or "abuse" through quantitative parameters (such as the type of beverage and number of drinks), and achieves qualitative parameters (such as the perceived losses, the desire to drink more, for example difficult to measure) (GIGLIOTTI; BESSA, 2004). Disorders related to alcohol and other drugs, currently they should not classify individuals as dependent and non-dependent. Therefore, any pattern of consumption can bring problems to the individual (LARANJEIRA, 2003).

The ICD-10 (International Classification of Diseases) ranks as alcohol intake of any kind of drink, low risk consumption term indicates that consumption is within the legal and medical boundaries, and it is unlikely that causes alcohol-related problems. Alcohol abuse is a general term for any level of risk, since the risk consumption to alcohol dependence (ORGANIZAÇÃO MUNDIAL DE SAÚDE (OMS)(OMS,1993).

Alcohol abuse can cause damage to health

without necessarily causing addiction. The ICD-10 introduced the term harmful use in the nomenclature, which is characterized by pattern of use that is already causing damage to health, either physical or mental point of view - a standard type in which the drinker is criticized by his half social, cultural or family by the way is consuming the alcoholic beverage (OMS, 1993).

In Brazil, the annual per capita consumption of alcohol, including unregistered consumption was estimated at 8.32 liters of pure alcohol per adult, amount well above the world average of 5.8 liters (OMS, 2004).

According to the OMS (2006), it is estimated that the alcohol accounts for 3.7% of all deaths in the world, and 14.4% of total morbidity load. On a worldwide scale, half the adult population consumes alcohol, and alcohol abstinence rates have been declining worldwide, and further reductions are estimated.

OMS pointed out that the use of alcohol was responsible for 1.3 % of the global burden in years of life lost to disability or death related to drug abuse. In males, the rate nearly doubles. If only

consider the inability for people 15-44 years of age, of both sexes, the rate of loss of years disability is 5.5%, shaping up as the second most important cause of loss. Also noted that hospital spending on the health problems caused by alcohol, exceed the revenues from taxes on it (OMS, 2001).

The life transition period for the university has been named as a vulnerable phase increased the use of alcohol and other drugs. Excessive alcohol consumption is a recurring pattern among college (COLARES; FRANÇA; GONZALEZ, 2009). To enter university many young adults experience new experiences as distance themselves from the family of origin for the first time, living with other students in republics (Ex .: republics) and experience the absence of adult supervision (WINDLE, 2003).

Such changes often lead to difficulties and stress, which together form the current socialization in universities through holidays, leaves more exposed to alcohol consumption (KERR - CORREA, 2002). These new experiences can enhance the use of alcohol and the risks associated with this consumption. Thus, university entry is configured as a critical period of increased vulnerability for the beginning and for the maintenance of alcohol and other drugs (KAPLAN; SADOCK, 1993).

Another issue raised is the social factor, since the use of alcohol is well accepted at parties and university amusement, coupled with peer pressure to consume and also the low price charged for these drinks, which in turn increases the risk that the young student drinking to intoxication (binge drinking) (WEITZMAN, 2003).

When they entered the university, the young spans a phase of his life, "ceases to be a teenager" and starts a new life, "more adult ". At that time, the socio-cultural context can function as a reinforcer for alcohol consumption, which is one aspect of the adult world. Thus, the "freshman" university is stimulated by the group, to drink. The drink takes on a character not only integration, but also socialization of students in the academic world, considered the young trainer to adulthood (DEA, 2004).

In addition, factors related to psychic dynamics can contribute decisively to the consumption of increasing doses of alcohol by young university students, for example, difficulties in relationships with parents and / or romantic relationships, financial difficulties etc. Thus, the abuse of alcohol among adolescents and young adults is a serious public health problem whose prevention, to be effective, must take into account

both socio-cultural factors and subjective aspects of the young (DEA, 2004).

Whereas these young people can become future professionals in the field of health and related, representing the renewal (or to and play) permanent care practices, increasingly it is necessary to continuously monitor their living habits, including the consumption of alcoholic beverages as it may be presumed that these habits will reflect to a greater or lesser extent, the type of assistance that will perform. In this context, it then becomes important to know the pattern of consumption and attitudes of these students, as they are responsible for educating the public on this issue, which is so important today.

Therefore, the aim of this study was to evaluate the pattern of alcohol use among students of the Nursing course at the Federal University of Uberlândia, and its consequences in academic life.

MATERIAL AND METHODS

This is a descriptive study with a quantitative approach. The study was conducted in Umuarama Campus classrooms of the Federal University of Uberlândia, and approved by the Research Ethics Committee of that university.

The subjects were students of Undergraduate Nursing at the Federal University of Uberlândia. This course is among the courses the area of knowledge of health sciences classified according to the National Council for Scientific and Technological Development (CNPq).

Thus, the study was conducted with students enrolled, with a total population of approximately 317 students. The inclusion criteria were: being regularly enrolled in the corresponding semester the period of data collection; accept part of (the application of the instrument) research. The sample consisted of 101 subjects, resulting number of sample calculation considering the confidence interval of 96 % (p> 0.04).

Data collection was made in almost all periods of the course, only students did not participate in the third and seventh periods because they were not taking classes at the time of data collection. In periods attended the sampling was done randomly by convenience, because they were able to participate in the classroom.

The data collection instrument built by us, inspired by the questionnaire prepared by Pillon and Corradi -Webster (2006), and consisted of the following: sociodemographic information - gender, age, marital status, religion, travel and academic period, on performance academics - number of

failures in disciplines and participation in projects extracurricluares internships and tutoring.

Was also applied the identification test of alcohol Identification of Problems Related to Alcohol- Test (AUDIT) questionnaire recommended by the World Health Organization for this purpose. It is a tool for easy application and cross-cultural validation, used in different services (BABOR, 2001). The total score ranges from zero to 40 points and according to him it is possible to identify four patterns of alcohol use or risk areas, i.e, low-risk use (0-7 points), use of risk (8-15 points), harmful use (16-19 points) and probable dependence (20 or more points).

RESULTS

Participated in this study, 101 students of the Nursing Course, 13 (12.90%) males and 88 (87.13%) were females, catholics (57.43%), and the period in which there was a greater participation was eighth degree (22.78%), sixth degree (13.86%), fifth degree (18.81%), fourth degree (11.88%), second degree (14.85%), first degree (17.82%).

In Table 1 are shown as frequencies and percentages of students' answers with respect to having had failures in subjects, or not, according to the gender and overall results.

Table 1. Distribution of frequencies and percentages of students' answers with respect to having had failures in subjects, or not, according to the gender and overall results.

REPROOFS	Male N	Male %	Female N	Female %	Total N	Total %
Yes	04	30,77	30	34,09	34	33,66
Not	09	69,23	57	64,77	66	65,35
Not answered	00	0,00	01	1,14	01	0,99
Total	13	100,00	88	100,00	101	100,00

The results in Table 1 show that 33.66 % of students were failing in any discipline, and the percentages were nearly identical when compared to the genre.

In Table 2 are shown as frequencies and percentages of students' responses to the question: "you sleep in class, on the day after attending a party?" according to the gender and overall results.

Table 2. Distribution of frequencies and percentages of students' responses to the question: "you sleep in class, on the day after attending a party?" according to the gender and overall results.

Sleeping in the classroom after party going	Male	Male	Female	Female	Total	Total
	N	%	N	%	N	%
Yes	10	76,92	78	88,64	88	87,13
Not	03	23,08	10	11,36	13	12,87
Total	13	100,00	88	100,00	101	100,00

The results in Table 2 show that most of the students interviewed (87.13 %) sleep in class after attending a party, this small difference in percentage when compared to females (88.64 %) and male (76.92 %).

Table 3 shows the frequencies and percentages of students' answers to the question are shown: "you usually arrive late in class, after going to a party the night before?" according to the gender and overall results.

Table 3. Distribution of frequencies and percentages of students' responses to the question: "do you usually arrive late in class, after going to a party the night before?" according to the gender and overall results

Arrives late to class, having gone for a party night back	Male N	Male %	Female N	Female %	Total N	Total %
Yes	11	84,62	72	81,81	83	82,18
Not	02	15,38	15	17,05	17	16,83
Not answered	00	0,00	01	1,14	01	0,99
Total	13	100,00	88	100,00	101	100,00

The results in Table 3 show that 82.18% of respondents students arrive late in class after going to a party the night before, with small percentage of difference when comparing the female (81.81%) and male (84,62%).

In Table 4, the risk ranges are shown relating to alcohol use pattern Test Identification of Problems Related to Alcohol Use (AUDIT).

Table 4. Distribution of frequencies and percentages of student responses to the question: "How many doses of alcohol do you consume in a normal day?" according to gender and total results

Risk of bands of students being the audit	Male	Male	Female	Female	Total	Total
	N	%	N	%	N	%
De 0 at 7	9	69,23	76	86,36	85	84,16
De 8 at 15	2	15,39	10	11,37	12	11,88
De 16 at 19	1	7,69	2	2,27	3	2,97
De 20 at 24	1	7,69	0	0	1	0,99
Total	13	100,00	88	100,00	101	100,00

The results in Table 4 show that 84.16 % of the students interviewed were low risk or teetotaler according to the AUDIT score, but was not ruled out, even if a small percentage (0.99%), the presence of a probable dependence .

In order to verify the existence of correlation, statistically significant, between alcohol use patterns, obtained by the students and the variables: age, academic year attending, often to parties and participation in extracurricular activities, was applied the correlation coefficient by Spearman's Rank (SIEGEL, 1975). The level of

significance was set at 0.05 in a bilateral test. The results are shown in Table 5.

According to the results shown in Table 5, were found positive correlations statistically significant between the values of standard variables of alcohol use and frequency between the parties and pattern of alcohol use and number of failures. From these findings there is evidence that the excessive consumption of alcohol creates a negative impact on academic life as failures. We notice also that those regulars parties are the ones Who drink alcohol, proving the easy access of these drinks in university parties.

Table 5. Rs values and probabilities associated with them, obtained when applying the correlation coefficient by Spearman's Rank, the figures relating to alcohol use patterns, obtained by the students and the variables: age, period attending, frequency to parties, amount of failures and participation in extracurricular activities.

Variables Analysed	Rs values	Odds
Standards x Ages	-0,045	0,652
Standards x Periods	0,035	0,729
Standards x Frequency standards to parties	0,632	0,000*
Standards x Deprecations	0,624	0,008*
Standards x Activities	-0,085	0,400

(*) p < 0.05

When the variables are in nominal scale, such as: sex, sleep or not in the classroom, arriving late to class and religion, to verify the existence of correlations, statistically significant between them and the standards, is first applied the chi-square test (SIEGEL, 1975), and then, since the results of this

test are significant, we used the coefficient of Contingency C (SIEGEL, 1975). The level of significance was set at 0.05 in a bilateral test. The critical value of X2 = 3.84. The chi-square test results are shown in Table 6.

Table 6. Chi-Square values found when applying the variables: pattern of alcohol use and sex, sleep or not in the classroom, arriving late to class.

Variables Analysed	Chi-Square value
Standard x Sex	5,54*
Standard x Sleeping in class	5,54*
Standard x Being late	7,14*

(*) p < 0.05

Note: Due to the low frequencies found, it was not possible to apply the Chi-square test ace standard variables of alcohol and religion.

According to the results shown in Table 6, were found statistically significant results among the variables analyzed. Regarding gender, there is a positive correlation, statistically significant, with the standard indicates that male students have higher standard, while female students have lower standard. This means that men still drink alcohol in larger quantities compared to women. Were also found positive correlations between patterns of use of alcohol and sleeping in class and being late.

DISCUSSION

The abuse of alcohol can bring different consequences for young people, such as unprotected

sex, car and home accidents, involvement in violence and worsening academic performance, among others (OMS, 2004). Of the 101 students who answered the AUDIT, 10 (9.9%) reported having caused injury or harm to himself or to another person, after drinking.

In this study, 16 (15.84 %) students of the students scored above 07 on the AUDIT, indicating that make some kind of problematic alcohol use. In relation to alcohol consumption there is still a small gap between men and women (COTRIN, 2002). Regarding gender, in this study, the positive correlation, statistically significant at the standard of alcohol indicates that male students have higher standard, while students have lower standard.

However, the female alcoholism is more common than you might think, however the cases are not accurately disclosed, getting most of the time the man as alcoholics (LUCAS; 2006). The OMS recommends a limit for the use of low risk alcohol no more than 3 doses for men and no more than 2 doses for women (PILLON; CORRADI, 2006).

Students who take the abuse of alcohol sleep more in class and miss more classes after they attended parties last night (PILLON; CORRADI, 2006). This was also observed in this study, and found statistically significant results between the values of variables "sleep in class" and" being late", as shown in Table 6.

International studies have found that one of the gifts damage in young people who were alcohol abuse was that often failed to meet academic obligations, such as skipping school or even slept in class. Also reported that the risk of failure in the subjects was higher among young people who are alcohol dependent than among non and that the risk of failing in college increases as the amount of alcohol consumed per week (AAERTGEERTS; BUNTIX, 2001; LOPEZ, 2002).

Religious practice can be a protective factor for these young people, helping them cope with stress, providing socialization situations where there is no drinking, situations of social support, expression and sharing emotions, influencing lifestyle and encouraging healthy behaviors (KOENIG,2001). But due to the low frequencies found, it was not possible to apply the Chi- square test ace religion variables and pattern of alcohol use.

Regarding the frequency with which students participate in parties and the average score on the AUDIT, a proportional relationship was found - the more often at parties, the higher the average score on the AUDIT (PILLON; CORRADI, 2006). It is found that 71.2 % of students who are problematic use of alcohol asleep in class after attending party the night before and 50% of them are late classes , with significant statistical relationship (PILLON; CORRADI, 2006), which was confirmed in this study by the positive correlations shown in Table 5 and 6.

The use and alcohol dependence pose a risk to health, damage to the learning process of the student (MIRANDA, 2007), were found in this study, statistically significant positive correlations between the values of the standard variables of use alcohol and quantity of failures in disciplines .

Generally, the habit of drinking bothers people around and the subjects themselves, it should decrease and / or stop using the drink in order to avoid a hangover or nervousness before the ethylic the requirements induce drinking (MIRANDA, 2007). In this study, 5.94% of respondents said that during the last year someone or a relative, friend or doctor, already worried about the fact that he drinking or suggested to stop, with a higher percentage male students (38.46 %) compared to females (1.14%), which shows concern for the relationship alcoholic beverage and health by relatives and friends.

By analyzing health behaviors in students in the health area at the beginning and end of the course, the consumption of alcohol, tobacco and inhalants and sex were the most frequent among students at the end of the course (COLARES; FRANÇA; GONZALEZ, 2009). In the research presented, there was no statistically significant positive correlations between the pattern of alcohol use and the period in which students are enrolled.

The Brazil grew by 74.5 % in alcohol consumption between the decades from 1970 to 1990, confirming that 10 % of the population was already considered an alcoholic and that this percentage is growing (RAMOS; BERTOLOTE, 1997), and this probably occurs because of great permissiveness of society regarding alcohol and the omission of the authorities, having therefore a concern to create and innovate prevention programs that address alcohol use, especially among young people.

The study allowed us to conclude that 15.84 % of students do some kind of abuse of alcohol, males have higher alcohol use pattern that the women, those who abuse of alcohol sleep more in room class, missing more class and are more disapproved.

In the current context, university students seem to be more vulnerable to alcohol consumption, which is a major concern with regard to health and academic behavior. There are many situations that contribute to this fact, and before that becomes necessary studies to identify risk situations for them, the percentage of students involved in the use of alcohol, its relationship to academic performance and the consumption pattern.

These findings emphasize the need for policies that control the sale of alcoholic beverages for the population of university students, hinder the achievement of open bar parties, sale of beverages in university events, as well as the sale and consumption of alcohol on campus. The great offer easy access to drinking , lack of educational programs aimed at the prevention of alcoholism in universities are allowing students to consume large amounts of alcohol in various university events

without limits and without knowledge of the risks that this attitude may result in future.

Then presents itself with this study updates, regarding the use of alcohol, young people and

future nursing professionals, because we will be responsible for educating the public about prevention and health maintenance in several diseases, including alcoholism.

RESUMO: Trata-se de uma pesquisa quantitativa desenvolvida junto a 101 estudantes do curso de Enfermagem da Universidade Federal de Uberlândia. O objetivo foi avaliar o padrão de uso de bebidas alcoólicas entre os estudantes e suas consequências na vida acadêmica. Foram aplicados o Teste de Identificação de Problemas Relacionados ao Uso de Álcool (AUDIT) e um questionário estruturado para levantar (com) informações sociodemográficas, sobre desempenho acadêmico e frequência em festas, atrasos e dormir em salas de aula. Os resultados foram: maioria mulheres (87,13%), estado civil solteiro (90,10 %), de religião católica (57,43%), 33,66% alunos tiveram reprovações em disciplinas, 83,17% alunos participam ou participaram de alguma atividade extracurricular, 45,55% alunos vão uma vez ou menos em festas, em um mês; 87,13% alunos afirmaram dormir em sala de aula no dia após ter frequentado uma festa; 82,18% costumam chegar atrasado em aula, após ter ido a uma festa na noite anterior; 29,70% não consomem bebida alcóolica. Foram encontradas correlações positivas, estatisticamente significantes, entre os valores das variáveis e frequência a festas e entre padrão de uso de bebida alcóolica e quantidade de reprovações. Com relação ao sexo, a correlação positiva, estatisticamente significante, com o padrão indica que os alunos do sexo masculino têm padrão mais elevado, enquanto que as alunas têm padrão mais baixo. Foram encontrados resultados estatisticamente significantes entre os valores das variáveis dormir na aula e chegar atrasado, isto indica que, à medida que os valores de uma das variáveis aumentam os valores da outra variável aumentam, também. Conclui-se que o padrão de uso de bebida alcoólica tem interferido no desempenho acadêmico dos estudantes sugerindo, portanto, a necessidade de programas educativos que visem à prevenção do alcoolismo.

PALAVRAS- CHAVE: Estudantes. Enfermagem. Alcoolismo. Bebidas alcoólicas.

REFERENCES

AERTGEERTS, B.; BUNTIX, F. The relation between alcohol abuse or dependence and academic performance in firstyear academic students. **J Adolesc Health**, New York, v. 31, p. 223-5, 2002. http://dx.doi.org/10.1016/S1054-139X(02)00362-2

BABOR, T; HIGGINS-BIDDLE, J. C. Alcohol screening and brief intervention: dissemination strategies for medical practice and public health. **Addiction**, London, v. 95, n. 5, p. 677–686, 2000. http://dx.doi.org/10.1046/j.1360-0443.2000.9556773.x

BABOR, T. et al. **AUDIT – the alcohol use disorders identification test: guidelines for use in primary care**. Geneva: World Health Organization, 2001.

COLARES, V; FRANCA, C; GONZALEZ, E. Condutas de saúde entre universitários: diferenças entre gêneros. **Cad. Saúde Pública**, Rio de Janeiro, v. 25, n. 3, mar, p. 521-528, 2009.

COTRIN, B. C. **Drogas**: Mitos e Verdades. 7^a ed. São Paulo: Ática; 2002.

DÉA, H. R. F. D.; SANTOS, E. N. DOS.; ITAKURA, E.; OLIC, T. B. A Inserção do Psicólogo no Trabalho de Prevenção ao Abuso de Álcool e Outras Drogas. **Psicologia Ciência e Profissão**, Brasília, v. 24, n. 1, p. 108-115, 2004. http://dx.doi.org/10.1590/S1414-98932004000100012

GIGLIOTTI, A; BESSA, M. A. Síndrome de Dependência do Álcool: critérios diagnósticos, **Rev Bras Psiquiatr**, São Paulo, v. 26, p. 11-13, 2004, Supl I. http://dx.doi.org/10.1590/s1516-44462004000500004

KAPLAN, H. I.; SADOCK, B. J. **Compêndio de psiquiatria dinâmica**. Porto Alegre (RS): Artes Médicas; 1993.

KERR-CORRÊA, F.; SIMÃO, M. O.; DALBEN, I.;TRINCA, L. A.; RAMOS, C. A. T. A.; MENDE, A. A. et al. Possíveis fatores de risco para o uso de álcool e drogas em estudantes universitários e colegiais da UNESP. **J Bras Dep Quim**, São Paulo, v. 3, n. 1, p. 32-41, 2002

KOENIG, H. G. Religion and medicine III: developing a theoretical model. **International J Psychiatry Medicine**, New York, v. 2, n. 31, p. 199-216,2001. http://dx.doi.org/10.2190/2YBG-NL9T-EK7Y-F6A3

LARANJEIRA, R. et al. **Usuários de substâncias psicoativas: abordagem, diagnóstico e tratamento**. 2 ed. São Paulo: Conselho Regional de Medicina de São Paulo/ Associação Médica Brasileira. 2003.

LOPEZ-FRIAS, M.; FERNANDEZ, M. D. L. F.; PLANELLS, E.; MIRANDA, M. T.; MATAIX, J.; LLOPIS, J. Alcohol consumption and academic performance in a population of Spanish high school students. **J Stud Alcohol**, New Jersey, v. 62, n. 6. p. 741-4, 2001. http://dx.doi.org/10.15288/jsa.2001.62.741

LUCAS, A. C. S. et al . Uso de psicotrópicos entre universitários da área da saúde da Universidade Federal do Amazonas, Brasil. **Cad. Saúde Pública**, Rio de Janeiro, v. 22, n. 3, mar, p. 673-671, 2006.

MIRANDA, F. A. N. de. Predisposição ao uso e abuso de álcool entre estudantes de graduação em enfermagem da UFRN. **Esc. Anna Nery** [online], Rio de Janeiro, v. 11, n. 4, p. 663-679,2007.

OMS. Classificação de Transtornos Mentais e de Comportamento da CID-10. Artes Médicas: Porto Alegre, 1993.

OMS. **Relatório sobre a saúde no mundo 2001**: saúde mental: nova concepção, nova esperança. Genebra: Organização Mundial de Saúde, 2001.

OMS. Global status report on alcohol. Genebra: WHO, 2004.

OMS. **Segundo informe**. Comité de Expertos de la OMS en Problemas Relacionados con el Consumo de Alcohol. Reunión. Ginebra, Suiza. OMS. Series de Informes Técnicos.2006.

PILLON, S. C; CORRADI-WEBSTER, C. M; Teste de identificação de problemas relacionados ao uso de álcool entre estudantes universitários. **R Enferm UERJ**, Rio de Janeiro, v. 14, n. 3, jul-set, p. 325-32, 2006.

RAMOS, S. P., BERTOLOTE, J. M. Alcoolismo hoje. Porto Alegre: Artes Médicas; 1997.

SIEGEL, Sidney. **Estatística Não-paramétrica Para as Ciências do Comportamento**. São Paulo: McGraw-Hill, 1975.

WEITZMAN, E. R.; NELSON, T. F.; WECHSLER, H. Taking up binge drinking in college: the influences of person, social group and environment. **J Adolesc Health**, New York, v. 32, n. 1, p. 26-35. 2003. http://dx.doi.org/10.1016/S1054-139X(02)00457-3