ORIGINAL ARTICLE

Alcohol use among medical students: a possible risk for future doctors? Uso de Álcool entre Estudantes de Medicina: um possível risco para futuros médicos?

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Abstract

Introduction: The use of psychoactive drugs in the world population increased until 2011 as well the alcohol consumption of university students. Many studies have appointed factors that may aggravate the problem. **Objective**: To evaluate the alcohol use by medical students in a private medical institution in Fortaleza, Ceará. **Methods**: A quantitative, cross-sectional study developed from July of 2015 to May 2016. Two instruments for collecting data were used: one related to socioeconomic, demographic, and nosographic data; and the AUDIT, the most used instrument for evaluating alcohol disturbance. There were 502 students enrolled from the first to the eighth semester. The sample was composed by 384 students, representing 76.5% of the eligible population. **Results**: The prevalence of risk related to use of alcohol was 36%. 62% of the students were female; 61.9% single; the age average was 22 years. The AUDIT's average score was 6.1 points. The majority of the students (64%) were classified as low risk use or abstinence (Zone I), while others 36% were located in different levels of risk. 37% had a positive family history for alcoholism, and only 28 (7.3%) had mental illness diagnosis. Variables as to being male, non-practicing religious, being sexually active, having a steady partner, concomitant use of tobacco and illicit drugs, living without the parents and hanging out with friends addicted to drinking were found to be risk factors for the abuse of alcohol. **Conclusion**: Data showed a high prevalence on the studied population in regard to risk related to the use of alcoholic beverages. The gravity of the problem demands health care and educational efforts to face it.

Key words: Alcohol Drinking in College. Alcohol-Related Disorders. Alcoholism. Medical Sudents.

Resumo

Introdução: A prevalência global para uso de substâncias psicoativas esteve em ascensão até 2011. Além do mais, observa-se que é crescente o uso de álcool por estudantes universitários. Fatores têm sido identificados para o agravamento dessa problemática. Objetivo: Avaliar o uso de álcool entre estudantes de medicina de uma instituição de ensino particular em Fortaleza/CE. Métodos: Estudo quantitativo e transversal, realizado de julho de 2015 a maio de 2016, utilizando dois questionários: o primeiro identificou variáveis socioeconômicas, demográficas e nosográficas; e o AUDIT, foi o instrumento mais utilizado para avaliar o distúrbio do álcool. Havia 502 estudantes matriculados do primeiro ao oitavo semestre. A amostra foi composta por 384 estudantes, correspondendo a 76,5% da população elegível. Resultados: A prevalência do risco relatado para o uso do álcool foi 36%. 62% eram do sexo feminino; 61,9% solteiros; média da idade de 22 anos. O escore médio do AUDIT foi de 6,1 pontos. A maioria dos sujeitos (64%) foram classificados como de risco baixo para o uso ou a abstinência (Zona I); os demais, 36%, se situaram em diferentes zonas de risco. 37% deles têm história familiar positiva para alcoolismo, e somente 28 (7,3%) têm diagnóstico de doença mental. As variáveis ser do sexo masculino, não praticante de religião, ser sexualmente ativo, ter parceiro fixo, fazer uso concomitante de tabaco e drogas ilícitas, morar sem os pais e conviver com amigos que bebem são fatores associados para o abuso de álcool. Conclusão: Os dados mostraram alta prevalência na população estudada em risco para o uso de bebidas alcoólicas. A gravidade do problema exige esforços dos cuidados de saúde e educacionais para enfrentá-lo.

Palavras-chave: Consumo de Álcool na Faculdade. Transtornos Relacionados ao Uso de Álcool. Alcoolismo. Estudantes de Medicina.

INTRODUCTION

O The prevalence for the use of psychoactive drugs in the world population had increased until 2011¹. However, in the last five years, drug consumption has remained stable. The United Nations (UN) estimate that over 360 million people use illicit drugs, which means 5% of total world population between 15 and 64 years of age2. The growing use of alcohol makes it the most consumed psychotropic drug among young people. In addition to dependence, this fact antecedes health problems in young population3. In Brazil, consumption of alcohol is also high, being used by almost 50% of the population⁴.

The excess of this substance may expose people to social and health problems, including sexually transmitted diseases, undesirable pregnancy, myocardial infarction, physical and mental problems, dependence, and several episodes of intoxication. Besides it, is the main responsible for more severe accidents and violent deaths. Studies have already shown that the younger the person starts using alcohol, the greater is the propensity for dependence^{5,6,7}.

The Brazilian Information Center about Psychotropic Drugs has

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Conflito de interesse: Não há conflito de interesse por parte de qualquer um dos autores. Recebido em: 6 Fev 2017; Revisado em: 20 Jun 2017; 26 Jul 2017; 29 Ago 2017; Aceito em: 31 Ago 2017 found that 6% of men and 1% of women, whose ages range between 18 and 24, drink more than three times a week; this percentage elevates to 12% and 2%, respectively, in both gender, for people over 25 years of age. This time interval coincides with the period in which young people are enrolled in universities. According to the literature about the problem, when teenagers drink, they tend to do it on a heavy way, which may be characterized as serious abuse (binge drinking) that means to drink five or more doses in one occasion^{8,9,10,11}.

Studies have shown a high prevalence for alcoholic beverages consumption among university students. Vital situations which are potentially capable to turn use into abuse or dependence are considered risk factors. Thus, the need to overcome insecurity and the search for self-assertion and short time relief for dissatisfactions/frustrations set a context for risk factors6. As far as the medical students are concerned, specific demands such as night shifts, the recurrent contact with illness and death represent an additional burden, which challenges the limits of their omnipotence¹².

According to a survey developed in 2010, with students from public and private universities¹³, 77.3% of the men and 66.6% of women said that have consumed alcohol in the last 12 months. A decade ago, Silva et al.¹⁴, found that lifestyle and socioeconomic status were associated to that condition after investigating factors which were related to the use of alcohol and drugs among university students.

Excessive consumption of alcohol among medical students constitutes a worrisome situation that may be related with the fact that attendance to a university means sometimes the first experience for a student of being part of a group, without the parents and family supervision. In addition, other conditions such as an excessive number of classes a day, the occurrence of night shifts, the difficulties of dealing with patients and suffering, few opportunities for leisure, lack of the family support and financial independence may aggravate the problem. These conditions have more severe effects in the last years in medical school, bringing about an increase in drug consumption. Most of the students overcome the situation; however, for those who don't, this conflict might end up in depression, anxiety, low school performance, family problems, and abuse of substances as alcohol^{5,8,15,16}.

Early diagnosis of abuse, dependence, and the consumption pattern of alcoholic beverages by medical students are important, since there is much concern about the future of these professionals, their practices, their cognitive and behavioral development and their emotional instability that may result from the problem. The current study aimed at evaluating the use of alcohol among medical students in a private institution located in Fortaleza, State of Ceará.

METHODS

This is a quantitative, cross-sectional study which was developed

with students of a medical school in one private University of Fortaleza - Ceará, from July, 2015 to May, 2016.

The study's population was composed of 502 students enrolled from the first to the eighth semester of their graduation program. The students from the ninth to twelfth semesters were excluded due to the difficulties for applying the questionnaires. These students were involved in many activities related to the end of the graduation program such as exploring possibilities of future medical studies or work in their own city, outside their state, even in other countries. The students were contacted and invited to participate in the research, safeguarding the voluntary character by the consent form (Termo de Esclarecimento Livre e Esclarecido – TCLE). In order to avoid duplicate answers, there was a control procedure by means of the students' signature.

It was set a prevalence of 50% (p=50%) to calculate the size of the sample considering the maximum sample's size that was composed by 398 individuals, from which 14 were excluded due to incomplete answers in the questionnaires. Therefore, n=384 was the rating that was defined by the calculation for finite populations, 502 in this case. It was set a meaning level of 5% (α = 0.05) and an absolute sampling error of 2.4%. The 384 subjects that composed the sample represented 76.5% of the eligible population.

Two self-applicable closed questionnaires were used and the students did not identify themselves. The average time for answering the questionnaires was 15 minutes. The first one included socioeconomic, demographic, and nosographic factors and the second questionnaire was the Alcohol Use Disorder Identification Test (AUDIT), validated for Brazilian Portuguese language. It is a test for identifying problems related to alcohol, and is has been used to evaluate the use of alcohol. It was selected because it is currently considered the best method to stratify alcoholism. AUDIT is a test that is composed by ten questions of easy and fast application, and requires a simple training for data codification. The first three questions evaluate quantity, frequency and drunkenness; the following three are related to dependence, symptoms and the last four are questions that evaluate the risk of harmful consequences.

According to the total amount of scores obtained in this test, consumption of alcohol may be classified into 4 risk zones and for each of them distinct intervention procedures are defined. The Zone I (until 7 points) – indicates low risk, use or abstinence; Zone II (from 8 to 15 points) – indicates risk use; Zone III (from 16 to 19 points) – suggests harmful use; and Zone IV (up to 20 points) – shows a potential dependence^{17,18,19,20,21}.

The collected data were transferred to a database and it was organized and analyzed by the program STATA for Windows, version 14.

Similar categories of ordered variables were added to avoid frequencies lower than ten. Similarly, categories of not ordered categorical variables were added. In the attribution of scores to each of the items, to those that had no answers, it was attributed zero as score, in the situations in which "having no answer" followed the instructions of filling in the blanks. After this procedure, a few items from some of the questionnaires (14) remained without answers, and, therefore, they were excluded from the analyzed sample.

Initially, the scores from AUDIT were stratified into four categories or zones; then, the two last categories were transformed into a single one and, therefore, the final analysis of the data the scores were represented by one ordered categorical variable composed by three categories: Categories 1 (Zone I), Categories 2 (Zone II) e Categories 3 (Zone III and IV).

The relation between the independent variables and the individual score was evaluated by comparing of proportional distribution of the three AUDIT categories, in each of the independent variable categories. These comparisons were calculated by means of the Pearson chi-squared test or Fisher's exact test. When the lowest expected value of one of the cells in the contingence table was lower than 5, it was used Fisher's exact test. In other situations, it was used the Chi-squared test. The proportions were considered significantly different when their probability of being identical was lower than 5% (p < 0.05)

This study was developed after the approval of the Research Ethics Committee of Christus University Center. It received the number CAAE 43369415.2.0000.5049, in accordance with Law 466/12 of the National Health Council (Conselho Nacional de Saúde -CNS/Ministério da Saúde - MS), which regulates researches in humans. All participants signed the Informed Consent.

RESULTS

According to the data analysis related to 384 individuals, 62% of them were female; most of the studied population (61.9%) was single and their average age was 22.0 ± 3.2 years (Table 1). Regarding the AUDIT questionnaire, the average score was 6.1 ± 6.2 points, which classifies the majority (64.1%) in Zone I, while 35.9% of the students showed risks of alcohol use in different levels (Table 1).

The students who are male and belong to the non-practicing religious category showed a higher statistical prevalence of alcohol dependence (p < 0.01) (Table 2). Concerning the payment of the university fees, there is a predominance of students (44.2%) who have their studies financed by a Student Financial Assistance Fund (Fundo de Financiamento Estudantil - FIES), followed by "payment by the parents" (43%), and the remaining 12.8% have a scholarship from the Brazilian "University For All Program" (Programa Universidade para Todos – PROUNI). (Table 3).

The students who live with their parents correspond to (73.8%) of the sample; this condition is an important factor for preventing alcoholism, which, in other words, may function as a protection. Regarding extracurricular activities, the students which participate in scientific research and other student programs have a statistical significant increase of alcohol use, with p=0.07 e p=0.03, respectively (Table 4).

Table 1. General characteristics of the study population

Variable	N(%)
Gender	
Male	146 (38.0)
Female	238 (62.0)
Marrital Status	
Single	237 (61.9)
Married	136 (35.5)
Divorced	10 (2.6)
AUDIT score	
I	246 (64.0)
II	101 (26.3)
III	23 (6.0)
IV	14 (3.7)
Semester distribution	
1st	55 (14.3)
2nd	45 (11.7)
3rd	53 (13.8)
4th	47 (12.2)
5th	44 (11.5)
6th	49 (12.8)
7th	48 (12.5)
8th	43 (11.2)
Use of alcohol	
Yes	266 (69.3)
No	118 (30.7)

It was found that being virgin reduces the prevalence of alcohol consumption. Among students who are sexually active and have a steady partner, it was identified an increased prevalence for alcoholic dependence (Table 1).

There is a family history for alcoholism in 37% of the students; this percentage is considered statistically significant to increase the prevalence of developing alcoholism. The occurrence of mental illness in the family history (36%) was associated to an increased prevalence for developing alcohol use. Only 28 of the students have a diagnosis of mental illness, but this number doesn't mean a statistical difference. Among the diagnoses, the most frequent were: Depression (33.3%), Generalized Anxiety Disorder - GAD (22.2%), Obsessive-Compulsive Disorder -OCD (11.1%), Bipolar Disorder (7.4%) and Attention Deficit Hyperactivity Disorder - ADHD (7.4%) (Table 3).

Table 2. General characteristics of the study population related to the risk of alcohol dependence according to the zones I, II and III or IV

Veriable	Total		р		
Variable	Total —	Zone I N(%)	Zone I N(%) Zone II N(%) Zone III		
Gender		-			
Male	146	70(47.9%)	56(38.4%)	20(13.7%)	
Female	238	176(73.9%)	45(18.9%)	17(7.2%)	< 0.001
Age					
18-21 years	190	129(67.9%)	48(25.3%)	13(6.8%)	
22-42 years	178	107(60.0%)	49(27.5%)	22(12.5%)	0.136
Marrital Status					
Single	237	153(64.6%)	62(26.2%)	22(9.2%)	
Divorced	10	7(70.0%)	2(20.0%)	1(10.0%)	
Married	136	86(63,24%)	37(27,21%)	13(9,56%)	0.991
Semester distribution					
1st	55	38(69.1%)	15(27.3%)	2(3.6%)	
2nd	45	32(71.1%)	9(20.0%)	4(8.9%)	
3rd	53	35(66.0%)	12(22.6%)	6(11.4%)	
4th	47	33(70.2%)	9(19.2%)	5(10.6%)	
5th	44	29(65.9%)	8(18.2%)	7(15.9%)	
6th	49	31(63.3%)	16(32.6%)	2(4.1%)	
7th	48	25(53.1%)	18(37.5%)	5(10.4%)	
8th	43	23(53.5%)	14(32.6%)	6(13.9%)	0.319
Religion					
Catholic	292	181(62.0%)	82(28,1%)	29(9.9%)	
Other	90	64(71.1%)	19(21.1%)	7(7.8%)	0.287
Practicing religious					
Yes	235	164(69.7%)	57(24.3%)	14(6.0%)	
No	132	67(50.8%)	43(32.5%)	22(16.7%)	< 0.001
Income					
1-10 basicwages	144	92 (63.9%)	39(27.1%)	13(9.0%)	
11-90 basicwages	135	82(60.7%)	32(23.7%)	21(15.6%)	0.239
Live with their parents					
Yes	282	192(68.1%)	63(22.3%)	27(9.6%)	
No	100	52(52.0%)	38(38.0%)	10(10.0%)	0.007
Virgin					
Yes	106	94(88.7%)	11(10.4%)	1(0.9%)	
No	272	146(53.7%)	90(33.1%)	36(13.2%)	<0.001
Children					
Yes	8	4(50.0%)	2(25.0%)	2(25.0%)	
No	375	241(64.3%)	99(26.4%)	35(9.3%)	0.325
Sexually active		, ,	. ,	, ,	
Yes	208	114(54.8%)	65(31.3%)	29(13.9%)	
No	169	125(74.0%)	36(21.3%)	8(4.7%)	<0.001

Madala.		Risk levels			
Variable	Total —	Zone I N(%)	Zone II N(%)	Zone III or IVN(%)	р
Steady partner					
Yes	166	99(59.6%)	47(28.3%)	20(12.1%)	
No	135	100(74.1%)	26(19.3%)	9(6.7%)	0.029
Family history for alcoholism					
Yes	141	82(58.2%)	39(27.7%)	20(14.2%)	
No	240	162(67.5%)	62(25.9%)	16(6.7%)	0.036
Family history of mental illness					
Yes	136	88(64.7%)	28(20.6%)	20(14.7%)	
No	242	153(63.2%)	73(30.2%)	16(6.6%)	0.011
Diagnosis of mental illness					
Yes	28	29(67.9%)	7(25.0%)	2(7.1%)	
No	351	225(64,1%)	93(26,5%)	33(9.4%)	0.895
Treatment of mental illness					
Yes	111	73(65.8%)	23(20.7%)	15(13.5%)	
No	269	170(63.2%)	78(29.0%)	21(7.8%)	0.090
Friends who use alcohol					
Yes	322	187(58.1%)	99(20.7%)	36(11.2%)	
No	61	58(95.1%)	2(3.3%)	1(1.64%)	< 0.001

Table 3. Payment of the school of the study population related to the risk of alcohol dependence according to the zones I, II and III or IV

Variable	Total		р		
		Zone I N(%)	Zone II N(%)	Zone III or IVN(%)	
FIES					
Yes	170	106(62.4)	47(27.6)	17(10.0)	
No	213	140(65.7)	54(25.4)	19(8.9)	0,789
PROUNI					
Yes	49	38(77.5)	9(18.4)	2(4.1)	
No	334	208(62.3)	92(27.5)	34(10.2)	0,100
Self payment					
Yes	15	12(80.0)	1(6.7)	2(13.3)	
No	368	234(63.6)	100(2.2)	34(9.2)	0,206
Payment through the parents					
Yes	165	94(57.0)	52(31.5)	19(11.5)	
No	218	152(69.7)	49(22.5)	17(7.8)	0,036
Other forms					
Yes	6	6(100)	0(0)	0(0)	
No	377	240(63.6)	101(26.8)	36(9.6)	0,183

Table 4. Description of participation of extracurricular activities related to the risk of alcohol dependence according to the zones I, II and III or IV

	Total	Risk levels			
Variable		Zone I N(%)	Zone II N(%)	Zone III or IVN(%)	
Scientific research	-				
Yes	104	55(52.9)	31(29.8)	18(17.3)	
No	277	189(68.2)	69(24.9)	19(6.9)	0,003
Scientific work					
Yes	102	62(60.8)	25(24.5)	15(14.7)	
No	279	182(65.2)	75(26.9)	22(7.9)	0,137
Monitoring					
Yes	114	77(67.5)	28(24.6)	9(7.9)	
No	267	167(62.6)	72(27.0)	28(10.4)	0,594
Academic league					
Yes	93	59(63.5)	23(24.7)	11(11.8)	
No	288	185(64.3)	77(26.7)	26(9.0)	0,711
Internship					
Yes	52	24(46.1)	18(34.6)	10(19.3)	
No	329	220(66.9)	82(24.9)	27(8.2)	0,006
Courses					
Yes	232	145(62.5)	59(25,43)	28(12,07)	
No	149	99(66.5)	41(27,52)	9(6,04)	0,152
Congress					
Yes	200	130(65.0)	51(25.5)	19(9.5)	
No	181	114(63.0)	49(27.1)	18(9.9)	0,919

The percentage of using any illegal substance in the last twelve months and sometimes in life (10% and 14%, respectively) was statistically significant to alcohol dependence. However, there was no significant difference related to the use of several illicit substances as Cannabis, LSD, cocaine or amphetamines. In the studied population, only 4.5% reported smoking, and the majority (88.3%) smokes less than a pack a month, but there was a statistical association between smoking and alcohol dependence (p < 0.001) (Table 5).

Considering the social group, being introduced to friends who use alcohol is a risk factor, which is present in a quite high number of cases (84.1%). This fact is associated to an increased prevalence of dependence (p < 0.001)(Table 5).

DISCUSSION

This research, which studied only youngsters who were university students showed a prevalence of nearly 70%. The authors identified several studies related to this subject that allowed comparison to this research.

Caetano et al²², for instance, in the first national research about

alcohol consumption, indicated that a quarter of the adult Brazilian population, represented by people who are 18 years or more consumed alcohol. More recently, Pedrosa et al23, 2011, found a prevalence of alcohol use at least once in life of 90.4% of the population²³.

The estimated prevalence of alcohol abuse in Brazil was of 13.7%, with numbers 3.3 times higher in men than in women. The data found in this study are equivalent to 9.6% and 1.9 times, respectively. There was also a history of illicit drug use in 28.4% of students while the present study showed a lower figure than the one reported (13.8%)²⁴.

Silva et al¹⁴ studied a sample of 926 undergraduate students in in the health area in the University of São Paulo (USP), and reached the following results: among university students who use alcohol, 60.7% were women, 95.2% were single, 79.8% were living with family members and 97.4% did not have children.

In many studies, religion appears to have a protective effect on the consumption of alcohol, while high income family increases the risk for alcohol use and illicit drugs^{12.25}. On other hand, consumption was found to be higher in the fifth and eighth semesters of the medical course^{24,26}.

Table 5. Description of use of any legal or illegal substance related to the risk of alcohol dependence according to the zones I, II and III or IV

Variable	Total		Risk levels		
Variable	Total	Zone I N(%) Zone II N(%) Zone III or IVN(%)			
Use of any illegal substance sometime in life					
Yes	53	12 (22,6)	27(50.9)	14(26.5)	
No	325	232 (71,4)	73(22.4)	20(6.2)	< 0.001
Canabis sometime in life					
Yes	42	7(16,7)	23(54.8)	12(28.5)	
No	11	5 (45,4)	4(36.4)	2(18.2)	0.127
Cocaine sometime in life					
Yes	3	0 (0)	1(33.3)	2(66.7)	
No	50	12 (24,0)	26(52.0)	12(24.0)	0.239
Amphetamine sometime in life					
Yes	8	1 (12,5)	5(62.5)	2(25.0)	
No	45	11 (24,4)	22(48.9)	12(26.7)	0.713
LSD sometime in life					
Yes	7	0 (0)	3(42.9)	4(57.1)	
No	46	12 (26,2)	24(52.1)	10(21.7)	0.090
Others drugs sometime in life					
Yes	11	4 (36,4)	4(36.3)	3(27.3)	
No	42	8 (19,0)	23(54.8)	11(26.2)	0.419
Smoking					
Yes	17	1 (5,9)	10(58.8)	6(35.3)	
No	363	242 (66,7)	91(25.0)	30(8.3)	<0.002
Smoking and drinking					
Yes	7	1 (14,3)	2(28.5)	4(57.2)	
No	273	142 (52,0)	98(35.9)	33(12.1)	
No smoking	102	101 (99,0)	1(1.0)	0(0)	< 0.001

In Alagoas State, Brazil, the average of the students' age who use alcohol was 21.3 (Standard deviation-SD = 2.5). One international study with a sample of 3286 university students, in France, about prevalence of binge drinking and associated behaviors classified prevalence of binge drinking in the following categories: never, occasional and frequently categories. The results were 34.9, 51.3 and 13.8 %, respectively. And the mean age of the students was 20.8 years old (SD = 2.1). There was an association between the use of alcoholic beverages and the facts of being male e and living without the family^{23,27}.

Many studies which used AUDIT as a methodological tool for investigating the use and risk of alcohol consumption were found in the literature. Peuker et al, 2006, studied 165 students and associated AUDIT to the Inventory of Expectations and Personal Beliefs About Alcohol - Inventário de Expectativas e Crenças Pessoais Acerca do Álcool (IECPA). They could identify 44.2% of risk consumers (score > 8), 35.7% women and 53.1% men. The mean age of the students was 22 years (SD = 2.5)²⁸.

Formiga et al, 2013, studied 201 university students between 18 and 32 years. 47.3% students were classified in Zone II (risk of use), 18.4% in Zone III (harmful use), and 34.3% in Zone IV (possible dependence)^{28,29}. Rocha et al., 2011, studied 571 medical students enrolled in the first to eight semesters in two colleges in Minas Gerais State, Brazil, one public and one private. Over 60% of them had used alcohol in the last 12 months. From these, 23.3% were classified in Zone II and 1.9% in Zone III8. However, this current study shows predominance of Zone I, contradicting that literature.

Despite the high prevalence rates of alcohol use in the current research, they were lower than in the literature consulted. In other hand, history of illicit drugs use, age, marital status, living without family parents and association between alcohol and smoking almost follow the same pattern funded. There is a reversal concerning the dominance of relation men/women. As reported in other studies, religion seems to have a protective effect on the consumption of alcohol, but there is an increase

rate for abuse of alcohol associated with more high income factor. This study showed that there is no significant relation between the current semester and an increased risk of abusive alcohol use.

The medical students who have their parents as financial responsible composed the group which had an increased prevalence for alcohol consumption. The data related to virginity, being sexually active, having a steady partner, developing extracurricular internships and initiative for science could not be compared with other literature due to the lack of identification

At last, more than one-third of the studied population had meaningful scores according AUDIT questionnaire and were classified in zone II to IV (risk use, harmful use or alcohol dependence). This fact, per se, makes the alcohol use by our future doctors an actual and relevant problem.

The main limitations identified in this study were related to size of the sample; the inclusion of only one university campus among the existing four in the state of Ceará; the exclusion, for methodological reasons already explained, of the students

attending the ninth to twelfth semester of the internship and the lack of resources concerned to language and statistical support.

CONCLUSION

The application of the AUDIT questionnaire showed that 36% of the studied population presents a risk related to the abuse of alcoholic beverages. The variables: being male, non-practicing religious, being sexually active, having a steady partner, concomitant use of tobacco, use of illicit drugs, living without parents, and association with friends who drink were identified as risk factors to an increasing prevalence for abuse of alcohol, according DSM-5. The results of this study related to the use and abuse of alcohol indicate that the universities and the government health agencies urgently need to develop campaigns and intervention activities aiming at preserving the professionals who will work with healthcare.

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