

The perception of college students about the consequences of binge drinking*

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Objective: verify the perception of Brazilian university students about the risks of a behavior called Binge Drinking. **Method:** descriptive exploratory, cross-sectional, quantitative nature. Participated 2641 students from all regions of Brazil. **Results:** it was found that 24.8% of respondents considered to be a heavy drinker. It has been found that the beverage most used in the practice of binge drinking is beer. Those who have practiced the binge drinking, 75.8% responded that they repeated this consumption. **Conclusion:** is that a significant portion of university practices binge drinking and most do not realize the risk related to this behavior.

Descriptors: Binge Drinking; Alcohol Drinking in College; University; Universities; Alcohol Abuse.

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A percepção de universitários sobre as consequências do beber pesado episódico

Objetivo: verificar a percepção de universitários brasileiros sobre os riscos de um comportamento chamado de Beber Pesado Episódico (BPE). **Método:** estudo possui delineamento descritivo exploratório, de corte transversal, de natureza quantitativa, Participaram 2641 estudantes de todas as regiões do Brasil. Constatou-se que 24,8% dos respondentes consideram-se um bebedor pesado. **Resultados:** verificou-se que a bebida mais utilizada na prática do BPE é a cerveja. Os homens praticaram mais o BPE (31,7%) do que as mulheres (19,5%). Dos que já praticaram o BPE, 75,8% responderam que repetiram esse consumo. **Conclusão:** uma parcela significativa dos universitários pratica o BPE e sua maioria tem uma baixa percepção do risco relacionado a esse comportamento.

Descritores: Bebedeira; Consumo de Álcool na Faculdade; Universidades; Abuso de Álcool.

La percepción de los universitarios con respecto a las consecuencias de los episodios de consumo excesivo de alcohol

Objetivo: verificar la percepción de los estudiantes universitarios brasileños sobre los riesgos de un comportamiento llamado Episodios de consumo excesivo. **Método:** la investigación fue descriptiva-exploratoria, de corte transversal con naturaleza cuantitativa. Participaron 2641 estudiantes de todas las regiones de Brasil. **Resultados:** se constató que el 24,8% de los participantes se consideraban dentro del patrón del episodio de consumo excesivo y se verificó que la cerveza es la bebida más utilizada en dicha práctica. De los que ya habían realizado alguna vez el consumo excesivo, el 75,8% respondieron que repitieron ese patrón. **Conclusión:** se concluye que un número significativo de universitarios practica los episodios de consumo excesivo de alcohol y que en su mayoría no perciben el riesgo relacionado a este comportamiento.

Descriptorios: Borrachera; Consumo de Alcohol en la Universidad; Universidades; Abuso de Alcohol.

Introduction

University life is characterized as a period of transformation and access to a new level of social and academic/professional life, including greater family independence, the building of new friendships and the demand for the definition of new perspectives of life. For this reason, depending on the student's life history, this can be a critical period of many changes and challenges, which leads them to be a segment in a situation of greater vulnerability and, therefore, alcohol abuse and its consequences⁽¹⁻⁴⁾. In addition, the cultural habits among these students consolidate normative beliefs that drinking is a common behavior in their social environment, as well as shared perception about the importance of drinking in the experience of being a university student⁽⁵⁾, which places alcohol in a kind of instrument of social amalgam. Thus, compared to other populations in general, this category presents a pattern of alcohol consumption considered to be at greater risk and performed more frequently and intensely, which justifies the need for specific attention for this population^(1,4,6).

A portion of these students presents a behavior called Episodic Binge Drinking (EBD), term proposed as alternative of denomination, in Portuguese, for the phenomenon of *binge drinking*⁽⁷⁻⁸⁾. Conceptualized as the consumption of a high amount of alcohol in a short period of time^(4,6,9). This is one of the most dangerous and frequent patterns of consumption and is associated with a series of physical and psychosocial problems^(6,10) and is therefore considered a public health problem⁽¹¹⁾.

In the USA, Wechsler and Nelson⁽¹²⁾ were the first to present this concept, describing it as a pattern of alcohol consumption popularized among American university students. The *International Center for Alcohol Policies* (ICAP)⁽⁷⁾ informs that there are several definitions on the amount of doses consumed by the Episodic Binge Drinker and this concept changes in relation to nationality. The most used and adopted in this research is presented by the National Institute of Alcohol Abuse and Acoholism(NIAAA), which defines it as: "a" binge "is a pattern of drinking alcohol that in a blood concentration of 0.08g per 100ml blood alcohol or more. For a typical adult this pattern corresponds to the consumption of five or more doses* (male) or four or more (female) doses in about two hours (our translation)".

It is necessary to consider that this definition refers only to the episodes of individual compulsion and does not contemplate the number of occurrences or the period of time EBD and nor the pattern of consumption that can have serious consequences. In order to differentiate alcohol dependence from episodic binge drinking, it is necessary to consider the interval of time that consumption repeats. Some authors describe

that this interval can be one or two weeks, one month, six months or one year⁽¹⁴⁾. This survey will consider the frequency of one month.

Scientific evidence shows that these amounts of alcohol intake increase the risks of exposure to problems such as dependence, loss of consciousness, risk of death, acute myocardial infarction, gastric problems, among others^(1,8,15-16). Among the most prevalent behavioral consequences of EBD are the involvement in traffic accidents, unprotected sex, unwanted pregnancies, sexually transmitted diseases, suffering and / or sexual abuse, decreased academic productivity, involvement in fights, loss of progress and structuring of cognitive-behavioral skills^(1,4,8-9,15-17). This pattern of consumption is associated with sleep, academic performance and retention of knowledge⁽¹⁸⁾. Thus, EBD is considered a high-risk behavior and is related to several negative physical, emotional and social consequences⁽¹⁾.

The largest scientific research on patterns of alcohol consumption comes from developed countries. In the USA, since 1993, US university officials have acknowledged the behavior of *binge drinking* and its consequences, so they have directed more attention to these young people and conducted surveys and research on the risks in this young population⁽¹²⁾.

In the II National Survey on Alcohol and Drugs, carried out in 2012, data are compared with the I National Survey on the Patterns of Alcohol Consumption in the Brazilian Population, carried out in 2006⁽¹⁹⁾, in which they reveal the prevalence of Episodic Binge Drinking in the last 12 months. In 2006, 45% of non-abstainers reported EBD occurring in the past 12 months. In 2012, that number rose to 58%, an increase of 13%. Among men, this increase was 12 percentage points (54% in 2006 and 66% in 2012). Among women, growth was slightly higher compared to men and the total: 14% (34% in 2006 and 48% in 2012)⁽¹⁹⁾.

The federal government also carried out a specific survey among university students about the pattern of use of psychoactive substances. The "I National Survey on the Use of Alcohol, Tobacco and Other Drugs among University Students of the 27 Brazilian Capitals", conducted with a sample of 12,673 participants, describes the behavior of binge drinking and concludes that every four Brazilian university students present at least one occasion of episodic binge drinking in 30 days prior to the survey interview and one in three reported having drunk that pattern in the last 12 months⁽¹⁾. Regarding the prevalence of binge drinking among college students, 32.2% reported a pattern of consumption of more than five doses on a single occasion at a weekly frequency and 1.9% of the total sample consumed five or more doses at a single occasion almost all the days⁽¹⁾.

Male college students binge drank more than women^(1,8,10) and 31.3% of them had already used alcohol in the EBD pattern, compared to women, which accounted

* For comparison a standard dose of alcoholic beverage (350ml of beer, 150ml of wine or 50ml of distillate) contains approximately 10-14g of pure alcohol (Arantes, 2012; Silveira et al., 2012).

for 20.3% in the last 30 days. When the analyzed period considers the last 12 months prior to the survey, the difference is even more evident, 43.7% of men reported having drunk in this pattern and 29% of women.

With regard to age, consumption tends to decrease with the passage of time^(8,10). Among youths up to 18 years of age, 29% reported having had a binge drink in the 30 days prior to the survey, 27.8% in the 18 and 24 years age group; 22.9% between 25-34 years and 17.8% are older than 35 years⁽¹⁾. The research also identified a high consumption among university students of Exact Sciences (34.7%) compared to biological (24.6%) and human (23.3%) areas⁽¹⁾.

The objective of this article is to characterize the pattern of EBD use among university students, as well as their perception about the consequences of episodic binge drinking for their academic and social life.

Method

This research had an exploratory, descriptive, cross-sectional design with a quantitative observational nature.

For data collection, a questionnaire was constructed based on the specific objectives of this research. The instrument contained some open and closed questions. The questionnaire had a total of 20 questions, eleven relating to characterization data and profile of the subject, two referring to the pattern of alcohol consumption and five referring to the perception and knowledge about the EBD and its risks and consequences. For this analysis, only one open question about the monthly frequency was used, the remaining questions were closed questions.

The research was done from the insertion in closed groups of university students of an internet social network. After the moderators' authorization, the instrument in which participants responded online was made available. Altogether there were 2641 respondents, distributed in 311 Higher Education Institutions (181public and 144 private).

Descriptive and inferential statistics were used, using a statistical significance level of 5% ($p < 0.05$), and the consistency analysis was performed with test χ^2

Results

Participants were graduates of various Higher Education Institutions (HEIs) across Brazil, totaling 2641 participants, with a mean age of 22 years ($S=5.2$), mostly from public institutions ($n=2188$), students of several areas of knowledge. In Table 1 are contained the general characterization data of the subjects of the research involving sex, age, marital status, whether or not they have paid activity, religion, type of HEI and the areas of knowledge of the respondents.

Table 1 – Characterization data of the respondents. Brazil, 2016

	Variable	N.	Percentage
Sex	Female	1480	56.0%
	Male	1161	44.0%
Age (years)	Less than or equal to 18	332	12.6%
	19 to 24	1745	66.1%
	25 to 30	406	15.4%
	31 to 35	82	3.1%
	36 to 40	34	1.3%
	41 or more	42	1.6%
	Average		
Marital status	Single	2351	89.0%
	Married/ Stable Union	264	10.0%
	Divorced/ Separated	22	0.8%
	Widow	4	0.2%
Paid Activity	No	1385	52.4%
	Yes	1256	47.6%
Home	With parents and / or other relatives	1502	56.9%
	With friends / colleagues	612	23.2%
	Alone	299	11.3%
	With spouse	200	7.6%
	With boyfriend	20	0.8%
	Others	8	0.3%
	Religion	Agnostic / Atheist / Non-Religious	928
Catholic		830	31.4%
Evangelical / Protestant		405	15.3%
Spiritist		275	10.4%
Deist (Believes in God)		84	3.2%
Others		88	3.3%
Umbandist / Candomblé		31	1.2%
Type of HEI*	Public	2188	82.8%
	Private	450	17.0%
Large Knowledge Area	Applied Social Sciences	570	21.6%
	Engineering	557	21.1%
	Human Sciences	365	13.8%
	Health Sciences	298	11.3%
	Exact and Earth Sciences	250	9.5%
	Others	157	5.9%
	Business, Economics and Administration	152	5.8%
	Linguistics, Literature and Arts	150	5.7%
	biological Sciences	142	5.4%
	Total of Subjects		2641

*HEI: Higher Education Institution

It can be seen from Table 1 that the majority of respondents are female ($n=1480$) making up 56% of the total. Regarding age, the participants ranged from 19 to 24 years (66.1%), with an average of 22.5%.

The vast majority of respondents are single (89%) and live with their parents (56.9%). Just over half reported that they did not engage in any gainful activity (52.4%). As for religion or religious denomination, most of the participants affirmed themselves to be atheists, agnostic or non-religious (35.1%), with the predominance of Catholics and, to a lesser extent, evangelicals.

Regarding the type of institution, 82.8% of the respondents stated that they belong to a public teaching institution of federal and state education. The sample of participants was classified according to the area of knowledge of CAPES, and the students of Applied Social Sciences had the largest number of participants (21.6%).

Concerning the university's perception and knowledge about EBD, 91.5% of the participants stated that they had never heard of this pattern of consumption. This was one of the first questions in the questionnaire and in which the respondent had not received any information yet on the subject of the survey. Based on the EBD practice classification information (5 doses for men and 4 for women on a single occasion), the university was asked if they considered themselves a Binge Drinker, 75.2% of whom said they did not considered a EBD and 24.8% confirmed that this type of drinker was considered.

Regarding the frequency of EBD behavior among respondents, we can observe the data in Table 2.

Table 2 – Frequency of EBD* among respondents. Brazil, 2016

	Frequency	Percentage
Blank	33	1.2
There was no repetition	263	10.0
In the last month	581	22.0
In the last 3 months	473	17.9
In the last 6 months	356	13.5
In the last 12 months	592	22.4
That type of consumption never happened	343	13.0
Total	2641	100.0

*EBD: Episodic Binge Drinking

This research aimed to analyze how often the practice of EBD was repeated among university students. It is noteworthy that 85.80% had already had a binge episode at some time in their life, 75.80% of which occurred in the last year. A significant index, even, indicated that it consumed EBD in the last month (22.0%), indicating in this case a higher risk pattern.

It is interesting to note the discrepancy between self perception and the pattern of use, because although only 24.8% considered themselves an episodic binge drinker, 39.90% of the sample had binge episodes in the last three months.

Next, the number of doses of beverages ingested in different occasions was verified, as shown in Table 3.

Table 3 – Monthly frequency and types of alcoholic beverages most consumed in EBD among university students. Brazil, 2016

	Less than 5 doses	5 to 10 doses	Above 11 doses
Beer or draft	83.3%	12.4%	4.1%
Wine	96.8%	2.6%	0.6%
Ice type beverage	98.2%	1.5%	0.2%
Distilled drinks	91.1%	7.2%	1.6%

*EBD: Episodic Binge Drinking

It was verified that the drink used with greater frequency and intensity by Brazilian university students in situations of binge is beer, in which 12.4% stated that they drank five to ten doses in a single occasion and 4.1% stated that drank up to 11 servings. Second in the EBD is the use of distilled beverages.

The following is the association between variables, using the Person's X2 test. The results that presented significant relevance were highlighted, as can be seen in Table 4.

The data corroborate previous findings, as we saw above, in which men considered to be in a EBD pattern (31.7%) more than women.

The age groups that are most recognized in the pattern of EBD consumption are the youngest, in the age groups of 19 to 24 years (26.4%) and 25 to 30 (26.6%) together correspond to half of the sample. Regarding marital status, unmarried college students presented the highest incidence of this behavior (26.1%), a proportion higher than the 15% of married women affirmed that they considered EBD. As for the dwelling, the participants who live with friends or alone had a higher correlation (32.4 and 30.4%, respectively) of use in this pattern.

It is also interesting to highlight the relationship with religion, and students who consider themselves agnostic / atheist / non-religious have a higher incidence of EBD(33.5%).

The areas of knowledge of Engineering and Applied Social Sciences presented the highest prevalence in this category: 30% and 29.6% respectively.

Table 4 – Correlations between profile data and EBD consumption among university students. Brazil, 2016

	Variable	N.	Do you consider yourself a Binge Drinker?		Percentual "Binge"	X ^{2*} e DF	Statistical Significance
			NO	YES			
Sex	Male	1480	1192	288	31.7%	X ^{2*} =52.1 df=1	p = 0.000
	Female	1161	793	368	19.5%		
Age (years)	Less than or equal to 18	332	267	65	19.6%	X ^{2*} =19.49 df=5	p = 0.002
	19 to 24	1745	1284	461	26.4%		
	25 to 30	406	298	108	26.6%		
	31 to 35	82	68	14	17.1%		
	36 to 40	34	29	5	14.7%		
	41 or more	42	39	3	7.1%		
Marital Status	Single	2351	1738	613	26.1%	X ^{2*} =17.9 df=3	p = 0.000
	Married/ Stable Union	264	224	40	15.2%		
	Divorced/ Separated	22	19	3	13.6%		
	Widow	4	4	0	0.0%		
Paid Activity	No	1385	1050	335	24.2%	X ^{2*} =0.6 df=1	p = 0.41
	Yes	1256	935	321	25.6%		
Home	With parents and / or other relatives	612	414	198	32.4%	X ^{2*} =43.8 df=5	p = 0.000
	With friends / colleagues	299	208	91	30.4%		
	Alone	1502	1166	336	22.4%		
	With spouse	20	17	3	15.0%		
	With boyfriend	200	173	27	13.5%		
	Others	8	7	1	12.5%		
Religion	Agnostic / Atheist / Non-Religious	928	617	311	33.5%	X ^{2*} =75.9 df=6	p = 0.000
	Catholic	830	647	183	22.0%		
	Evangelical / Protestant	405	350	55	13.6%		
	Spiritist	275	224	51	18.5%		
	Deist (Believes in God)	88	61	27	30.7%		
	Others	84	62	22	26.2%		
	Umbandist / Candomblé	31	24	7	22.6%		
Large Knowledge Area	Applied Social Sciences	557	390	167	30.0%	X ^{2*} =27.0 df=8	p = 0.001
	Engineering	570	401	169	29.6%		
	Human Sciences	250	193	57	22.8%		
	Health Sciences	152	119	33	21.7%		
	Exact and Earth Sciences	298	234	64	21.5%		
	Others	150	118	32	21.3%		
	Business, Economics and Administration	157	125	32	20.4%		
	Linguistics, Literature and Arts	365	291	74	20.3%		
	biological Sciences	142	114	28	19.7%		
Total of subjects							2641

*X²:Chi-square test; †Degrees of freedom

The most common places in which college students usually consume alcoholic beverages were found, establishing a comparison with the self-perception of this pattern of consumption (Figure 1). It should be noted that the number of those who stated that the pattern

of consumption occurs in the University Campus or in the Campus Surroundings, or even in parties in general, spaces with a strong relation with the behavior of binge drinking. Need to consider that respondents could report more than one response.

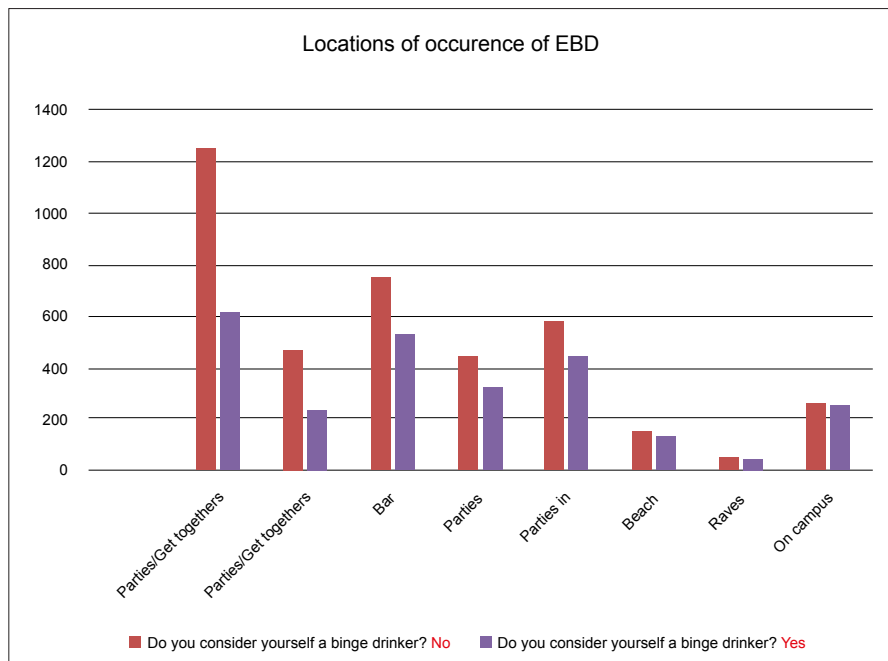


Figure 1 – Places of greatest occurrence of Episodic Binge Drinking among university students. Brazil, 2016

Other important information concerns the perception of the risk of EBD behavior 48.7% answered that this pattern of consumption is high risk for health, 7.4% said that it is medium risk and 43.9% said that it is low risk to health. It should be stated that this question was asked at the end of the questionnaire in which the students had already received some information about EBD behavior.

Discussion

Comparing data from the literature of reference in the area with the results of this research can confirm that the behavior of episodic binge drinking or binge drinking has been very common in Brazilian university students, as can be seen in other countries such as the USA^(4,9,12).

It is also confirmed that men drink more in binge than women, corroborating with the results of national surveys^(1,19) and other studies⁽⁸⁾, although there is an indicative of a progressive increase in this behavior among women⁽¹⁹⁾.

It should be noted that in this study the respondents demonstrated that they did not know the concept of EBD or binge drinking, since 96.4% had never heard of this pattern of consumption, although 24.8% considered themselves to be an episodic binge drinker after explained its meaning, and that 85.80% replied they had already had occasion of an episodic binge drinking experience. This consideration reminds us of the need to problematize this topic with university students, since in the final questions of the instrument used in the present research (after having some information about what this

consumption pattern is), 51.4% stated that this type of consumption alcoholic is of medium or low risk to health. University students underestimate the negative effects of alcohol and, in particular, episodic binge drinking, which consequently leads them to an easy exposure of situations of risks and damages to their health⁽⁹⁾.

Although EBD research is significant, few researchers have focused specifically on how college students think about this pattern of consumption. Increasing the understanding of how college students approach and define alcohol use is important for increasing preventive techniques and actions⁽¹⁸⁾.

In the I National Survey on the use of alcohol, tobacco and other drugs among university students of the 27 Brazilian Capitals, a high consumption among Exact Sciences students with EBD behavior (34.7%) was identified⁽¹⁾. In this study, the students were classified in a more detailed way in comparison to the mentioned Survey, which used only the areas of study (Biological, Human and Exact). However, the results were similar in terms of the incidence of this behavior, since in the present study, the Engenharias obtained a prevalence in the students' perception of EBD (30%), followed by Applied Social Sciences (29.8%) and thirdly the Exact and Earth Sciences (22,8%). It can be affirmed that these data can have influence with the gender issue, considering that the EBD is more common in men and in the courses of engineering and of the Exact Sciences there is a masculine predominance.

Another important data to be discussed in this article is the frequency of alcoholic beverage intake. This study revealed that participants who practice EBD use beer more, in which 16.5% reported drinking more than

five doses on a single occasion. This can be the most consumed drink due to having a more affordable price, much advertising is still allowed on it, besides being culturally very well accepted in our country. Secondly, distillates are the university's favorite drink for practicing EBD (8.8%). These data are similar to those of II LENAD(19) in which they report that ingestion of beer and distillates in adults is the favorite when consumption is high.

The student profile most at risk of practicing EBD is that of men, up to 24 years old, single, living with friends or alone and who are agnostic / atheist / non-religious. Those who consume alcohol in the vicinity of the university have a greater risk of taking in binge. These are important indicators for the formulation of prevention and harm reduction projects for episodic binge drinking.

This research went beyond taking into account repetition of this frequency (Table 2), since it is a fact that the NIAA itself does not provide⁽⁶⁾. Of those who claimed to have practiced EBD 75.8% answered that they repeated this consumption. The risks of triggering alcohol dependence and suffering the negative effects of alcohol increase as the frequency of EBD intoxication is repeated⁽⁴⁾.

The most protective factors that appeared were being older, being married, and living with a partner or spouse. The practice of religion, especially evangelicals and spiritists, is also a factor in protecting alcohol abuse among students, as well as other studies related to drug use behaviors⁽²¹⁾.

Conclusion

This research reinforced the findings that Brazilian university students have a significant EBD practice and a significant portion has a low perception of the risks involved in this behavior. Due to the popularization of the term binge drinking by researchers in the 1990s the term has also become popular in the media, but there is little concern about the perceptions of students practicing EBD, especially regarding definition of the term. This research demonstrates how much we still need to advance relative to university students' knowledge about the behavior of EBD.

Data has shown that college students are a vulnerable population due to the high consumption and frequency of alcohol use. This study demonstrated that the amounts of alcoholic beverages that this population ingest are high compared to other social categories. The doses consumed by these students and at that frequency can cause serious damage to health in the medium and long term.

It is noticed that in universities that this behavior is very stimulated in the advertisements of university

parties, many of them in "open bar" style and in specific shows to this public, besides the own university trotters, that introduce the freshmen in what they usually call "Ethyl circuit", treating the question of the use of alcohol as something naturalized and as part of the university being. Entrepreneurs themselves exploit this tendency by opening many bars around university campuses, with more affordable drink promotions and, therefore, consumed in greater quantity, facilitating access to alcohol and EBD practice, further strengthening need for greater attention to these students. This study shows that it is necessary to have a close look at the university population regarding the consequences of the EBD, because when they look for the health devices these consequences may already be compromising the life of this student in a more serious way.

This study serves as a reinforcement for the Brazilian authorities, rectorships and student assistance departments of universities to develop preventive and harm reduction policies for episodic binge drinking in university settings.


This study had as one of its limitations to use a questionnaire of its own and not one already validated by other surveys, which would allow a greater comparability of the data. It is necessary to develop more researches and studies, which complement the data, mainly with more qualitative bias, aiming to unveil the meanings of the EBD among university students, since the perception of risks in this research was raised from data only quantitative, which loses the richness of perceptual content.

Referências

1. Andrade AG, Duarte PCAV, Oliveira LG. I levantamento nacional sobre o uso de álcool, tabaco e outras drogas entre universitários das 27 capitais brasileiras. Brasília: Secretaria Nacional de Políticas sobre Drogas; 2010.
2. Cardoso FM, Barbosa HA, Costa FM da, Vieira MA, Caldeira AP. Fatores associados à prática do binge drinking entre estudantes da área da saúde. Rev CEFAC. [Internet]. 2015 Apr [cited 2017 Mar7] ;17(2):475-84. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S151618462015000200475&Ing=en. <http://dx.doi.org/10.1590/1982-0216201589143>
3. Hingson RW, Zha W. Age of Drinking Onset, Alcohol Use Disorders, Frequent Heavy Drinking, and Unintentionally Injuring Oneself and Others After Drinking. Pediatrics. 2009;123(6):1477-84.
4. Peuker AC, Fogaça J, Bizarro L. Expectativas e beber problemático entre universitários. Psicologia: teoria e pesquisa. 2006;22(2):193-200.
5. Hustad JT, Pearson MR, Neighbors C, Borsari B. The role of alcohol perceptions as mediators between personality and alcohol-related outcomes among

- incoming college-student drinkers. *Psychol Addict Behav.* 2014;28(2):336.
6. Knight R, Norman P. Impact of brief self-affirmation manipulations on university students' reactions to risk information about binge drinking. *Br J Health Psychol.* 2016 Sep;21(3):570-83. doi: 10.1111/bjhp.12186.
7. Book IIB. Practical guides for alcohol policy and prevention approaches. Module. 2005;11:101-3.
8. Silveira CM, Silveira CC, Silva JGd, Silveira LM, Andrade AGd, Andrade LHSgd. Epidemiologia do beber pesado e beber pesado episódico no Brasil: uma revisão sistemática da literatura. *Rev Psiquiatr Clín.* 2008;35(suppl 1):31-8.
9. De Andrade AG, Silveira CM. Problemas comportamentais ligados ao uso de álcool. *Rev USP.* 2013(96):7-22.
10. Floripes TMF. Beber se embriagando (binge drinking): estudo de uma população de estudantes universitários que fazem uso do álcool de risco. [dissertação]. Botucatu (SP): Universidade Estadual Paulista Júlio de Mesquita Filho; 2008. 102 p.
11. Davoren MP, Demant J, Shiely F, Perry IJ. Alcohol consumption among university students in Ireland and the United Kingdom from 2002 to 2014: a systematic review. *BMC Public Health.* 2016;16(1):173.
12. Wechsler H, Nelson TF. Binge drinking and the American college students: What's five drinks? *Psychol Addict Behav.* 2001;15(4):287.
13. National Advisory Council on Alcohol Abuse and Alcoholism (NIAAA). Consideration of Recommendation on Definition of *Binge Drinking*. [Internet]. Summary of the 105th Meeting February 4-5, 2004 [Acesso 19 abr 2017]. Disponível em: https://pubs.niaaa.nih.gov/publications/StrategicPlan/NIAAASTRATEGICPLAN.htm#Drinking_Patterns
14. Courtney KE, Polich J. Binge drinking in young adults: Data, definitions, and determinants. *Psychological bulletin.* 2009;135(1):142.
15. Cavariani MB, de Oliveira JB, Kerr-Corrêa F, Lima MCP. Expectativas positivas com o uso de álcool e o beber se embriagando: diferenças de gênero em estudo do Projeto GENACIS, São Paulo, Brasil. *Cad Saúde Pública.* 2012:1394-404.
16. Naimi TS, Brewer RD, Mokdad A, Denny C, Serdula MK, Marks JS. Binge drinking among US adults. *JAMA.* 2003;289(1):70-5.
17. Arantes LFR. Binge drinking: um estudo bibliométrico (1999-2010) dos artigos publicados na base de dados SciELO. *Estud Psicol. (Campinas).* 2012:253-7.
18. Clinkinbeard SS, Johnson MA. Perceptions and practices of student binge drinking: an observational study of residential college students. *Journal of drug education.* 2013;43(4):30119.
19. Laranjeira R, Madruga C, Ribeiro M, Pinsky I, CaetanoR, Mitsuhiro S. II LENAD–Levantamento Nacional de Álcool e Drogas. São Paulo: Instituto Nacional de Ciência e Tecnologia para Políticas Públicas do Álcool e Outras Drogas; Universidade Federal de São Paulo; 2012.
20. Silveira CM, Siu ER, Wang Y-P, Viana MC, Andrade AGd, Andrade LH. Gender differences in drinking patterns and alcohol-related problems in a community sample in São Paulo, Brazil. *Clinics.* 2012;67(3):205-12.
21. Sanchez ZVDM, Nappo SA. A religiosidade, a espiritualidade e o consumo de drogas. *Rev Psiquiatr Clín.* 2007;34(suppl 1):73-81. doi:<http://dx.doi.org/10.1590/S0101-60832007000700010>.

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