Original Article

# Consumption of alcoholic beverages and practice of binge drinking among hairdressers

Consumo de bebidas alcoólicas e prática do *binge drinking* entre cabeleireiros

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**ABSTRACT**

**Objective:** to verify the consumption of alcoholic beverages and the practice of binge drinking among hairdressers. **Methods:** cross-sectional study conducted with 51 beauty salon professionals. We used a questionnaire with socio-demographic characteristics and about the practices of consumption of alcoholic beverages. For the identification of the use in binge drinking, the key question was guided. Descriptive and inferential statistical analysis was performed. **Results:** 84.3% were alcohol consumers, 51.0% had between one and ten years of consumption and 72.5% consumed beer. In relation to the use in binging, 37.3% of the sample made occasional use of risk, at least once a month. The highest rates of binge drinking were related to male gender, single and young and the evangelical religion was associated with a lower or no consumption of alcoholic beverages. **Conclusion:** the data pointed to alcohol consumption and frequent binge use related to likely alcohol dependence.
**Descriptors:** Alcoholism; Binge Drinking; Beauty and Aesthetics Centers; Alcohol-Induced Disorders; Substance-Related Disorders.

**RESUMO**

**Objetivo:** verificar o consumo de bebidas alcóolicas e a prática do *binge drinking* entre os cabeleireiros. **Métodos:** estudo transversal realizado com 51 profissionais de salões de beleza. Utilizou-se de um questionário com características sociodemográficas e sobre as práticas do consumo de bebidas alcoólicas. Para a identificação do uso em *binge drinking,* pautou-se a questão-chave. Realizou-se a análise estatística descritiva e inferencial. **Resultados:** 84,3% eram consumidores de álcool, 51,0% tinham de um a dez anos de consumo e 72,5% consumiam a cerveja. Em relação ao uso em *binge,* 37,3% da amostra faziam uso ocasional de risco, pelo menos, uma vez ao mês. Os maiores índices de *binge drinking* estavam relacionados ao gênero masculino, aos solteiros e jovens e a religião evangélica foi associada a um menor ou nenhum consumo de bebidas alcoólicas. **Conclusão:** os dados apontaram o consumo alcoólico e o uso em *binge* frequente relacionados à provável dependência alcoólica.
**Descritores:** Alcoolismo; Bebedeira; Centros de Embelezamento e Estética; Transtornos Induzidos por Álcool; Transtornos Relacionados ao Uso de Substâncias.

## Introduction

Among the patterns of consumption, heavy episodic drinking or other patterns of alcohol consumption, such as heavy drinking, also known as occasional use of risk, internationally known as binge drinking, which is characterized by the consumption of four doses or more for women and five doses or more for men on the same occasion. It is emphasized that the standard dose contains approximately ten to 12g of pure alcohol, equivalent to a beer can (330ml), distillate dose (30ml) or wine glass (100ml). However, such definition is refutable because such concept may be influenced by the cultural and pharmacokinetic aspects of alcohol[1].

Thus, when evaluating the trend of alcohol abuse, according to the World Health Organization (WHO), a decrease in the frequency of heavy episodic drinking was noted at a global level, since in the year 2000 it corresponded to 22.6% and in 2016 it increased to 18.2% in the population over 15 years old. In Brazil, this pattern increased from 12.7% in 2010 to 19.4% in 2016[2].

Still regarding the Brazilian territory, when analyzing the consumption trend between 2006 and 2013, the Surveillance of Risk Factors and Protection for Chronic Diseases by Telephone Inquiry, which evaluated the adult population over 18 years, showed that 15.6% in 2006 and 16.4% in 2013 made occasional use of risk[3]. According to the III National Survey on Drug Use, binge use was 16.5%, corresponding to 25 million inhabitants of the general population. This said, the study instigated a significant change in the patterns of alcohol consumption in Brazil[4].

n view of these circumstances and reflecting on the significant portion of the adult and working class, the hairdressers stand out in this segment, workers who have an exhaustive workload because, due to the increase in the purchasing power of the population and the influence of the media, human beings have been inspired to be concerned with beauty, body care and, thus, beauty professionals are needed to meet the demands[5]. Thus, in the city of Oiapoque, most of them are located in the city center, with easy access to bars and liquor stores, favoring the consumption of these substances, being, many times, this use of risk.

Thus, when considering the absence of studies in the Brazilian literature about the consumption of alcohol and the practice of binge drinking among the hairdressers of beauty and esthetics centers, as well as the inexistence of data in the city of Oiapoque together with this professional class, which presents peculiarities related to working conditions, such as excessive workload, growth of this working class without professional qualification, exposure of clients and workers to occupational risks, including infectious diseases[5], In addition to the lack of health care for these workers, the need arose to fill gaps on the subject, seeking the dissemination of the development of prevention strategies on the problematic use of alcohol among the public researched.

Hus, the training of health professionals, especially nurses, is essential for the early detection of risky consumption of alcohol, in addition to the implementation of techniques aimed at reducing consumption and intervening in the cases identified, as well as strategies and interventions more consistent with alcohol users so that, in this way, effective care programs and health policies are developed[6].

Therefore, the objective was to verify the consumption of alcoholic beverages and the practice of binge drinking among hairdressers.

## Methods

Cross-sectional study, with non-probabilistic sample, carried out in 31 beauty salons. It is noteworthy that, in each establishment, there were from one to three professionals. Due to the particularity of the city, there are no large beautification and aesthetic centers and this labor class did not have an entity, association or competent body to represent them, therefore, it was not possible to estimate the exact number of people of such profession in Oiapoque. Therefore, the Snowball Sampling technique was used to search for those who were in the city center.

The initial participants of the study indicated new participants who, in turn, designated new possible participants and, thus, successively, until the proposed objective was achieved. Therefore, the sampling technique was adopted, which used the reference chains. Thus, the key informants were located in the halls located in the central area, which named the furthest away and, in the sequence, the visits were made to the halls located in the extreme north of Amapá, Brazil, on the Franco-Brazilian border, from July 2018 to June 2019.

Among the inclusion criteria, it was established that: professionals over eighteen years old and of both genders, who had been working for more than a year in beauty salons. Excluded from the sample were individuals who, at the time of collection, showed changes in visible behaviors or were intoxicated.

For the data collection, the researchers contacted directly the hairdressers/dressers in beauty salons, in order to explain about the importance of the data survey, reason for the professionals to be represented by class or labor entity in the city. The questionnaire was applied about the socio-demographic characteristics (gender, age, education, race/color, marital status, family income, religion), alcohol consumption practices (consumers or not, time of consumption, frequency of consumption, type of beverage, number of doses) and the identification of binge drinking use: the instrument called key question of this survey. The approach took place in a cautious and discreet way, in reserved spaces, inside the halls, in order to ensure the privacy and secrecy of the answers given.

The key question was directed at the amount of times hairdressers have used a binge in the last year. The key question was first proposed in the late 1990s and had as a basic question Have you ever had drinking problem?[7], which, in direct translation, would be: "Have you ever had problems with alcoholic beverages? Translated and validated in a study conducted in Brazil in 2017, which named the single question as a key issue, whose final version, in Portuguese, after adaptation and cultural validation, denoted: "How many times, in the last 12 months, have you drunk X doses or more of alcoholic beverages in one day?". It is also explained that this question presented satisfactory agreement among the judges on the content and psychometric performance[8]. It is a practical tool, with criteria validity and a suitable strategy to be used in the Brazilian Primary Health Care segment for screening the use of alcohol risk[9].

The data was tabulated in Microsoft Excel® spreadsheets. The statistical analysis consisted in describing the sample in absolute and relative frequencies. For the analysis of normality of the samples, the Kolmogorov-Smirnov test was applied. For the evaluation of the homogeneity of the variances, the Levene test was adopted and for the inferential analysis, the Mann-Whitney U test was used for the two independent samples and the Kruskal Wallis test for the comparison of three or more groups. Dunn's test was applied after rejection of the null hypothesis of the Kruskal Wallis test. For the correlation of socio-demographic variables with the binge, the Spearman correlation test was used.

This research was conducted in full compliance with the guidelines and procedures required for research involving human beings, obtaining the approval of the Ethics and Research Committee of the Federal University of Amapá according to Opinion No. 2,682,565/2018 and Certificate of Presentation for Ethical Appreciation No. 87074418.9.0000.0003.

## Results

Among the 51 participants in this study, the majority were male (51.0%), 68.6% were between 21 and 40 years old, with high school education (49.0%), and 84.3% were brown or black. Regarding marital status and religion, 41.2% were single and 49.9% declared themselves evangelical. It is pointed out for the subsequent analyses that nine participants (17.6%) were considered, in this study, as not practicing a religion. The monthly family income most affected by most hairdressers included in this study, 21 (41.2%), was up to R$ 1,164.00.

Reports on alcohol consumption data showed

that 43 (84.3%) were consumers of alcoholic beverages and, of these, 26 (51.0%) had a consumption time of one to ten years. In general, the most reported frequency was rarely, by 20 (39.2%) participants, followed by the weekly frequency, by 19 (37.3%) individuals. Among the most ingested beverages, seven were the most cited by the participants of the study, being beer the most mentioned (72.5%). Regarding the number of doses, six (11.8%), in the case of women, drank the permissible amount and, alarmingly, 21 (41.2%) participants consumed more than 20 doses at the same time (Table 1).

**Table 1** – Characterization of alcohol consumption of hairdressers. Oiapoque, AP, Brazil, 2019

| Variable | Gender | | |
|---|---|---|---|
| | Male n (%) | Female n (%) | Total n (%) |
| Consumption of alcoholic beverages | | | |
| Consumers | 24 (92.3) | 19 (76.0) | 43 (84.3) |
| Non-consumers | 2 (7.7) | 6 (24.0) | 8 (15.7) |
| Alcohol consumer time (years) | | | |
| 1 - 5 | 9 (34.6) | 7 (28.0) | 16 (31.4) |
| 6 - 10 | 8 (30.8) | 2 (8.0) | 10 (19.6) |
| 11 - 15 | 4 (15.4) | 5 (20.0) | 9 (17.6) |
| 16 - 20 | 2 (7.7) | 3 (12.0) | 5 (9.8) |
| 21 – 25 | 1 (3.8) | 1 (4.0) | 2 (3.9) |
| > 25 | - | 1 (4.0) | 1 (2.0) |
| Frequency of alcohol consumption | | | |
| Rarely | 7 (26.9) | 13 (52.0) | 20 (39.2) |
| Once a month | 1 (3.8) | 1 (4.0) | 2 (3.9) |
| Weekly | 14 (53.8) | 5 (20.0) | 19 (37.3) |
| Almost daily | 2 (7.7) | - | 2 (3.9) |
| Most consumed type of beverage | | | |
| Beer | 23 (88.5) | 14 (56.0) | 37 (72.5) |
| Wine | 16 (61.5) | 11 (44.0) | 27 (52.9) |
| Cachaça (sugar cane brandy) | 12 (46.2) | 9 (36.0) | 21 (41.2) |
| Whisky | 14 (53.8) | 4 (16.0) | 18 (35.3) |
| Vodka | 13 (50.0) | 5 (20.0) | 18 (35.3) |
| Caxiri or caxixi* | 2 (7.7) | - | 2 (3.9) |
| Carbonated ice drink | 10 (38.5) | 10 (40.0) | 20 (39.2) |
| Other type of drink | 6 (23.1) | - | 6 (11.8) |
| Number of doses every time they drink | | | |
| Do not consume (dose) | 2 (7.7) | 6 (24.0) | 8 (15.7) |
| 1 - 4 | - | 6 (24.0) | 6 (11.8) |
| 5 - 9 | 1 (3.8) | 2 (8.0) | 3 (5.9) |
| 10 - 14 | 3 (11.5) | 6 (24.0) | 9 (17.6) |
| 15 - 19 | 2 (7.7) | 2 (8.0) | 4 (7.8) |
| > 20 | 18 (69.2) | 3 (12.0) | 21 (41.2) |

*Caxiri or caxixi: fermented drink in clay pots, made from cassava, boiled corn or fermented fruit, and from the essentially feminine and traditional production of indigenous communities

Regarding the practice of binge drinking among hairdressers, in the female gender, it was found that 24.0% did not drink, 16.0% used in binge from one to three times a year and 8.0%, more than 15 times a year. Regarding the male gender, 7.7% did not drink, nobody used in binge from one to three times a year and 65.5%, more than 15 times a year. Regarding the total sample, it was proved that 15.7% did not drink, 7.8% did not use in binge from one to three times a year and 37.3%, more than 15 times a year.

Table 2 shows statistical differences in the medians of binge use between genders, which was 17.0 for men and 4.0 for women, suggesting that male consumption was considerably higher than female (p≤0.001). When it was analyzed whether the marital status was related to the binge, it was observed that the median frequency of alcohol intake of participants who had no partners (15.0) was statistically significant and higher than the average of times consumed in the previous year than that of participants who had a partner (a) (8.0).

The correlation analysis was performed between the variables age, performance time in the hairdresser's category and again the family income (this time, relating the income values in an increasing way). In relation to the binge, when applying the Spearman correlation test, it was found the correlation (p=0.025) between age and the number of times that, in the previous year, men consumed five doses and women, four or more doses of alcoholic beverages on the same day. The negative Spearman's Root value obtained (-0.314) indicated the inverse correlation, that is, with the increase in age, consumption decreased, thus, younger hairdressers showed a greater tendency to consume than those with more advanced ages (Table 2).

The Kruskal-Wallis (K-W) test, with Dunn's test as post hoc, was used to determine the behavior of the binge, considering the variable religion, in which three treatments were established: Evangelicals, Catholics and a category consisting of "non-practitioners" plus an atheist. Thus, there were no statistical differences

between the median of the binge of Catholics (14.5), when compared to the median of Evangelicals (10.0), being the difference in the sum of ranks (DSR) determined by the post hoc equal to 8.9 and the binge median of non-practitioners, including the atheist (18.0), with DSR= -4.8. The values of the evangelical binge median were the lowest, suggesting that these were the ones that consumed less alcohol and that differed statistically (p=0.023 and DSR= -13.8) from the median of non-practitioners and atheists, who presented the highest value, proposing that the latter had greater consumption.

**Table 2** – Statistical analysis of the relationship between socio-demographic variables and the key issue. Oiapoque, AP, Brazil, 2019

| Variables | Median | Statistical test | p |
|---|---|---|---|
| Gender | | | |
| Male | 17.0* | U=108.0 | ≤0.001 |
| Female | 4.0 | | |
| Education | | | |
| Basic education | 14.0 | U=279.5 | 0.638 |
| Highschool and higher education | 12.0 | | |
| Marital status | | | |
| With partner | 8.0* | U=3204.5 | 0.024 |
| Without partner | 15.0 | | |
| Family income | | | |
| Lower | 13.0 | U=309.5 | 0.863 |
| Higher | 12.0 | | |
| Religion | | | |
| Evangelicals | 10.0[a] | K-W=7.547 | 0.023 |
| Catholics | 14.5[a,b] | | |
| Non-practitioners and the atheist | 18.0[b] | | |
| Correlation with the binge | | | |
| Age | 29.0 | Rô= -0.314 | 0.025 |
| Time in the category | 9.0 | Rô= -0.133 | 0.352 |
| Family income | 4.076.00 | Rô= -0.005 | 0.971 |

*Statistical differences; a,b,cSystem of letters for the comparison of more than two means whose different letters represent statistical differences between the medians. K-W Kruskal-Wallis value

## Discussion

Despite having a small sample, being the greatest limitation of this survey, however, it had significance, since it collected the socio-demographic characteristics, as well as described the consumption of alcoholic beverages and the practice of binge drinking among hairdressers. It was observed that these variables corroborate other studies previously carried out, however, due to the absence of studies with hairdressers, the comparative analysis was carried out with the general population or other population niches, based on the pre-existing literature.

Thus, this research is important in the field of Nursing, mental health and public health, in order to promote actions and strategies that prevent the abusive use of alcohol, even if it is an occasional consumption of risk, in order to reduce the practice and avoid future problematic consumptions that may result in alcoholic dependency. Furthermore, it fosters the practice of Nursing within the context of additions, playing an important role in the detection, monitoring and referrals necessary before people with problematic use of alcohol, in order to reduce risk/harmful consumption, avoiding morbidities and related problems in the long term, in this study, high rates of alcohol consumption and binge drinking in hairdressers were identified, besides that the highest rates of binge drinking were related to male gender, singles and young people, and the evangelical religion was associated to a lower or no consumption of alcoholic beverages.

Thus, findings that resemble the study data showed that 78.0% of workers consumed alcoholic beverages in the last 12 months, 82.0% of public maintenance workers made use of binging, men consumed alcohol more frequently (63.0% binge use) and 44.0%, abusive consumption or likely dependence[10]. A survey with Brazilian students about heavy episodic drinking showed that 31.7% of men, compared to 19.5% of women, used binge drink, with beer being the most used beverage[11].

Still regarding the use of alcohol among stu-

dents, 89.2% stated the consumption in the last three months surveyed and 51.6% stated the use in binging, being this practice associated with greater chances of problems and consequences arising from the use of alcoholic beverages[12]. Another survey, with 182 Nursing students, showed that 48.9% practiced binge use, being associated with frequency and dose of consumption[13].

Regarding the variables that gave association, a study that analyzed the sociodemographic factors associated to the use of alcohol, according to the gender, in Brazilian territory, showed that the highest frequency of excessive episodic use of alcohol was 13.7%, being 21.6% among men and 6.6% among women, with higher prevalence in people between 25 and 34 years old and single, data concordant with those of this research[14]. Results about the profile of alcohol consumption and occasional use of risk among university students showed that 51.6% made use in binge, being associated with male gender and being single, results that corroborate the public investigated in this survey[15].

Thus, the existence of alcohol consumption among the young public was verified from the studies listed. It is speculated that the consumption of alcohol and the practice of binge drinking are greater among men, due to cultural issues and ancestry, in which the consumption was more easily accepted and, when it comes to risk consumption, this becomes more evident, even due to masculinity issues, presenting a practice of alcohol consumption higher than among women. As for singles and young people, this is due to freedom, the fact of meeting friends, attending parties and places, with the intention of leisure and fun, more often and thus becoming more vulnerable to risk consumption, data reflected from related studies.

When comparing alcohol consumption with other population niches, in the municipality of Oiapoque, a place that stands out for its social and economic vulnerability, a survey with *mototaxi* drivers, which observed a trend between naturalness and risk consumption, pointed out that 48.5% consumed alcoholic beverages, 16.2% made use of risk, 7.4% harmful use and 1.5% probable dependence, and the amount of doses greater than five doses, on the same occasion, increased by 20 times the chance of triggering a problematic consumption[16].

Another survey, also carried out in Oiapoque with servers of an educational institution, showed that 24.0% of the workers made use of risk and 2.0%, harmful consumption, in addition to scoring conditions of inadequate work, campus under construction, that most of the servers are from other states, diving into other realities of life, lack of leisure options, being the drink the main source of fun and thus a risk factor for problematic consumption[17].

An investigation carried out with alternative transportation drivers, at the Franco-Brazilian border, showed that 100.0% of the interviewees consumed alcoholic beverages, 17.9% made the occasional use, 53.8% the abusive use and 28.2% had indicative of probable dependence, thus pointing out the vulnerability of the drivers and reflecting, thus, the need to instigate health professionals, among them, the nurses, to develop educational actions with the purpose of reducing consumption, morbidity and mortality and accidents caused by the use of alcohol[18].

A variable that presented a statistical relation and deserves reflection was religion, showing that being evangelical has less chances of alcohol consumption, being, therefore, a protective factor, being the religiosity associated to the non-consumption in binge, that is, the practice of the religiosity favors a self-control posture regarding the use of alcohol. However, studies are preliminary and there is a need for more research with better sedimentation and clarification of these associations[19].

Finally, spirituality/religiosity shows itself as a relevant variable in the field of drug addiction, being a preventive, protective and curative factor, showing scientific evidence in a more positive than negative relationship, also pointing out the need for more studies in this context, focusing on longitudinal studies and the deepening of the theme for more subsidies[20].

Therefore, based on the damages caused by alcohol abuse, in the general scope, the importance of developing educational strategies, guidelines and clarifications about the damages caused by the use of alcoholic beverages is overestimated[16-18], even to the individuals who do not use the binge, so that discussions can be stimulated together with the competent agencies for the dissemination and formation of knowledge with this working class, thus making it impossible to get sick and the appearance of cases that result in alcoholic dependence. In this context, Nursing, which occupies a privileged position in the process of early detection, health promotion, prevention of illnesses and rehabilitation measures, should be highlighted.

## Conclusion

The consumption of alcohol among hairdressers was considered high and the practice of binge drinking was frequent, that is, those who consumed alcoholic beverages made occasional use of risk, given worrying and possibly a condition for likely alcoholic dependence. The risk of high alcohol consumption was related to the male gender, being single or not having a partner and being young. The fact of belonging to the evangelical religion was associated with a minor or no consumption of alcoholic beverages.

## Collaborations

Castelo Branco FMF contributed in the analysis and interpretation of the data, writing of the article, relevant critical review of the intellectual content and final approval of the version to be published. Sousa GT, Marques NQS, Moraes AAS and Dutok-Sánchez CM contributed in the conception of the project, data collection and analysis and writing of the article. Trindade FR and Branco Neto TC contributed in the interpretation of the data, relevant critical review of the intellectual content and final approval of the version to be published.

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