


Alcohol consumption by health professionals from a reference hospital in COVID-19 care

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Objective: to evaluate the pattern of alcohol consumption among health professionals. **Method:** a cross-sectional, descriptive and quantitative study, carried out in a public hospital in the state of Minas Gerais. **Results:** a total of 129 health professionals were interviewed, 83.5% being female, aged between 30 and 49 years old (80.2%), graduates (39%), allocated in the intensive care center (34.4%) and with a workload greater than 44 hours (42%). Alcohol consumption was found in 59.7% of the participants and beer was the most frequently consumed beverage (49.4%). Among those who started drinking after the pandemic, there was an increase in consumption (11.5%). In the AUDIT score, risk consumption was more frequent among the professionals who have family members with the habit of consuming alcohol ($p < 0.005$) and in those who already drank before the pandemic ($p < 0.001$). **Conclusion:** alcohol consumption is frequent among health professionals and recorded an increase due to the pandemic scenario. Screening the consumption of alcoholic beverages allows for educational actions and aims at promoting healthy habits.

Descriptors: Alcohol Drinking; Alcoholic Beverages; Pandemics; Health Personnel.

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Consumo de álcool por profissionais de saúde em um hospital referência no atendimento da COVID-19

Objetivo: avaliar o padrão de consumo do álcool entre os profissionais de saúde. **Método:** estudo transversal, descritivo, quantitativo, realizado em um hospital público no estado de Minas Gerais. **Resultados:** entrevistados 129 profissionais de saúde, sendo 83,5% mulheres, com idade entre 30 e 49 anos (80,2%), pós-graduação (39%), alocadas no centro de terapia intensiva (34,4%) e carga horária maior que 44 horas (42%). O consumo de álcool foi de 59,7% entre os participantes e a cerveja a bebida mais consumida (49,4%). Entre os que começaram a beber após a pandemia, houve aumento do consumo (11,5%). Na pontuação do AUDIT, o consumo de risco foi mais frequente entre os profissionais que possuem familiares com o hábito de consumir álcool ($p < 0,005$) e nos que bebiam anteriormente à pandemia da COVID-19 ($p < 0,001$). **Conclusão:** o consumo de álcool é frequente entre os profissionais de saúde e houve aumento da ingestão de álcool devido ao cenário da pandemia. O rastreamento do consumo de bebidas alcólicas permite ações educativas e visa a promoção de hábitos saudáveis.

Descritores: Consumo de Bebidas Alcoólicas; Bebidas Alcoólicas; Pandemia; Pessoal de Saúde.

Consumo de alcohol por profesionales de la salud en un hospital de referencia en el cuidado del COVID-19

Objetivo: evaluar el patrón de consumo de alcohol entre los profesionales de la salud. **Método:** estudio transversal, descriptivo, cuantitativo, realizado en un hospital público del estado de Minas Gerais. **Resultados:** se entrevistó a 129 profesionales de la salud, siendo 83,5% mujeres, con edades entre 30 y 49 años (80,2%), con posgrado (39%), adscriptos en el centro de cuidados intensivos (34,4%) con carga de trabajo superior a 44 horas (42%). El consumo de alcohol fue de 59,7% entre los participantes y la cerveza fue la bebida más consumida (49,4%). Entre los que empezaron a beber después de la pandemia, hubo un aumento en el consumo (11,5%). En el puntaje AUDIT, el consumo de riesgo fue más frecuente entre los profesionales que tenían familiares con el hábito de consumir alcohol ($p < 0,005$) y los que habían bebido con anterioridad a la pandemia ($p < 0,001$). **Conclusión:** el consumo de alcohol es frecuente entre los profesionales de la salud y hubo un aumento en el consumo de alcohol debido al escenario pandémico. El cribado del consumo de bebidas alcohólicas permite realizar acciones educativas y tiene como objetivo promover hábitos saludables.

Descriptorios: Consumo de Bebidas Alcohólicas; Bebidas Alcohólicas; Pandemias; Personal de Salud.

Introduction

The habit of drinking alcoholic beverages is associated with sociocultural issues⁽¹⁻²⁾. Alcohol is a psychoactive substance that can cause dependence over time, and its harmful use generates behavioral and mental disorders, in addition to chronic diseases and injuries. Worldwide, nearly 3 million annual deaths are related to harmful use of alcohol, which represents 5.3% of all deaths⁽¹⁾.

The scenario due to the COVID-19 pandemic has been associated with an increase in the consumption of alcoholic beverages in the general population and studies are beginning to reflect which would be the possible effects of alcohol on physical and mental health during the pandemic and in the long-term⁽³⁻⁴⁾. Global social isolation, human losses and the economic issues that society has been facing act as enhancers to trigger anxiety and depression episodes, and this exerts a significant impact on the amount of alcohol consumed⁽⁴⁾.

The discussion about the impacts caused by harmful use of alcohol in work environments is of paramount importance for managers, as it can affect workers' health, work quality and labor relations, leading to absenteeism and to reduced productivity⁽⁵⁻⁶⁾.

This research aimed at investigating the pattern of alcohol consumption among health workers from a reference hospital in COVID-19 care.

Method

This is a cross-sectional study, of the descriptive-exploratory type and with quantitative approach. It was carried out in a hospital from the municipality of Belo Horizonte, which is a reference in the care of infectious and contagious diseases in the state of Minas Gerais. The institution has 210 health professionals who work in direct patient care and, for sample calculation, a precision of 5% and a confidence level of 95% were considered, which resulted in a total sample of 129 workers.

The data were collected between August and November 2020. A sociodemographic questionnaire and a self-administered questionnaire called Alcohol Use Disorder Identification Test (AUDIT) were used as data collection instruments to verify the pattern of alcohol consumption. AUDIT consists of a test to investigate the pattern of consumption of alcoholic beverages developed by the World Health Organization (WHO) and validated in Brazil to identify levels of alcohol consumption. It consists of 10 questions that allow assessing low-risk use and probable dependence on alcohol, in addition to consumption in the last 12 months, as well as the different levels of alcohol use. An advantage of using AUDIT is that it can be self-applied. Each of the items' answers is scored with a value from 0 to 4, with a final score from 0 to 40 points, grouped into four zones, namely:

zone I – between 0 and 7, which identifies low-risk consumption or abstainers; zone II – between 8 and 15, which indicates risk consumption; zone III – between 16 and 19, which refers to harmful use or high-risk consumption; and zone IV – between 20 and 40, which indicates probable dependence⁽⁷⁾.

Prior contact was made with the professionals from the health units in order to present the research and request that each professional signed the Free and Informed Consent Form (FICF). After this stage, distribution of the data collection instruments was carried out, with collection after being filled-in.

In this study, to assess the risk levels, recoding was performed into three levels, namely: abstainers and those at low risk (1), those at risk (2), and those who made harmful use or who had probable dependence (3).

The eligibility criteria were as follows: being a health professional, over 18 years of age, and working during the data collection period; and, as an exclusion criterion: being employees who were distanced from their work duties during the data collection period.

The STATA software, version 12.0, was used for data analysis. Descriptive analyses of the sociodemographic, occupational and alcohol consumption variables and of the pandemic period were performed. The bivariate data analysis was performed using the Chi-square test to compare the categorical variables referring to AUDIT in relation to sociodemographic information such as: gender, age, marital status, family income, religion, schooling, profession, work shift, workload and sector in which the professionals work. The significance level (p -value) was 0.05 for all the tests. The data collected were stored in a Microsoft Excel® (2016) database.

The research was submitted to the Research Ethics Committee of the Eduardo de Menezes Hospital belonging to the Hospital Foundation of the State of Minas Gerais, following the determinations set forth in Resolution 466/12, of the National Research Ethics Council (*Conselho Nacional de Ética em Pesquisa/Conselho Nacional de Saúde*, CONEP/CNS) and approved under opinion No. 4,177,387.

Results

The sample consisted of 129 health workers. There was majority of female professionals (83.5%), aged between 30 and 49 years old (80.2%), married (58.1%), who professed some religion (90.7%), had higher education (63.3%) or graduate studies (39%), and earned between 3 and 4 minimum wages (48%). Regarding the occupational profile, 34.4% worked in the intensive care center, with a weekly workload between 36 and 40 hours (44.9%) (Table 1).

Table 1 - Sociodemographic characterization of the health professionals from a reference hospital in infectious and contagious diseases. Belo Horizonte, MG, Brazil, 2020

Variables	n	%
Gender		
Female	106	83.5
Male	21	16.5
Age Group (years old)		
18-29	5	5
30-49	81	80.2
50-59	9	8.9
60 or more	6	5.9
Marital Status		
Single	50	38.8
Married	75	58.1
Stable union	4	3.1
Religion		
Yes	117	90.7
No	12	9.3
Schooling		
Technical education	47	36.7
Higher education	81	63.3
Graduate course		
Yes	50	39
No	78	61
Family Income		
1 minimum wage	24	18.4

Variables	n	%
1-2 minimum wages	42	33.6
3-4 minimum wages	59	48
Sector		
ICC*	44	34.4
Clinical hospitalization unit	37	29
Outpatient clinic	12	9.3
Not specified	35	27.3
Weekly workload		
<30h	17	13.1
Between 36h and 40h	58	44.9
>44h	54	42

*ICC = Intensive Care Center

The professional categories were divided into nursing technicians (n=48; 37.8%), nurses (n=28; 22%), physicians (n=9; 7.1%), and pharmacy technicians (n=8; 6.3%); as well as social worker, nutritionist, physiotherapist and psychologist (n=4; 3.1% for each profession), data not presented in Table 1.

Of the interviewees, slightly more than half (n=77; 59.7%) had the habit of consuming alcoholic beverages and, among their family members (n=79), this percentage was 61.2%. Prior to the COVID-19 pandemic, n=58 (45%) were abstainers. Among those who started drinking after the pandemic, there was an increase in consumption (n=14; 11.5%) (Table 2).

Table 2 - Sociodemographic profile and characterization of the health professionals and levels of alcohol consumption (AUDIT*) in a reference hospital in infectious and contagious diseases. Belo Horizonte, MG, Brazil, 2020

Variables	Consumption levels (AUDIT*) [n (%)]			p-value
	Abstainers/ Low risk	Risk use	Harmful use/ Probable dependence	
Gender				
Female	92 (72.4)	13 (10.2)	1 (0.8)	0.147
Male	18 (14.2)	2 (1.6)	1 (0.8)	
Age Group (years old)				
18-29	5 (4.9)	-	-	0.873
30-49	67 (65.7)	13 (12.7)	2 (2)	
50-59	8 (7.8)	1 (1)	-	
60 or more	6 (5.9)	-	-	
Ethnicity/Race				
White	39 (30.9)	7 (5.5)	1 (0.8)	0.342
Black	15 (11.9)	5 (4)	-	
Brown	50 (39.7)	2 (1.6)	1 (0.8)	
Asian	5 (4)	1 (0.8)	-	

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Variables	Consumption levels (AUDIT*) [n (%)]			p-value
	Abstainers/ Low risk	Risk use	Harmful use/ Probable dependence	
Marital Status				0.675
Single	43 (33.3)	5 (3.9)	2 (2)	
Married	65 (50.4)	10 (7.7)	-	
Stable Union	4 (3.1)	-	-	
Religion				0.010 [†]
Yes	101 (78.3)	15 (11.6)	1 (0.8)	
No	11 (8.5)	-	1 (0.8)	
Schooling				0.353
Technical education	41 (32.1)	6 (4.7)	-	
Higher education	70 (19.5)	9 (3.1)	2 (2)	
Family Income				0.381
1 minimum wage	22 (17.8)	1 (0.8)	-	
1-2 minimum wages	37 (29.9)	4 (3.2)	1 (0.8)	
3-4 minimum wages	50 (40.3)	8 (6.4)	1 (0.8)	
Sector				0.039 [†]
Intensive care center	43 (33.6)	-	1 (0.8)	
Clinical hospitalization unit	30 (23.5)	7 (5.4)	-	
Outpatient clinic	10 (7.8)	1 (0.8)	1 (0.8)	
Not specified	28 (21.9)	7 (5.4)	-	
Weekly workload				0.427
≤ 30 hours	14 (10.8)	3 (2.3)	-	
Between 36 and 40 hours	48 (37.2)	9 (7.0)	1 (0.8)	
≥ 44 hours	50 (38.8)	3 (2.3)	1 (0.8)	
Does anyone in your family drink alcoholic beverages?				0.005 [†]
Yes	63 (48.8)	15 (11.6)	1 (0.8)	
No	49 (38.0)	-	1 (0.8)	
Do you drink any alcoholic beverage?				0.004 [†]
Yes	60 (46.5)	15 (11.6)	2 (2)	
No	52 (40.3)	-	-	
Did you drink before the pandemic?‡				0.001 [†]
Yes	54 (41.9)	15 (11.6)	2 (2)	
No	58 (44.9)	-	-	
Did you start or increase consumption during the pandemic?‡				0.025 [†]
Yes	10 (8.3)	3 (2.4)	1 (0.8)	
No	95 (77.8)	12 (9.9)	1 (0.8)	
No	1 (7.1)	2 (14.3)	-	

*AUDIT = Alcohol Use Disorders Identification Test; [†]Chi-square test; [‡]Pandemic = Considering the months between March and November 2020

The most frequently consumed beverages were beer (50%) and wine (21%) (Figure 1).

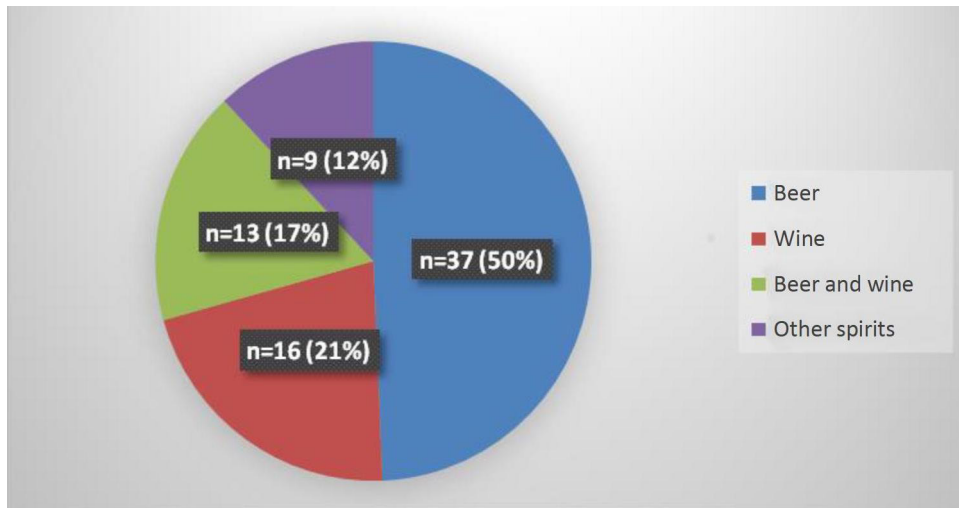


Figure 1 - Types of alcoholic beverages consumed by health professionals from a reference hospital in infectious and contagious diseases. Belo Horizonte, MG, Brazil, 2020

The data in Figure 2 show the consumption frequency of alcoholic beverages among the participants, with 53.6% doing so between 2 and 4 times a month.

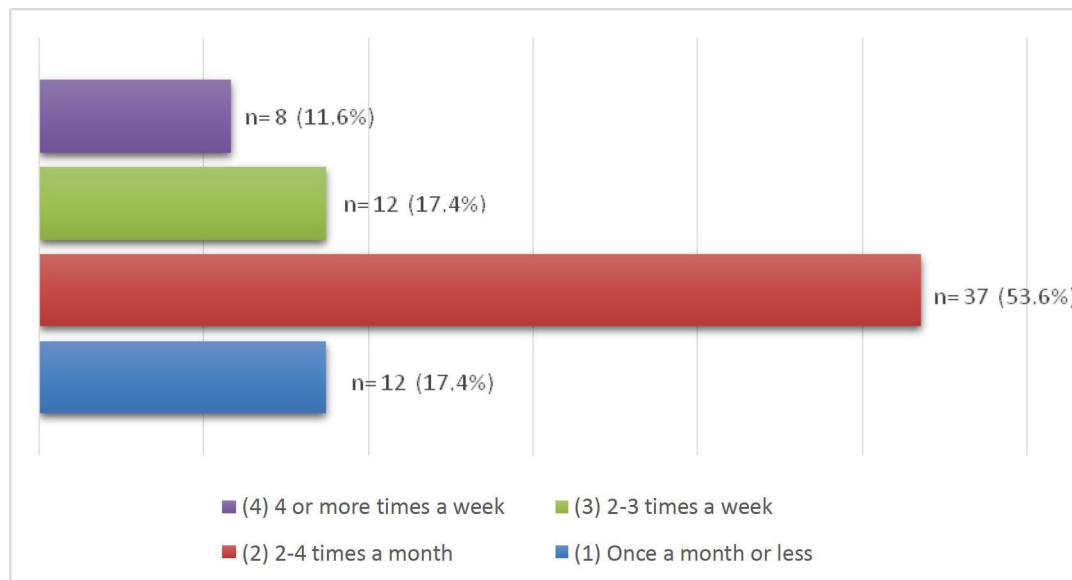


Figure 2 - Frequency of alcohol consumption by health professionals from a reference hospital in infectious and contagious diseases. Belo Horizonte, MG, Brazil, 2020

The main reasons for the use of alcoholic beverages were relaxation (n=17; 32%), leisure (n=16; 30%) and confinement/tension due to the pandemic (n=2; 4%) (Figure 3).

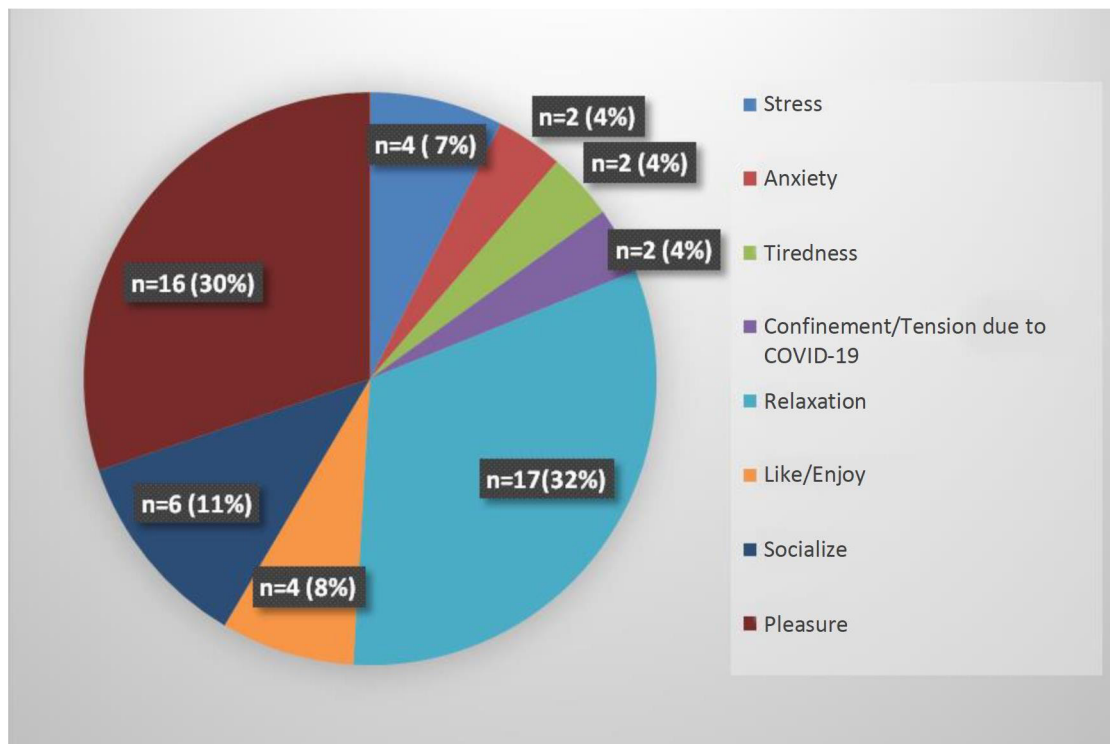


Figure 3 - Reasons for the consumption of alcoholic beverages by health professionals from a reference hospital in infectious and contagious diseases. Belo Horizonte, MG, Brazil, 2020

The AUDIT results were compared with the sociodemographic and professional profile variables. There was a significant association for risk consumption among the interviewees who had family members with the habit of drinking alcoholic beverages ($p < 0.005$) and in those who already drank before the COVID-19 pandemic ($p < 0.001$) (Table 2).

Discussion

Recent research studies indicate that, due to the COVID-19 pandemic, there was an increase in the consumption of alcoholic beverages in several countries around the world, regardless of the economic situation and in a generalized manner among the population⁽⁸⁻¹⁰⁾. The reasons for the increased consumption of alcoholic beverages during the pandemic have been quite diverse, including those related to emotional and economic aspects. The most reported were those related to stress, anxiety and the feeling of sadness or depression for being isolated from family members and friends⁽¹⁰⁻¹²⁾.

In this study, the percentage of alcohol consumption by the health professionals was 59.7%; in a survey carried out with the adult population in Brazilian capitals, the percentage of alcohol use was 38% among the interviewees⁽²⁾ and another research study with health professionals from a family health team⁽⁵⁾ revealed consumption in 50% of the participants. It is to be noted that none of the surveys was carried out in a pandemic scenario.

It should be noted that this value found can be underestimated given the stigma surrounding dependent users. There was an 11.5% increase in the consumption of alcoholic beverages related to the COVID-19 pandemic period among the interviewees. These data are close to those found in a research study on changes in the Brazilians' lifestyle during the COVID-19 pandemic, evidencing a 17.6% increase among the 47,184 individuals interviewed⁽⁹⁾, converging with national and international research studies, which evidence worsening in health behaviors during the pandemic, including increase in the consumption of alcoholic beverages⁽³⁻⁴⁾.

Regarding the sociodemographic characteristics, there is a group of professionals mostly composed of females, nursing technicians, adults, married and who professed some religion; these results corroborate those of the study on alcohol consumption among family health workers⁽⁵⁾ and among Nursing professionals⁽¹³⁾. It is noted that the professionals are highly qualified, that one third of them had some graduate course, and with a family income between 3 and 4 minimum wages, data similar to those presented in the study carried out with graduate students from a public institution in Rio de Janeiro⁽¹⁴⁾.

As for the pattern of alcohol consumption, 31.1% drank occasionally, that is, consumption frequency from 2 to 4 times a month, corroborating a study carried out with workers from Family Health teams in the municipality of Uberlândia⁽⁵⁾. On the other hand, in the research study carried out with Nursing workers⁽¹³⁾, there was consumption at least once a week in 21.2%.

A study published with data from 195 countries concluded that there is no safe level for alcohol consumption, as it was evidenced that the few protective effects of alcohol on diseases such as diabetes and heart diseases are outweighed by the increase in health-related risks, such as the chances of developing cancer⁽¹⁵⁾. However, in its guidelines, the WHO recommends less than two cups of alcoholic beverages a day, a defined pattern that can be less harmful to the individual's health.

The main reason cited for consuming alcoholic beverages was to relax (17.32%), which is similar to previous a research study on alcohol and drug consumption among health professionals attending the graduate course of a public institution⁽¹⁴⁾.

In this research, according to the AUDIT score, risk use of alcohol was more frequent in the participants that had family members who consumed alcoholic beverages. Two national surveys that evaluated the influence of alcohol use by adolescents showed that 24.8% of the participants stated that their first contact with alcohol was due to the offer by family members and that festive family environments predispose to consumption initiation or maintenance⁽¹⁶⁻¹⁷⁾.

There was also a significant association for risk use in health professionals who initiated or increased consumption of alcoholic beverages during the COVID-19 pandemic. Changes in health behaviors caused by the pandemic are recurrent and a number of studies show the relationship of these changes with the increase in alcohol consumption among the population^(3,8-9).

In addition to the psychological repercussions, abusive consumption of alcoholic beverages can lead to occupational accidents, reduced productivity, difficulty in interpersonal relationships and increased absenteeism^(5-6,13). It is fundamental that managers/employers have implemented programs in their companies to encourage healthy living habits, aiming to reduce consumption of alcohol and of other psychoactive substances.

Among the limitations of this study, it is noted that it was conducted in a single hospital setting, as well as the non-participation of all categories of health professionals and that not all sectors of the hospital took part in the research. It is also noteworthy that the possible omission of information by the participants can compromise the results.

Conclusion

The study showed that alcohol consumption is frequent among health professionals and that it recorded an increase due to the COVID-19 pandemic scenario.

In the AUDIT score, risk consumption was more frequent among the professionals who had family members with the habit of consuming alcohol and among those who already drank before the pandemic.

Educational activities aimed at changing health behaviors are essential for the promotion of healthy habits among health professionals. It is imperative that there are new research studies that investigate the consumption pattern and the possible consequences for workers' health.

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Authors' contribution

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