

Parental supervision and alcohol use among Brazilian adolescents: analysis of data from National School-based Health Survey 2015

Supervisão dos pais e o consumo de álcool por adolescentes brasileiros: análise dos dados da Pesquisa Nacional de Saúde do Escolar de 2015

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ABSTRACT: *Objective:* To evaluate the relation between parental supervision and sociodemographic factors and alcohol use by Brazilian adolescents. *Methods:* This is a cross-sectional study with data from National School-based Health Survey (PeNSE) 2015, which included 16,608 adolescents aged 13 to 17 years, students from Brazilian public and private schools. Variables related to alcohol use, sociodemographic factors and parental supervision were evaluated. In order to analyze the relation between sociodemographic variables, parental supervision and use of alcohol among adolescents, prevalence ratios stratified by sex were used. *Results:* It was observed that 61.4% of the adolescents had tried alcohol, 27.2% had a drunken episode in their lifetime, 9.3% have had problems with alcohol and 29.3% reported alcohol use in last 30 days. The lack of parental supervision was associated with increased use of alcohol. The proportion of alcohol use was higher for girls, and also among those who were older than 16 years, worked, did not live with one or both parents, and lived in the South, regardless of sex. *Conclusion:* The results showed early alcohol experimentation and occurrence of problems due to its use among Brazilian adolescents. In addition, the lack of monitoring by parents and guardians shows a risk of alcohol use in this age.

Keywords: Adolescent. Alcohol drinking. Parent-Child relations. Socioeconomic factors.

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RESUMO: *Objetivo:* Avaliar a relação de indicadores de supervisão dos pais e fatores sociodemográficos com o uso de álcool pelos adolescentes brasileiros. *Métodos:* Trata-se de estudo transversal com dados da Pesquisa Nacional de Saúde do Escolar (PeNSE) de 2015. A amostra foi composta de 16.608 adolescentes de 13 a 17 anos estudantes de escolas públicas e privadas brasileiras. Foram analisadas variáveis relacionadas ao uso de álcool, aos fatores sociodemográficos e aos indicadores de supervisão dos estudantes pelos pais. Foram calculadas razões de prevalência (RPs) para análise das relações existentes entre as variáveis sociodemográficas, de supervisão dos pais e o uso de álcool por adolescentes. As análises foram estratificadas por sexo. *Resultados:* Encontrou-se que 61,4% dos adolescentes já haviam experimentado bebida alcoólica, 27,2% já tiveram episódio de embriaguez alguma vez na vida, 9,3% já tiveram problemas devido ao uso de álcool e 29,3% relataram uso nos últimos 30 dias. Menores escores de supervisão dos pais se associaram à maior prevalência de uso de álcool, que também foi elevada entre as meninas, os que tinham idade superior a 16 anos, moravam na Região Sul, trabalhavam e não moravam com os pais. *Conclusão:* Os resultados obtidos evidenciaram, em adolescentes, a experimentação precoce de bebidas alcoólicas e a ocorrência de problemas devido ao uso da substância. Além disso, a falta de supervisão e acompanhamento mais próximo dos filhos pelos pais e responsáveis aumentou o uso de álcool nessa idade.

Palavras-chave: Adolescente. Consumo de bebidas alcoólicas. Relações pais-filho. Fatores socioeconômicos.

INTRODUCTION

Alcohol use among adolescents is a social behavior with consequences for the health and life of these individuals, including traffic accidents, violence, depression, school absenteeism, poor school performance, risky sexual behavior, and drug abuse¹⁻³. In addition, experimental studies in animal models indicate that alcohol consumption during adolescence causes greater damage when compared to exposure during adulthood⁴, and research with humans shows that early initiation of alcohol use predisposes to chronic use and addiction in adulthood⁵.

Because it is a social behavior, alcohol consumption can be influenced by various social factors, such as family, friends, school, the media, both in promoting early experimentation and use and in preventing them¹. Adolescence is affirmed as a critical period in which the social context, which includes relations with friends and parents, exerts an important influence on the development and even on health-risk behaviors^{1,2}. It should be emphasized that parental supervision can directly influence the behavior of alcohol use, as well as the choice of friends, which in turn may influence the use of alcohol¹.

In the last 10 years, some studies in Brazil have demonstrated the magnitude of this problem among adolescents. A study in a capital of the Northeast showed that 29.8% adolescents aged 14 to 20 years use alcohol⁶. Another study, conducted in a municipality in the Southeast, revealed a prevalence of 35.6% of heavy episodic drinking among adolescents in 2010, and 39.9% in 2012⁷. In addition, 25% of adolescents aged 15 years belonging to a birth cohort in the Southern Region reported alcohol consumption⁸.

Nationally, the Study of Cardiovascular Risks in Adolescents (ERICA), with students aged 12 and 17 enrolled in public and private schools in 273 Brazilian municipalities, revealed a prevalence of 21.2% of alcohol use in the last 30 days⁹. Data from the National School-based Health Survey (PeNSE) for 2009, 2012 and 2015 showed a percentage of alcohol use of 27.3, 26.1 and 23.8%, respectively, among students in the 9th year of primary school¹⁰⁻¹². However, the relation between alcohol consumption among adolescents and the family environment was not explored in these recent investigations, which was the aim of this study with PeNSE data for 2015.

PeNSE is conducted every three years since 2009 by the Brazilian Institute of Geography and Statistics (IBGE), in partnership with the Ministry of Health, together with students from public and private schools. In its 2015 edition, two sample designs were used: the first one included students from the 9th grade, according to previous editions, and the second one included students aged 13 to 17 who attended the 6th through 9th grades of primary school, and the 1st through 3rd grades of secondary school¹³. The second sample design of the survey explored the possibility of comparison with international studies evaluating health behaviors among adolescents, such as the Global School-Based Student Health Survey (GSHS), which has already been conducted in several countries with the support of the World Health Organization (WHO) and the Center for Disease Control and Prevention (CDC)¹⁴.

Therefore, considering estimates that one in four adolescents makes use of alcoholic beverages^{8,11,15}, that most national studies have very particular characteristics in their samples, and that the relationship of parental supervision with alcohol use among adolescents was presented only in some studies^{3,16} (with conclusions that point to both the protective role of the family and the possibility of it being a promoter of its early use), the present study aimed to estimate the prevalence of alcohol use indicators, and to analyze the relation between sociodemographic factors and the use of alcohol by Brazilian adolescents aged from 13 to 17, of both sexes, with parental supervision indicators based on data from PeNSE 2015.

METHODS

This cross-sectional study used data from Sample 2 of PeNSE 2015. This sample provides results for students aged from 13 to 17 years old, attending the 6th through 9th grades of primary education and the 1st to 3rd grades of secondary education in public and private schools, and is representative of the whole country and Major Regions¹³. For the calculation of this sample, five geographic strata corresponding to the Major Regions (North, Northeast, Southeast, South, and Midwest) were initially defined. In each of these strata, the schools were chosen as primary sampling units, and then the eligible classes from these schools were chosen as secondary sampling units. All students in the selected classes that were present on the day of data collection composed the sample of students

and were invited to participate in the survey¹³. To calculate the sample size in each stratum, a maximum sampling error of 3% was used to estimate a proportion of 50%, with a 95% confidence level and a mean effect of the sampling plan of 3 in the first stage. At the end of the data collection, the sample was composed of 16,608 students, in 371 schools, and 653 classes throughout the country¹³.

DATA COLLECTION

Data collection was performed by IBGE collection agents from April to September 2015. The self-administered structured questionnaire addressed to the students was inserted in smartphones, and included questions about socioeconomic aspects, family context, food, physical activity, alcohol consumption, tobacco and drugs, among others¹³.

VARIABLES

To achieve the objectives of this study, the variables of the PeNSE 2015 database regarding alcohol consumption, sociodemographic factors, and parental supervision indicators were analyzed. The variables related to alcohol consumption used in this study were: *trying one dose of alcoholic beverage* (equivalent to a beer can or a glass of wine or a dose of cachaça or whiskey, etc.), categorized into yes and no; *drunken episode in life*, categorized into yes and no; *having had alcohol-related problems*, categorized into yes — in case the student has ever had any problems with family or friends, missed classes or got into a fight due to alcohol — and no; and *recent alcohol use*, categorized as yes — if the student has had at least one glass or one serving of alcohol in the last 30 days — and no.

The sociodemographic variables of the students were: *sex* (male and female); *age* (in years); *skin color* (white, black, yellow, brown, and indigenous); *work* (yes and no); *living with parents*, (both, only one, or none); *maternal schooling* (0 to 8, 9 to 11 or 12 years or more of schooling); *geographical region* (North, Northeast, Southeast, South, and Midwest); and *school type* (public or private).

The variables related to parental supervision were: *missed class without parental permission*, categorized into no — if the student had not missed a day of classes without permission in the last 30 days — and yes; *parents not aware of free time activities*, categorized into no — if the parents were actually aware of their children's activities in the free time most often or always in the last 30 days — and yes; *parents absent from meals*, categorized into no — parents usually have lunch or dinner with the child at least once a week — and yes; *parents rarely checking homework*, categorized into no — parents checked their children's homework most of the time or always in the last 30 days — and yes; *parents did not understand the student's concerns*, categorized into no — when parents understood their

children's concerns most often or always in the last 30 days — and yes. These five indicators were also added, forming a score that went from 0 to 5: adolescents with no parental supervision (yes for all responses) scored 5 and those under intense supervision (no for the five responses) scored 0.

DATA ANALYSIS

The prevalence and the 95% confidence interval (95%CI) of the indicators related to alcohol consumption (trying one dose of alcoholic beverage in life, drunken episode in life, alcohol-related problems, and recent alcohol use in the last 30 days), and its distribution according to demographic and socioeconomic variables, sex, and family context indicators that deal with parental supervision. The absolute number was obtained for all these estimates. The Pearson's χ^2 test was used at a significance level of 5%.

For the comparison of the prevalence of alcoholic beverage use in the last 30 days according to proposed variables, the unadjusted and adjusted prevalence ratios (PR), as well as their respective 95%CI values, were estimated. Unadjusted and multivariate models were stratified by sex. All analyzes were carried out in the Survey module of the Stata 14 software, taking into account the complex sampling design of PeNSE's Sample 2, which allowed the production of population estimates for school adolescents aged between 13 and 17 years.

ETHICAL CONSIDERATIONS

PeNSE 2015 was approved by the National Commission for Research Ethics (CONEP) of the National Health Council (CNS), which regulates health research involving human beings.

RESULTS

The prevalence of alcohol testing among adolescents was 61.4% (95%CI 59.1 – 63.7), higher among girls (62.9%) than among boys (60.0%) ($p = 0.044$) (Table 1). Trying alcohol precociously, that is, before the age of 13, had 50.6% (95%CI 47.6 – 53.7%) and there was a higher proportion of boys who experience alcohol earlier than girls (54.4 versus 47.0%) ($p < 0.001$). Among the adolescents, 27.2% (95%CI 25.4 – 29.0) reported a drunken episode in their lifetime, 9.3% (95%CI 8.5 – 10.2) stated they had problems due to alcohol use and 29.3% (95%CI 27.5 – 31.2) reported recent use, without significant differences between boys and girls ($p > 0.05$).

Differences in the prevalence of recent alcohol use according to sociodemographic variables were also observed (Table 2). The prevalence of recent alcohol use increased with age in both sexes ($p < 0.0001$). Young residents in the South Region had a higher prevalence of

recent alcohol use, 39.8% for females and 36.7% for males, and those from the North Region had the lowest prevalence (20.4 for females and 19.9% for males) ($p < 0.0001$). Young women with yellow or indigenous skin color reported a higher prevalence of alcohol use ($p = 0.020$). Among adolescents who work, a higher prevalence of alcoholic beverages was observed, with 45.7% for females and 46.1% for males ($p < 0.0001$). Living with the parents had a significant impact on the prevalence of alcohol use, which was higher in the absence of one or both parents, especially for female adolescents ($p = 0.030$). There were no significant differences according to the skin color and living with the parents for boys, neither according to maternal schooling and school type for both sexes.

When evaluating the prevalence of recent alcohol use according to the family context, it was observed for all the indicators studied that the lower the parental supervision, the higher the prevalence of alcohol use by adolescents for both sexes ($p < 0.001$) (Table 3).

After adjusting for all the factors investigated, the final multivariate model showed that young people aged over 13 years have a higher prevalence of recent alcohol use, and among those who are older (16 years old or more), the prevalence of alcohol use was double of that observed among the youngest (13 years old), still in greater magnitude for males (Table 4). Girls with yellow or indigenous skin color showed a higher prevalence of

Table 1. Prevalences and respective 95% confidence intervals of outcomes related to alcohol consumption, by sex, in students aged 13 to 17 years. National School-based Health Survey, Brazil, 2015.

Situations related to alcohol consumption	Total			Sex				p-value
				Female		Male		
	n	%	95%CI	%	95%CI	%	95%CI	
Trying one dose of alcoholic beverage in life								0.044
No	4,312	38.6	(36.3 – 40.9)	37.1	(34.3 – 40)	40.0	(37.4 – 42.7)	
Yes	6,593	61.4	(59.1 – 63.7)	62.9	(60 – 65.7)	60.0	(57.4 – 62.6)	
Drunken episode in life								0.591
No	8,079	72.9	(71 – 74.6)	73.2	(71.2 – 75)	72.5	(70.2 – 74.8)	
Yes	2,835	27.2	(25.4 – 29)	26.8	(25 – 28.8)	27.5	(25.2 – 29.8)	
Having had alcohol-related problems								0.102
No	9,949	90.7	(89.8 – 91.5)	91.4	(90.2 – 92.4)	90.1	(88.7 – 91.3)	
Yes	969	9.3	(8.5 – 10.2)	8.7	(7.6 – 9.8)	9.9	(8.7 – 11.3)	
Recent alcohol use in the last 30 days								0.117
No	7,804	70.7	(68.9 – 72.5)	69.7	(67.5 – 71.8)	71.7	(69.4 – 73.8)	
Yes	3,108	29.3	(27.5 – 31.2)	30.3	(28.2 – 32.5)	28.3	(26.2 – 30.6)	

95%CI: 95% confidence interval.

Table 2. Prevalences and respective 95% confidence intervals of alcohol use in the last 30 days, by sociodemographic characteristics, in students aged 13 to 17 years. National School-based Health Survey, Brazil, 2015.

Sociodemographic characteristics	n	Females			Males		
		%	95%CI	p-value	%	95%CI	p-value
Age (years)				< 0.001			< 0.001
13	2,561	18.2	(15.1 – 21.7)		13.8	(11.1 – 17.0)	
14	2,133	27.3	(22.3 – 32.9)		22.2	(18.8 – 26.1)	
15	2,425	32.7	(28.9 – 36.7)		29.4	(25.4 – 33.7)	
16	2,270	35.2	(31.1 – 39.5)		39.0	(34.7 – 43.4)	
17	1,537	38.1	(33.0 – 43.4)		39.0	(34.1 – 44.1)	
Color or race				0.020			0.235
Black/brown	5,837	28.2	(25.7 – 30.9)		27.3	(24.7 – 30.0)	
White	4,300	32.9	(30.0 – 36.1)		29.2	(26.3 – 32.2)	
Yellow/indigenous	781	33.5	(27.3 – 40.3)		32.2	(26.3 – 38.7)	
Work				< 0.001			< 0.001
No	9,112	28.0	(25.8 – 30.2)		23.7	(21.5 – 26.1)	
Yes	1,804	45.7	(39.8 – 51.7)		46.1	(42.5 – 49.8)	
Living with parents				0.030			0.344
None	707	32.4	(27.0 – 38.4)		30.5	(23.6 – 38.5)	
Only one	3,943	32.7	(29.6 – 35.9)		29.7	(26.4 – 33.2)	
Both	6,266	28.4	(26.0 – 31.0)		27.3	(24.9 – 29.8)	
Maternal schooling (years)				0.857			0.096
0 to 8	2,997	32.9	(29.4 – 36.5)		27.9	(24.8 – 31.2)	
9 to 11	2,788	32.3	(28.3 – 36.6)		29.3	(25.6 – 33.2)	
12 and more	2,767	31.2	(26.8 – 35.8)		33.3	(29.4 – 37.6)	
Geographic region				< 0.001			< 0.001
North	2,139	20.4	(17.2 – 24.1)		19.9	(16.5 – 23.9)	
Northeast	2,277	22.5	(19.3 – 26.2)		21.4	(17.8 – 25.4)	
Southeast	2,083	33.9	(29.9 – 38.2)		32.0	(28.2 – 36.1)	
South	2,152	39.8	(35.9 – 43.9)		36.7	(32.9 – 40.7)	
Midwest	2,275	33.4	(29.9 – 37.0)		31.2	(27.6 – 35.0)	
School type				0.366			0.141
Private	2,639	32.8	(27.1 – 39.1)		32.3	(26.8 – 38.2)	
Public	8,287	29.9	(27.6 – 32.3)		27.8	(25.5 – 30.2)	

95%CI: 95% confidence interval.

Table 3. Prevalences and respective 95% confidence intervals of alcohol use in the last 30 days, by parental supervision indicators, in students aged 13 to 17 years. National School-based Health Survey, Brazil, 2015.

Parental supervision indicators	n	Females			Males		
		%	95%CI	p-value	%	95%CI	p-value
Missed class without parental permission				< 0.001			< 0.001
No	8,364	25.6	(23.6 – 27.8)		24.8	(22.5 – 27.3)	
Yes	2,527	44.4	(40.1 – 48.9)		37.0	(33.2 – 41.1)	
Parents rarely aware of free time activities				< 0.001			< 0.001
No	7,374	26.7	(24.5 – 29.1)		25.0	(22.5 – 27.7)	
Yes	3,505	38.9	(35.3 – 42.7)		33.6	(30.8 – 36.5)	
Parents rarely presente for meals				< 0.001			0.002
No	8,592	27.5	(25.4 – 29.8)		27.2	(24.9 – 29.7)	
Yes	2,314	38.4	(34.0 – 42.9)		33.4	(29.7 – 37.4)	
Parents rarely checked if homework was done				< 0.001			< 0.001
No	3,086	22.0	(19.2 – 25.0)		21.5	(18.4 – 25)	
Yes	7,786	33.3	(30.9 – 35.9)		31.4	(29.1 – 33.8)	
Parents did not understand their problems and concerns				< 0.001			< 0.001
No	4,833	25.0	(22.5 – 27.8)		25.1	(22.5 – 27.9)	
Yes	6,031	34.5	(31.8 – 37.3)		31.1	(28.6 – 33.9)	
Parental supervision score				< 0.001			< 0.001
0	1,344	16.5	(13.4 – 20.3)		15.4	(12 – 19.5)	
1	2,538	22.6	(19.4 – 26.3)		23.9	(20.9 – 27.2)	
2	3,054	28.8	(25.9 – 31.9)		27.6	(24.1 – 31.3)	
3	2,407	35.8	(32.1 – 39.7)		33.3	(29.4 – 37.3)	
4	1,186	43.6	(38.7 – 48.6)		38.4	(34.2 – 42.9)	
5	279	61.9	(51.0 – 71.7)		42.9	(32.8 – 53.6)	

95%CI: 95% confidence interval.

Table 4. Unadjusted and adjusted prevalence ratios and 95% confidence intervals of alcohol use in the last 30 days, by sociodemographic characteristics and parental supervision, according to sex in students aged 13 to 17 years. National School-based Health Survey, Brazil, 2015.

Variables	Females				Males			
	PR _{ua}	95%CI	PR _a	95%CI	PR _{ua}	95%CI	PR _a	95%CI
Age (years)								
13								
14	1.5	(1.19 – 1.90)	1.45	(1.15 – 1.84)	1.61	(1.25 – 2.08)	1.58	(1.16 – 2.15)
15	1.8	(1.45 – 2.23)	1.6	(1.29 – 1.98)	2.13	(1.66 – 2.74)	2.05	(1.54 – 2.72)
16	1.93	(1.54 – 2.43)	1.7	(1.37 – 2.09)	2.83	(2.22 – 3.59)	2.49	(1.92 – 3.23)
17	2.1	(1.67 – 2.63)	1.77	(1.43 – 2.20)	2.83	(2.22 – 3.60)	2.41	(1.85 – 3.12)
Color or race								
Black/brown								
White	1.17	(1.04 – 1.31)	1.09	(0.97 – 1.22)	1.07	(0.95 – 1.21)	0.95	(0.83 – 1.08)
Yellow/ indigenous	1.19	(0.97 – 1.45)	1.24	(1.03 – 1.49)	1.18	(0.96 – 1.45)	1.04	(0.82 – 1.32)
Work								
No								
Yes	1.63	(1.40 – 1.91)	1.26	(1.09 – 1.47)	1.95	(1.74 – 2.17)	1.56	(1.38 – 1.75)
Living with parents								
None								
Only one	1.01	(0.84 – 1.21)	1.1	(0.91 – 1.32)	0.97	(0.73 – 1.29)	0.98	(0.73 – 1.32)
Both	0.88	(0.73 – 1.05)	1.04	(0.86 – 1.27)	0.89	(0.71 – 1.13)	0.89	(0.70 – 1.14)
Maternal schooling (years)								
0 to 8								
9 to 11	0.98	(0.83 – 1.16)	0.96	(0.82 – 1.11)	1.05	(0.89 – 1.24)	1.06	(0.91 – 1.25)
12 and more	0.95	(0.78 – 1.15)	0.92	(0.76 – 1.11)	1.2	(1.02 – 1.40)	1.19	(1.01 – 1.41)
Geographic region								
North								
Northeast	1.1	(0.88 – 1.39)	1.23	(0.97 – 1.56)	1.07	(0.83 – 1.39)	1	(0.78 – 1.29)
Southeast	1.66	(1.35 – 2.05)	1.77	(1.43 – 2.18)	1.6	(1.28 – 2.01)	1.51	(1.22 – 1.87)
South	1.95	(1.60 – 2.38)	1.93	(1.56 – 2.39)	1.84	(1.49 – 2.28)	1.77	(1.43 – 2.19)
Midwest	1.63	(1.34 – 2.00)	1.72	(1.38 – 2.13)	1.56	(1.25 – 1.95)	1.52	(1.22 – 1.9)
School type								
Private								
Public	0.91	(0.75 – 1.11)	0.81	(0.68 – 0.98)	0.86	(0.71 – 1.05)	0.81	(0.67 – 0.96)
Parental supervision score*								
0								
1	1.37	(1.07 – 1.75)	1.21	(0.95 – 1.54)	1.55	(1.22 – 1.97)	1.44	(1.09 – 1.89)
2	1.74	(1.37 – 2.22)	1.56	(1.23 – 1.98)	1.79	(1.38 – 2.32)	1.6	(1.22 – 2.10)
3	2.17	(1.73 – 2.71)	1.92	(1.52 – 2.41)	2.16	(1.66 – 2.80)	2.13	(1.59 – 2.84)
4	2.64	(2.09 – 3.33)	2.3	(1.81 – 2.93)	2.49	(1.92 – 3.23)	2.3	(1.71 – 3.10)
5	3.75	(2.84 – 4.95)	2.99	(2.22 – 4.04)	2.78	(1.97 – 3.93)	2.46	(1.68 – 3.59)

PR_{ua}: unadjusted prevalence ratio; PR_a: adjusted prevalence ratio; 95%CI: 95% confidence interval; *p trend <0.001 for both sexes

consumption even after adjustment. Adolescents who work, compared to those who do not work, have predominance of alcohol use (around 30% and 60% higher for girls and boys, respectively). Living in the Southeast, South and Midwest Regions, in both sexes, increased the prevalence of alcohol use. Studying in public schools was a protective factor for recent use of alcohol for both sexes, and a high level of maternal schooling was associated with alcohol use only for boys (PR = 1.20; 95%CI 1.01 – 1.42). Finally, parental supervision remained associated with recent alcohol use in adolescents, with dose-response effect (p-trend < 0.0001), regardless of sex. Thus, the lower the parental supervision, the higher the prevalence of recent alcohol use, being almost twice as high for boys and three times higher for girls. In the adjusted model, however, living with parents did not remain associated with recent alcohol use.

DISCUSSION

The results of this study show that at least one in three adolescents, approximately, used alcohol. They also show that the proportion of alcoholic beverage experimentation was higher for females. The higher the age, the higher the prevalence of alcohol use for both sexes. In addition, specific groups, such as adolescents who work and those who live in the Southern Region, also showed a higher prevalence of recent alcohol use in both sexes. The lack of parental supervision was also associated with greater alcohol use, in which case a dose-response relationship was observed, that is, the lower the supervision, the greater the prevalence of use. There were different factors associated with alcohol use in relation to sex: yellow/indigenous skin color (in females) and maternal schooling of 12 years or more (in males) were significantly associated with a higher prevalence of alcohol use.

The use of alcohol by adolescents in Brazil was similar to that verified by previous studies, including PeNSE estimates with a sample of 9th grade students, emphasizing that in 2009, only school students from Brazilian capitals were included^{6,10-12}; and slightly higher than that found by other Brazilian studies^{8,9}. Regarding the international scenario, the frequency of consumption was slightly lower than that found in other countries, as presented in an American study with 2,000 schoolchildren participating in the different waves of the Add Health survey, which showed a prevalence of 40 to 50% of alcohol consumption¹ (although the methods used to measure alcohol use differed). A study with similar measure that evaluated data from the GSHS study, including adolescent populations aged 12 to 15 from countries in all WHO regions (Africa, Americas, Europe, Eastern Mediterranean, Western Pacific and Southeast Asia), found a prevalence of alcohol in the last 30 days of 15.7% (12.3 – 19.5), lower than that found in the present study¹⁷. However, when comparing only with the Americas, which presented higher prevalence of alcohol use, the estimates were similar: 27.6% (22.7 – 32.9) among male adolescents and 24.7% (19.3 – 30.5) among females¹⁷.

Data from the present study and other editions of PeNSE with 9th grade students^{10,11} show that, among females, the prevalence of alcohol use and experimentation is similar or sometimes slightly higher than in males, different from what can be found in the international literature. Analysis of the GSHS data pool conducted by the WHO found predominance of recent higher alcohol use in males, in relation to females, in all WHO regions¹⁷. However, studies with the Brazilian adult population show that, over the years, boys tend to outperform girls in relation to this behavior^{18,19}. Thus, the relationship between alcohol consumption and the gender variable should continue to be monitored, as it may be a cohort effect due to new gender identity tendencies²⁰.

There was a higher prevalence of alcohol use among working adolescents, corroborating the findings of other studies^{2,12,21}. One possible explanation for this association is the fact that working adolescents acquire greater independence and proximity to adult roles²¹. In addition, the work environment provides coexistence with older people who can introduce alcohol to the adolescents, in addition to stressful situations that predispose to the use of alcohol^{2,21}. A study that analyzed the relationship of other drugs and work also found similar results¹², especially the lower commitment to school among these adolescents.

Recent studies have also shown the relationship between alcohol consumption and parental supervision^{1,3,22,23}, corroborating the findings of this study and highlighting the relevance of the parents' presence and their possible direct relationship with greater discipline and norms, which, consequently, contribute to the development of important social skills for the adoption of protective behaviors to the use of alcohol, such as the choice of friends, recognition of the risks involved, among others¹. A study that analyzed the causal network of alcohol use also showed that the greater participation of parents contributed to the increase of adolescents' self-esteem, which, in turn, contributed to the lower consumption of alcohol²³. The present study demonstrated a dose-response relationship of this finding, indicating a potential confirmation of psychosocial mechanisms of the negative effect that the parents' absence on the daily life and activities of adolescents have on alcohol consumption.

However, there are limitations to this study, such as the possibility of underestimation of actual alcohol use among adolescents, as those who do not attend school can consume more alcoholic beverages. In addition, the associations found must be interpreted with caution with regard to cause and effect relationships, due to the cross-sectional design. However, as few studies have explored the family context, such as parental supervision, and increased alcohol consumption³, it is believed that this study contributes to some evidence in this regard. In addition, the use of a population of adolescents aged 13 to 17 years stands out, allowing greater international comparability.

FINAL CONSIDERATIONS

The results obtained evidenced the experimentation of alcoholic beverages and the occurrence of problems due to the use of the substance at very young ages. The study

also showed a high prevalence of alcohol use in both sexes, especially among those who work, aged over 13 years, and residents of the South Region. The characteristics related to the family context showed an association with the use of alcohol by adolescents, and a greater supervision by parents and guardians was protective against the outcome in the age group studied.

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