The use of alcohol and tobacco by adolescents in the municipality of Embu, São Paulo, Brazil

O USO DE ÁLCOOL E TABACO POR ADOLESCENTES DO MUNICÍPIO DE EMBU, SÃO PAULO, BRASIL

EL DE ALCOHOL Y TABACO EN ADOLESCENTES EN EL MUNICIPIO DE EMBU, SÃO PAULO, BRASIL

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ABSTRACT

The objective of this study is to identify the use of alcohol and tobacco among adolescents. It is a descriptive study that was developed with 1533 adolescents, both male and female, based on the following inclusion criteria: aged between 10 and 20 years old, registered and regularly attending elementary or high school at state schools in the morning period, in the regions of Santo Eduardo and Santa Emília, in the municipality of Embu. Results showed that 4.8% smoked and 58.3% tried an alcoholic drink. The age mean for the initiation in the use of alcohol was 13.1 years old (s=1.9) and the age mean for the initiation in the use of tobacco was 12.6 years old (s=1.5). The conclusion was that the study population presented a low consumption of tobacco and a high consumption of alcohol, an early initiation in the use of alcohol and tobacco, the alcoholic ingestion took place, mainly, in parties, with friends, and even at home, with relatives. It was also observed that wine is the favorite drink of these adolescents.

KEY WORDS

Adolescent.
Alcohol drinking.
Smoking.
Adolescent behavior.
Adolescent health.

RESUMO

O objetivo deste estudo é identificar o uso de álcool e tabaco entre os adolescentes. Trata-se de um estudo descritivo, realizado junto a 1533 adolescentes de ambos os sexos, tendo por critérios de inclusão: faixa etária entre 10 e 20 anos, matriculados e freqüentando regularmente o ensino fundamental ou ensino médio das escolas estaduais, no período matutino, nas regiões de Santo Eduardo e Santa Emília, no município de Embu. Os resultados mostraram que 4,8% são fumantes e 58,3% experimentaram bebida alcoólica. A média de idade de iniciação do uso de álcool é de 13,1 anos (s=1,9) e a média de idade de iniciação do uso de tabaco é de 12,6 anos (s=1,5). Conclui-se que a população do estudo apresentou um baixo consumo de tabaco e um elevado consumo de álcool, uma iniciação precoce do uso de álcool e tabaco, a ingestão alcoólica, principalmente, em festas, com os amigos, ou até mesmo em casa, com familiares. Constatou-se também que o vinho é a bebida preferida desses jovens.

DESCRITORES

Adolescente.
Consumo de bebidas alcoólicas.
Tabagismo.
Comportamento do adolescente.
Saúde do adolescente.

RESUMEN

Se trata de un estudio descriptivo, realizado junto a 1533 adolescentes de ambos sexos, tomándose como criterios de inclusión: faja etaria entre 10 y 20 años, matriculados y asistiendo regularmente a la enseñanza primaria o secundaria de las escuelas estatales en las regiones de Santo Eduardo y Santa Emilia, en el municipio de Embu, en el horario matutino; teniéndose por objetivo identificar el uso de alcohol y tabaco entre los mismos. Los resultados demostraron que: 4,8% de ellos son fumadores, 58,3% probaron bebidas alcohólicas, la media de edad para la iniciación del consumo de alcohol fue de 13,1 años (s=1,9), la media de edad para el inicio de consumo de tabaco fue de 12,6 años (s=1,5). Se concluye en que la población del estudio exhibió un bajo consumo de tabaco y un elevado consumo de alcohol, iniciación precoz en el uso de tabaco y alcohol, ingestión alcohólica principalmente en fiestas con amigos o hasta incluso en casa con familiares, el vino fue la bebida preferida.

DESCRIPTORES

Adolescente.
Consumo de bebidas alcohólicas.
Tabaquismo.
Conducta del adolescente.
Salud del adolescente.

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INTRODUCTION

The indiscriminate use of drugs by the population is currently treated as a serious public health problem as it affects both men and women of any age, economic and social class[1].

In relation to tobacco use in the world, it is estimated that there are currently about one billion and 200 million active smokers, 960 million of whom are addicted to nicotine. In view of this pandemic of modern society, if the current pattern of tobacco consumption continues, by 2010 the statistical projections point to the emergence of 400 million new smokers[2].

Alcohol use is even more alarming considering that more than 80% of the adult population uses or has had at least one drink, and only about 20% can be considered completely abstinent[3].

In Brazil, data from the 1st Household Survey in 2001, which interviewed 41.3% of the national population, it was found that 11.2% were dependent on alcohol and 9% on tobacco[1]. In addition to this prevalence, it was found that, respectively, 41.1% and 68.7% of Brazilians consumed tobacco and alcohol on a daily basis[1]. The 2nd Household Survey in 2005 found that, in the interviewed population, the daily use of alcohol and tobacco increased to 74.6% to 44%, respectively[4].

The involvement with licit as well as illicit drugs during adolescence is extremely important as an issue for discussion, as several studies show that it is during this stage of development that adolescents and young people become more susceptible to having the first contact with drugs, especially with those considered licit, among which alcohol and tobacco stand out because of their prevalence[5].

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According to the latest survey conducted by the Brazilian Center for Information on Psychotropic Drugs (CEBBRID - *Centro Brasileiro de Informação sobre Drogas Psicotrópicas*) among students in primary and secondary education in 27 Brazilian capitals, alcohol and tobacco are drugs that have an earlier onset of use among adolescents and young people; around 12.5 and 12.8 years respectively. Moreover, the same survey compared the data with recent surveys (1987, 1989, 1993 and 1997), and found that the daily use of alcohol did not increase, which agrees with other studies. There was, however, an increase in daily use of tobacco by adolescents[5].

Regarding the fact that it is easy for young people to obtain and consume alcoholic beverages and tobacco, the current literature reports the following as the major causes: conducive family environment[1,3-4] or liberal parents[3], low price of cigarettes[6], accessibility (bars, restaurants, bakeries)[7], influence from peers[8] and advertisements[3].

Thus when adolescents are referred to as a group at greater risk in terms of the risk of drug use and initiation, it is necessary to clarify that adolescents experience a unique existential moment due to the changes regarding the natural process of development, changing from a child's body to that of an adult, and from then on the most important thing for them is to be popular and have the feeling of "fitting in," trying to adapt to a peer group, a characteristic that may pose a greater tendency for the onset of alcohol and tobacco use among young people, who do not take into consideration the fact that they may be harming their own bodies[9].

Such damage may further reflect on developing drug addicts, who experienced health-hazardous events. In the case of excessive alcohol consumption, some of the consequences are: memory loss, alcoholic dementia, hepatitis, pancreatitis, myocardial infarction, arrhythmia, stroke, and alcoholic cardiomyopathy[3]. Furthermore, during adolescence the consequences include: decreased academic performance[10] and car accidents involving young individuals under the influence of alcohol[11].

Health risks involving tobacco refer to cancers of the lung, mouth, throat and esophagus, atherosclerosis, angiogenesis, neurogenic disorders and even sexual impotence in men, and early menopause and osteoporosis in women[2].

In this context, a university extension project was developed, called "Corporeality and Health Promotion" in the regions of Santo Eduardo and Santa Emília in Embu, a municipality where the Federal University of São Paulo (UNIFESP) has been in operation in the local health system since 1970, through the Embu Program for the Integration of Teaching and Care (Embu-PIDA), counting with representatives in the Municipal Health Department and partnerships with the community. The program promotes activities for health education with adolescents who attend four public schools for primary and secondary education.

OBJECTIVES

The purpose of this study was to characterize the study population; identify the frequency of licit drugs use (alcohol and tobacco) among adolescents studying in public schools of a municipality in São Paulo, with the primary goal to prevent substance use and promote health education.

METHOD

Type of study

This is a descriptive study, as it promotes an outline of the reality, through which it is possible to describe, register, analyze and interpret the current nature or processes of the studied phenomena[12].

Ethics

The project of the present study was evaluated and approved by the UNIFESP Ethics Review Board, under document number 1398/05.

Study population and location

The study population consisted of 1541 adolescents who complied with the following inclusion criteria: either gender, aged between 10 and 20 years, enrolled and regularly attending morning classes of 6th, 7th or 8th grade of primary education or 1st, 2nd or 3rd year of secondary education at the public schools located in the region of Santo Eduardo and Santa Emília in Embu, who agreed to participate in the activities of the university extension program *Corporeality and Health Promotion*. Eight questionnaires were later excluded from the study because they did not comply with the established criteria, thus resulting in a total population of 1533 adolescents.

Instrument and data collection

A semi-structured self-administered questionnaire was designed for data collection, containing questions regarding the addressed issue. The applicability of the instrument was assessed through a pre-test performed at one of the schools, with 48 students. After making the necessary corrections, the questionnaire presented 25 questions containing the following variables: gender, age, education level, marital status, religion, use of licit drugs (alcohol and tobacco), behavior regarding the consumption of alcoholic beverages (frequency, amount and preferred beverages), besides the disorders caused by alcohol use. The questionnaire was distributed in the classroom, in the final quarter of 2006 and early in the first quarter of 2007, on the days that student were involved in the activities promoted by the Extension group, under the supervision of the researcher and all students agreed to participate.

Data analysis

The study data were presented in a quantitative context, in which the information collected from the questionnaires was stored in databanks using Microsoft Excel (Windows X-P/2000). The data was numbered and grouped by school and education level, creating specific databanks for each school, which allowed for a thorough review and consolidation of data into a general databank. The Pearson's Test was applied an in cases when it was not adequate, the Likelihood Ratio Test was used, with significance at 5%, performed using SPS 12.0 for Windows. The median, mean age, and standard deviation were obtained for the population; regarding illicit drugs: the mean, standard deviation and minimum and maximum age of the first use of alcohol and tobacco, and a confidence interval of 95% was applied.

RESULTS

The study population consisted of 1533 adolescents, 799 (52.1%) of which were male and 734 (47.8%) were female. The mean age was 14.45 years (sd= 1.73) / IIC95%: 14.5-14.3) and median 14.9 years, respectively for males and females: 14.5 years (sd= 1.76) / (CI95%: 14.3-14.6) and 14.4 years (sd=1.70) / (CI95%: 14.5-14.2).

Regarding the health behaviors concerning the use of licit drugs (alcohol and tobacco), the mean age for their initiation of alcohol consumption was 12.1 years (sd=1.9) / (CI95%: 12.24-12.01); for tobacco use the mean age was 12.6 years (sd=1.5) / (CI95%: 12.98-12.30), and the minimum and maximum age was, respectively, 3 and 20 years for alcohol and 9 and 16 years for tobacco.

The sociodemographic data revealed that most studied adolescents were between 14 and 16 years old (49.6%), single (98%), regularly enrolled in the 8th grade of primary education (41.9%) and mostly Catholic (53.4%) (Table 1).

Stratifying by gender, it is observed that most girls were between 12 and 14 years old, while most boys were between 14 and 16 ($p< 0.05$). Considering the variables *education level* and *marital status*, it is observed that the rates for boys and girls are similar ($p=0.204$) and ($p=0.383$), respectively. Regarding religion, stratifying by gender, there was a statistically significant association ($p < 0.001$) of the population with the category *Atheist*, which a higher percentage of male subjects (Table 1).

Regarding the use of licit drugs (alcohol and tobacco) it was observed that 4.8% are smokers, with no statistical correlation between genders ($p=0.117$), and that 58.3% have consumed alcoholic beverages, an girls presenting a higher rate (61.6%) of exposure to alcohol use ($p=0.0013$) (Table 2).

Regarding tobacco use and the daily consumption among adolescent smokers, it was observed that 57.1% of girls and 43.7% of boys consumed up to one pack of cigarettes/day ($p= 0.635$).

Alcohol use among the adolescents showed a significant correlation with the variables *age group* and *education level*. It was observed that the older they were or the higher the education level, the more frequent the use of alcoholic beverages.

Hence, comparing age groups side-to-side it is observed that 75% of adolescents older than 20 years have consumed alcoholic beverages at some point of their lives, showing a prevalence 1.8 times greater than that observed among adolescents of ages between 10 and 12 years. The same tendency was observed for the use of alcohol and education level, as 69.5% of the 3rd year (secondary education) presented this behavior, showing a frequency 1.57 greater compared to students of the 6th grade (primary education).

The study also sought to investigate the association between alcohol consumption and religion, and it was observed that alcohol use was lesser among students who reported following more conservative religions, such as Evangelic groups (43.9%).

Table 1 - Absolute and relative frequency of adolescents according to sociodemographic characteristics (age group, level of education, marital status and religion), by gender - Embu, São Paulo - Brazil - 2006-2007

Variables	Male		Female		Total		p Value
	F(799)	Fr(100%)	F(734)	Fr(100%)	F(1533)	Fr(100%)	
Age							
10I - 12	70	8.8	49	6.7	119	7.8	
12I - 14	197	24.7	234	31.9	431	28.1	**p<0.05**
14I - 16	407	50.9	354	48.2	761	49.6	**p<0.05**
16I - 18	104	13	77	10.5	181	11.8	
18I - 20	17	2.1	16	2.2	33	2.2	
>20	4	0.5	4	0.5	8	0.5	
Education Level							0.204
6th grade	57	7.1	54	7.3	111	7.2	
7th grade	217	27.2	195	26.6	412	26.9	
8th grade	341	42.7	301	41	642	41.9	
1st year	91	11.4	89	12.1	180	11.7	
2nd year	48	6	32	4.4	80	5.2	
3rd year	45	5.6	63	8.6	108	7. 1	
Marital status							0.383
Single	781	97.7	722	98.4	1503	98	
Married	18	2.3	12	1.6	30	2	
Religion							
Catholic	409	51.2	410	55.8	819	53.4	
Evangelic	171	21.4	195	26.7	366	23.9	
Spiritualist	6	0.8	10	1.4	16	1.0	
Jehovah's witness	15	1.9	16	2.2	31	2.0	
None	168	21	90	12.3	258	16.9	**p<0.001**
Adventist	5	0.6	2	0.3	7	0.5	
Unspecified	25	3.1	11	1.5	36	2.3	

Table 2 - Distribution of study participants by gender and use of licit drugs (alcohol and tobacco) - Embu, São Paulo - Brazil - 2006-2007

Variables	Male		Female		Total		p Value
	F(799)	Fr(100%)	F(734)	Fr(100%)	F(1533)	Fr(100%)	
Smoker							0.117
Yes	32	4	42	5.7	74	4.8	
No	767	96	692	94.3	1459	95.2	
Has used alcohol before							0.0013
Yes	442	55.3	452	61.6	894	58.3	
No	357	44.7	282	38.4	639	41.7	

Regarding the consumption of alcohol over the last 12 months, no differences were observed concerning the consumption of alcoholic beverages for adolescents of both genders. (p=0.829) (Table 3).

Table 3 - Percentage and absolute distribution of adolescents who consumed alcoholic beverages over the last 12 months, by gender – Embu, São Paulo - Brazil - 2006-2007

Variables	Male		Female		Total		p Value
	F(n)	Fr(100%)	F(n)	Fr(100%)	F(n)	Fr(100%)	
Consumed alcohol over the last 12 months							0.829
Yes	311	70.2	321	70.9	632	71	
No	132	29.8	132	29.1	264	29	

Table 4 shows that 88% of adolescents reported drinking sometimes, with no significant difference between the drinking behavior among boys and girls (p=0.456). This feature is also observed regarding the amount of alcohol consumed, which is referred to as low (p=0.368).

Table 4 - Absolute and percentage distribution of adolescents according to their behaviors regarding their consumption of alcoholic beverages over the last 12 months by gender - Embu. São Paulo - Brazil - 2006-2007

Variables	Male		Female		Total		p Value
	F(n)	Fr(100%)	F(n)	Fr(100%)	F(n)	Fr(100%)	
Frequency of use							0.456
Daily	3	1	1	0.3	4	0.6	
Weekends	38	12.2	34	10.6	72	11.4	
Sometimes	270	86.8	286	89.1	556	88	
Amount consumed							0.368
Little	199	64	219	68.2	418	66.1	
Average	95	30.5	82	25.6	177	28	
Much	17	5.5	20	6.2	37	5.9	
Preferred beverage							<0.001
Beer	77	24.8	42	13.1	119	18.8	
Wine	143	46	183	5.7	326	51.5	
Cachaca	6	1 .9	3	0.9	9	1.4	
Cachaca/Wine	1	0.3	1	0.3	2	0.3	
Beer/Wine/Cachaca	12	3.9	8	2.5	20	3.2	
Beer/Cachaca	1	0.3	0	0	1	0.2	
Beer/Wine/Cocktail	0	0	1	0.3	1	0.2	
Beer/Wine	31	10	29	9	60	9.5	
Cocktail	13	4.2	24	7.5	37	5.8	
Cocktail /Beer	1	0.3	2	0.6	3	0.5	
Cocktail /Wine	1	0.3	14	4.4	15	2.4	
Energy drink	2	0.6	0	0	2	0.3	
Cognac	1	0.3	0	0	1	0.2	
Vodka	2	0.6	3	0.9	5	0.8	
Vodka/Wine	0	0	1	0.3	1	0.2	
Champagne	8	2.6	4	1.2	12	1.9	
Unspecified	12	3.9	6	1.9	18	2.8	

Among the beverages referred to by the adolescents, 51.5% stated that wine is their preferred beverage, followed by beer (18.8%). Regarding the preference of boys and girls, a statistically significant correlation (p< 0.001) was observed, in which over half the girls drink wine and close to 13% drink beer. Most boys also drink wine and beer. Girls, however, drink more wine, showing a frequency of 57.1%. As for the consumption of beer, it is observed there is a higher prevalence among boys (24.8%) (Table 4).

Table 5 shows that, over the last 12 months, the most frequent disorders experienced by the adolescents following alcohol consumption were: physical sickness (51.1%), fights (20.6%) and general accidents (9.9%).

Table 5 - Absolute and percentage distribution of disorders reported by adolescents who experienced complications after drinking alcohol over the last 12 months, by gender - Embu, São Paulo - Brazil - 2006-2007

Variables	Male		Female		Total		p Value
	F(n)	Fr(100%)	F(n)	Fr(100%)	F(n)	Fr(100%)	
Experienced any complication							0.206
Yes	76	24.4	65	20.2	141	22.3	
No	235	75.5	256	79.8	491	77.7	
Disorders							0.703
Accidents	8	10.5	6	9.2	14	9.9	
Fights	15	19.7	14	21.5	29	20.6	
Physical sickness	39	51.3	33	50.8	72	51.1	
Missed school	6	7.9	6	9.2	12	8.5	
Ended a relationship	1	1.4	60	0	1	0.7	
Sleepiness	0	0	2	3.1	2	1.4	
Unspecified	7	9.2	4	6.2	11	7.8	

Regarding the situations in which the adolescents usually drink, the highest frequency was at parties (72.3%), also 5.2% reported having the habit of drinking with their relatives, 3.9% with their friends, 1.7% at home and 0.9% in cases they experience a mood swing.

As for reasons reported as responsible for influencing the adolescents' decision to drink, the factors that stood out were their own desire (30.7%) and the curiosity (20.9%) towards drinking. Also regarding this item, the following were reported: influence from peers (11.8%), family environment (5.5%), to socialize better (3.6%), thirst (0.9%), stress (0.3%) and only 0.2% reported being influenced by the media.

When addressing the factors that influenced their decision to smoke, most reported they decided on their own (23%) without any external influence. The other reports, however, showed a significant prevalence of influence from peers (17.6%) and influence from relatives who smoked (12.2%). Other alleged reasons were: curiosity (9.5%), stress (6.8%), influence of the environment (4%), because it is a fad (1.3%), to relax (1.3%), because it is addictive (1.3%) and 1.3% because it is prohibited.

Regarding the places where they obtain alcoholic beverages, a marked frequency of 32.3% of adolescents who consumed alcohol over the last 12 months reported preferring the domestic environment for that consumption. Other places with high frequency rates were: 19.0% at parties, 16.5% at a bar, 11.6% at a market, 1.9% at a bakery, 1.4% at friends' house, 0.5% at a relative's house and 0.3% at school.

DISCUSSION

The present study data were specifically based on adolescents living in Embu, a medium-sized city located in the metropolitan region of São Paulo. Embu has a population of 218,535 of which 40% are 20 years old or younger. The area is strongly affected by high rates of unemployment, violence and social exclusion, which reflects on high rates death by external causes, mostly homicides, among adolescents and young adults.

As previously emphasized, adolescents have a high chance of becoming involved with licit drugs, especially alcohol, which stands out due to its high prevalence and the fact that adolescents initiate alcohol use at a younger age, followed by tobacco.

In the study sample, the tobacco use rates were close to those observed in the 5th National Survey on the Consumption of Psychotropic Drugs among Students of Public Schools of Primary and Secondary Education in the Southeast, which presented an estimated 4.1% for frequent tobacco use[5]. Regarding the distribution of smokers by gender, the present study found there was no significant difference among male and female smokers. The referred data differ from those of a national study performed in the city of Pelotas in 2002, which found a higher rate for girl smokers (16.2%)[13].

The fact that both genders have a similar rate for tobacco use make us (re) consider new public health policies aimed specifically at the care to possible health complications in the female population.

International literature presents data regarding the smoking behavior of women also point at an increase in their tobacco use rates, mainly from the 1960's with the emergence of feminist movements in some Latin American countries[14].

The analysis regarding the fact that the studied adolescents had used alcohol at some point of their lives found lower rates compared to the study performed among students of both genders in São Paulo in the year 2004, which reported that 66.2% of boys had used alcohol at some point of their lives, against 74.1% of the girls[5]. The latest survey by the Home Survey performed by CEBRID[4], however, found that among individuals in the age group of 12 to 17 years living in the Southeast, 60.8% had used alcohol at some point on their lives, with 55.5% of that total corresponding to males and 60.4% to females, which agrees with the findings of the present study.

It should be emphasized that there is a statistically significant association between gender and having used alcohol at some point of life, with girls showing higher prevalence than boys.

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It should be emphasized that there is a statistically significant association between gender and having used alcohol at some point of life, with girls showing higher prevalence than boys. This data could be analyzed considering the natural cycle of human development, in which girls reach puberty about 2 years before boys[8,9], culminating in the adolescents' search for new experiences and social interaction with older individuals, thus allowing them to have an earlier contact with alcohol.

Regarding the average age of initiating their use of licit drugs (alcohol and tobacco) the present study found lower average rates, thus showing an earlier initiation of licit drug use among young people compared to the data from[5].

An early initiation of illicit drug use, under the age of 5 years for alcohol and ten for tobacco, represents a serious public health problem, as early initiation in alcohol and tobacco use increases the cases of further drug addicts[3,5].

Alcohol use among adolescent shows a clear relationship with their current age group and education level. Therefore, the older they are the higher the chance of having used alcohol at some point of their lives.

The same fact was observed in an international study, which also found that alcohol use among adolescents increased with age as well as with the school grade they were attending[15].

The approach about health risks and hazards due to indiscriminate use not only of alcoholic beverages but also tobacco among adolescents must be considered when plan-

ning public health policies, with preventive actions starting as early primary school, aiming to avoid further complications to the health of those individuals.

The religion of the adolescents is also one of the determining factors for the consumption of alcoholic beverages, with lower use among students belonging to more conservative groups, such as Evangelics. This same pattern of behavior regarding the use of alcohol over the last months related was related with the adolescents' religion, showing that alcohol use had a prevalence of 34% among Spiritualists, 28% among Catholics and 14% among Evangelics, which agrees with the data from the present study[16].

The consumption of alcohol over the last 12 months revealed similar rates for girls and boys, with no difference in terms of frequency or amount of alcohol consumed in the referred period. Regarding this issue, there are currently several statements by both national and international researchers reporting that the idea that men drink and/or smoke more than women is an outdated concept in today's post-modern society, as the female population is, nowadays, a social group with growing rates for the use of psychotropic substances, especially alcohol and tobacco[17].

The preference for wine by both girls and boys may be explained by a few of its particular characteristics, such as: its sweet taste, it is an ingredient necessary for preparing various cocktails, it is of easy purchase, can be bought in large amounts and at accessible prices.

Among the disorders that occurred after drinking alcoholic beverages over the last year, the present study found different data from that obtained in the 2nd Home Survey[4], which points at discussions (2.9%) as the main complications due to the consumption of alcohol. Specifically for the age group of 12 to 17 years, in the referred survey 1.9% of participants reported falls, 1.5% had hurt someone, 1.7% got hurt, 1.7% had aggressive behavior and 3.4% had discussions under the influence of alcohol[4].

Among the situations reported by the adolescents as being opportune for alcohol use, the present study findings corroborate with those found for students from Paulínia[18], as well as for students living at a University of São Paulo student housing facility[19], which refer to the high prevalence of alcohol use at parties.

Regarding the factors that adolescents report as having an effect on their decision to smoke, one important data is the high prevalence of friends and relatives who smoke, which add up to 29.8%, thus showing that tobacco use among young people has a synergism with those surrounding and interacting with them. Adolescents are extremely vulnerable to the environment they live in, as they are experiencing a period of intense transformation, seeking a new identity. To do this, they absorb and share tendencies, customs and behaviors not only with the group of peers they wish to become a part of, but also by those considered their family, and may thus use licit drugs (alcohol and tobacco) during that period.

Based on the present study findings, it is important to notify the non-compliance with Brazilian legislation (Article 81 of the Child and Adolescent Statute) that forbids selling alcoholic beverages to children and/or adolescents[5].

The fact that purchasing alcoholic beverages is easy was also reported by researchers of the newspaper *Estado de São Paulo*, which stated that the chances of a commercial facility not selling alcohol to an adolescent are minimal[7]. Another study on selling alcohol to minors, performed in the interior region of the state of Sao Paulo, reported even more alarming data showing that only 1% of the adolescents who participated in the study were unable to purchase alcoholic beverages[18].

CONCLUSION

The studied population presented low rates for tobacco use and high rates for alcohol use, with early initiation of both. The referred data show a significant relationship with the age and education level ($p<0.001$), in which the older they were or the higher the education level, the more frequent the use of alcoholic beverages. We found that the consumption of alcohol is lesser among religions that are more conservative; and there is a high prevalence of alcohol use over the last 12 months among both genders ($p>0.05$); the frequency of consumption is considered occasional and at small amounts by girls and boys ($p>0.05$); wine is the adolescents' preferred beverage; the main disorder after drinking is physical sickness for both genders ($p>0.05$); it is easy for them to obtain and/or buy alcoholic beverages, and consumption occurs mainly at parties with friends or at home with relatives.

The information obtained among primary and secondary school students from the region of Santo Eduardo and Santa Emília, in Embu, will help systemize and implement preventive and educational activities about licit drug use, which will be offered to adolescents living in the areas covered by the University Extension Project *Corporeality and Health Promotion*.

Hence, we found that actions involving adolescents for health promotion and preventing the use of licit drugs (alcohol and tobacco) should be performed since primary education, thus avoiding further complications and hazards to the health of these individuals, and reducing further public expenses with hospitalizations, rehabilitation and treatments for drug addicts.

REFERENCES

1. Carlini EA, Galduróz JCF, Noto AR, Nappo SA. I Levantamento Domiciliar sobre o Uso de Drogas Psicotrópicas no Brasil: estudo envolvendo as 107 maiores cidades do país, 2001. São Paulo: CEBRID/EPM; 2002.

2. Rosemberg J, Rosemberg AMA, Moraes MA. Nicotina: droga universal. São Paulo: SES/CVE; 2003.

3. Laranjeira R, Pinsky I. O alcoolismo. São Paulo: Contexto; 1998.

4. Carlini EA, Galduróz JCF, Noto AR, Nappo AS, Fonseca AM, Carlini CM, et al. II Levantamento Domiciliar sobre o uso de Drogas Psicotrópicas no Brasil: estudo envolvendo as 108 maiores cidades do país, 2005. Brasília: SENAD; 2007.

5. Galduróz JCF, Noto AR, Fonseca AMF, Carlini EA. V Levantamento Nacional Sobre o Consumo de Drogas Psicotrópicas entre estudantes do Ensino Fundamental e Médio da Rede Pública de Ensino nas 27 Capitais Brasileiras, 2004. São Paulo: CEBRID/EPM; 2005.

6. Brasil. Ministério da Saúde. Instituto Nacional de Câncer. Vigilância de tabagismo em escolares: dados e fatos de 12 capitais brasileiras. Brasília; 2004.

7. Romano M, Duailib S, Pinsky I, Laranjeira R. Pesquisa de compra de bebidas alcoólicas por adolescentes em duas cidades do Estado de SP. Rev Saúde Pública. 2007;41(4):495-501.

8. Aberastury A, Knobel M. Adolescência normal. Porto Alegre: Artes Médicas; 1981.

9. Cambor R, Millman RB. Abuso de álcool e drogas em adolescentes. In: Lewis M. Tratado de psiquiatria da infância e adolescência. Porto Alegre: Artes Médicas; 1995. p. 749-67.

10. Anaya-Ocampo R, Arillo-Santillan E, Sanchez-Zamorano LM, Lazcano-Ponce E. Bajo desempeño escolar relacionado con la persistencia del tabaquismo en una cohorte de estudiantes en México. Salud Publica Mex. 2006;48 Supl 1:17-29.

11. Manzanera R, Torralba L, Martín L. Música y drogas en la movida del fin de semana. Rev Adolesc Latinoam. 2002;3(1):14-20.

12. Gil AC. Métodos e técnicas de pesquisa social. São Paulo: Atlas; 2006.

13. Horta RL, Horta BL, Pinheiro RT, Morales B, Strey MN. Tabaco, álcool e outras drogas entre adolescentes em Pelotas, Rio Grande do Sul, Brasil: uma perspectiva de gênero. Cad Saúde Pública. 2007;23(4):775-83.

14. Siva VLC, Koifman S. Smoking in Latin América: a major public health problem. Cad Saúde Pública. 1998;14 Supl 3:99-108.

15. Pitkanen T, Lyyra AL, Pulkkinen L. Age of onset of drinking and the use of alcohol in adulthood: a follow-up study age 8-42 for females and females. Addiction. 2005;100(5): 652-61.

16. Dalgalarrondo P, Soldera M, Corrêa Filho HR, Silva CAM. Religião e uso de drogas por adolescentes. Rev Bras Psiquiatr. 2004;26(2):82-90.

17. Kroeff LR, Mengue SS, Schmidt MI, Duncan BB, Favaretto ALF, Nucci LB.Correlates of smoking in pregnant women in six Brazilian cities. Rev Saúde Pública. 2004;38(2):261-7.

18. Vieira DL, Ribeiro M, Romano M, Laranjeira RR. Álcool e adolescentes: estudo para implementar políticas municipais. Rev Saúde Pública. 2007;41(3):396-403.

19. Zalaf MRR, Fonseca RMGS. O uso problemático de álcool e outras drogas em moradia estudantil: conhecer para enfrentar. Rev Esc Enferm USP. 2009;43(1):132-8.

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