The first time we don’t forget: Knowing the drugs experienced by high school students

Objective: this study aims to investigate the prevalence of drug use in two secondary schools in a reference municipality of the state of Ceará. Method: a descriptive and exploratory study with a quantitative approach. Data collection occurred from March to July 2019, with 562 students. For this purpose, we used the questionnaire for screening the use of alcohol, tobacco, and other substances. Results: regarding the substances the students had already tried, alcohol appears in greater proportion. In addition to alcohol, the students had also tried other psychoactive substances such as marijuana, tobacco, and hypnotics or sedatives, which all got emphasis among the substances already tried by the students. Regarding the parameters for all substances, there was a proportion ranging from 1.5% to 23.2% of students presenting need for brief interventions. Conclusion: the results presented contribute to a better understanding of the phenomenon regarding the most consumed substances, and of the harmful use or addiction patterns, so that we can plan and implement primary and secondary prevention programs inside the school context.

Descriptors: Drugs; Schools; Adolescent; Students.
A primeira vez a gente não esquece: conhecendo as drogas experimentadas por estudantes do ensino médio

Objetivo: investigar a prevalência do consumo de drogas em escolas de ensino médio de um município referência do estado do Ceará. Método: estudo exploratório descriptivo com abordagem quantitativa. A coleta de dados foi realizada no período de março a julho de 2019 com 562 estudantes. Para tanto, utilizou-se o questionário para triagem do uso de álcool, tabaco e outras substâncias. Na análise, realizou-se estatística analítica por meio do teste de qui-quadrado. Resultados: em relação as substâncias já experimentadas pelos estudantes, o álcool aparece em maior proporção. Além do álcool, os estudantes também já experimentaram outras substâncias psicoativas, em que maconha, tabaco e hipnóticos ou sedativos tiveram destaque entre as já experimentadas. Em relação aos parâmetros, para todas as substâncias, houve uma proporção variando entre (1,5% a 23,2%) de estudantes necessitando de intervenção breve. Conclusão: estes resultados apresentados contribuem para uma melhor compreensão do fenômeno no que diz respeito às substâncias mais consumidas e padrões de uso nocivo ou dependência, para que possa planejar e implementar programas de prevenção primária e secundária no contexto escolar.

Descritores: Drogas; Instituições Acadêmicas; Adolescente; Estudantes.

La primera vez no se olvida: conociendo las drogas que consumen los estudiantes de secundaria

Objetivo: investigar la prevalencia del consumo de drogas en escuelas secundarias de un municipio referencia del estado de Ceará. Método: estudio exploratorio y descriptivo con enfoque cuantitativo. La recolección de datos se realizó en el periodo de marzo a julio de 2019 con 562 estudiantes. Para ello se utilizó el cuestionario para clasificación del consumo de alcohol, tabaco y otras sustancias. En el análisis se realizó estadística analítica por medio del test de chi-cuadrado. Resultados: en relación a las sustancias ya probadas por los estudiantes, el alcohol aparece en mayor proporción. Además del alcohol, los estudiantes ya probaron otras sustancias psicoactivas, destacándose la marihuana, el tabaco y los hipnóticos o sedantes. En relación a los parámetros para todas las sustancias, se registró una proporción que varió entre 1,5% y 23,2% de estudiantes con necesidad de intervenciones rápidas. Conclusión: los resultados presentados ayudan a comprender mejor el fenómeno en relación a las sustancias más consumidas y a los patrones de uso nocivo o de dependencia, para poder planificar e implementar programas de prevención primaria y secundaria en el contexto escolar.

Descritores: Drogas; Instituciones Académicas; Adolescent; Estudiantes.
Introduction

Drugs and their use are an ancient phenomenon and involve cultural, religious, economic, political, and social issues. In many cultures, societies and times, men have consumed licit or illicit drugs. The use of drugs is a universal social phenomenon, present in all times and cultures, changing only the status that the drug has acquired over time and in each society, when its production and distribution is regulated or, on the contrary, relegated to informality and illegality, in an invariably unsuccessful attempt to avoid the consumption\(^{(1)}\).

The United Nations’ World Drug Report indicates that about 246 million people, aged between 15 and 64 years old, used some illicit drug at least once in 2013 and that approximately 27 million people are problematic drug users. Among young people, the chances of experiencing such problems are bigger, showing an increasingly earlier exposure to drugs\(^{(2)}\).

A survey aimed at evaluating the relationship between drug use and antisocial behavior with 7,176 adolescents from public schools in Brazil revealed that more than 80% of the adolescents who used alcohol and smoked cigarettes were between 14 and 17 years old\(^{(3)}\). The lifetime use of illicit drugs is four times higher among students who reported binge drinking, which consists of excessive alcohol use, with five or more alcoholic drinks at the same time or day\(^{(4)}\).

Adolescence is a significant moment in a person’s life. During this period, youngsters reject orientations, as they are testing the possibility of being an adult, of having power and control over themselves\(^{(5)}\). It is a moment of differentiation, when they “naturally” distance themselves from their families and adhere to their group of equals. If this group is experimentally using drugs, it presses them to use the drugs too. When youngsters are exposed to drugs in this most vulnerable period, they are also exposed to innumerable risks\(^{(6)}\).

The adolescent who is in a situation of vulnerability and risk may seek relief and/or protection in situations of stress, anxiety or anguish experienced in this phase by using psychoactive substances, and may become dependent or start abusing them\(^{(7)}\).

In studies with high school adolescents, the results indicated that licit substances such as alcohol and cigarettes had the highest consumption, and the use of amphetamines and anxiolytics has increased in this population. This deserves attention as the former are legal substances and the latter have a consumption habit with consequences that are not so visible to society\(^{(8)}\).

A survey with 60,973 students from public and private schools in Brazilian capitals and in the Federal District revealed the seriousness of the problem of alcohol and drugs among school adolescents, showing the early exposure and the magnitude of the problem and evidencing that more than 70% have already been exposed to alcohol and about 8%, to illicit drugs\(^{(9)}\).

A study carried out in a Psychosocial Care Center for Alcohol and other drugs (Centro de Atenção Psicossocial Álcool e outras Drogas, CAPS AD) evidenced that most users undergoing treatment started using the psychoactive substance and struggling with its use during the adolescence\(^{(10)}\); this evidence is supported by several others studies that indicate this age group as the one in which it is most likely to start the consumption\(^{(11-12)}\).

The use and abuse of drugs should be one of the main concerns of society, and the school space is considered a privileged place for prevention\(^{(13)}\). In this scenario, the school is one of the most favorable spaces for strengthening healthy behaviors and resistance to drug use.

Some authors claim that preventing drug use in schools is a strategy used worldwide, as they aim to promote health among young people. The school is one of the places where these young people spend time together for a considerable period of time, with significant exchanges and learning\(^{(14)}\).

After this contextualization, the guiding questions are as follow: What are the main drugs used by the students from the schools studied? What is the prevalence of the severity indexes of substance use defined by ASSIST in schools? In this context, this study aims to investigate the prevalence of drug use in high schools in a reference city in the state of Ceará.

Method

This is a descriptive and exploratory research, using a quantitative approach, carried out in two high schools in the reference city of Sobral, in the state of Ceará; which was classified as a city with high levels of serious problems related to drugs\(^{(15)}\). To protect their identities, the schools were named (X) and (Y).

Data collection was carried out from March to July 2019 with 562 high school students, 259 from school (X) and 305 from school (Y); to delimit the collection, the researchers calculated the qualitative variable assuming a finite population, since school X had 380 students and school Y, 470 students; for this, they fixed a significance level of 99%, a proportion of 50%, and absolute error of 5%, totaling 242 for school X, and 276 for school Y. It is noteworthy that about 7% more than the proposed number was collected, in order to reduce sample loss.

The students were selected by being present at the time of collection and having parental consent to participate in the research; those who had some cognitive impairment or deficits that hindered
communication and filling of the questionnaire were excluded (they participated, but were later excluded when the researchers notice limitation in communication and multiple unfilled variables).

To this end, a questionnaire was used to screen the use of alcohol, tobacco, and other substances (ASSIST screening test version 3.1 – WHO) validated for Brazil"16, already used in several research studies in the Brazilian territory. It is a structured questionnaire with eight questions about the use of nine classes of psychoactive substances (tobacco, alcohol, weed, cocaine, stimulants, sedatives, inhalants, hallucinogens, and opiates). The questions address the frequency (lifetime use and use in the last three months), problems related to the use, concern about the use of people close to the user, impairment in performing expected tasks, unsuccessful attempts to cease or reduce consumption, feeling of compulsion, and injection drug use"17.

In ASSIST, the scores of the answers vary from 0 to 33 points and the total score of each psychoactive substance was used to perform the statistical tests. The levels range from occasional use to abuse and addiction. The range from 0 to 3 is considered indicative of occasional use, scores from 4 to 26 indicate abuse, and 27 or more points indicate addiction. It is worth mentioning that the score to assess the pattern of alcohol consumption is different from the rest of the substances. For alcohol, a higher tolerance is considered, with scores between 0 and 10 as an indication of occasional use; 11 to 26 as an indication of abuse; and scores of 27 or more suggesting dependence"17-18.

The analysis of the association between the schools and the socio-demographic characteristics, substance used, and the intervention method was carried out using the Chi-square and likelihood ratio tests. For these analyses, p<0.05 was considered statistically significant. The data were processed using SPSS 20.0, license number 10101131007.

The study was guided by Resolution 466/12"19, which establishes guidelines for studies with human beings, and was approved with Opinion No. 2,989,395.

**Results**

Drug use is one of the main concerns of society and the school is considered a privileged space for prevention; therefore, it is necessary to know the profile of the students to intervene according to the needs of this public. Therefore, the students’ socio-demographic data, presented in Table 1, were evaluated.

Table 1 – Distribution of the number of students according to schools and characteristics such as gender, age (years old), year/grade, marital status, and religion (Sobral, Ceará, Brazil, 2019)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>School X</th>
<th>School Y</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>121</td>
<td>175</td>
<td>0.012</td>
</tr>
<tr>
<td>Male</td>
<td>138</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>Age (years old)</td>
<td></td>
<td></td>
<td>0.006</td>
</tr>
<tr>
<td>14</td>
<td>43</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>96</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>62</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>58</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Year/Grade</td>
<td></td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td>1st year</td>
<td>112</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>2nd year</td>
<td>89</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>3rd year</td>
<td>58</td>
<td>135</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
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</tr>
<tr>
<td>Single</td>
<td>238</td>
<td>299</td>
<td></td>
</tr>
<tr>
<td>Married/Stable union</td>
<td>21</td>
<td>7</td>
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<td></td>
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</tr>
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<td></td>
</tr>
<tr>
<td>No</td>
<td>36</td>
<td>43</td>
<td></td>
</tr>
</tbody>
</table>

* of the Chi-Square test

It was noted that gender, age, grade, and marital status show a statistically significant difference when comparing between schools (p<0.05), in which the male gender (53.3%) was predominant in school X; while, in school Y, the majority were female (57.4%).

Regarding age, 15-year-old adolescents are in greater numbers at school X, with 37.1%, and 16 year olds appear in greater proportion at school Y, with 33.3%. Freshmen made up the largest number at school X, with 43.2%, and at school Y there was a greater number of seniors (44.1%).

Regarding marital status, most students from both schools were single. With respect to religion, there was no statistically significant difference between schools X and Y, in which most students reported having a religion.

The assessment of drug use in the schools showed the following results (Table 2).

Table 3 reveals that only the use of alcohol, weed, and cocaine/crack showed a statistically significant difference when comparing schools X and Y, with p<0.05. As for alcohol, 59.8% had already consumed it at school X, and 76.1% at school Y. Regarding weed, 28.6% tried it at school X and 12.7% at school Y; also 5.0% used crack at school X and 1.3% at school Y.
From these data, the researchers investigated the ASSIST intervention methods indicated for students according to the schools, which are presented in the table below (Table 3).

In order to better explore the severity of the participants’ involvement with the substances, the raw scores were coded according to the cutoffs recommended by ASSIST. These cutoffs describe the quantities of substances consumed by the students and to what extent this use is already harmful, resulting in three possible categories, in increasing order of severity: a) without the need for intervention, b) with the need for brief intervention, and c) need for intensive intervention.

In this sense, a statistically significant difference was observed when comparing the schools regarding interventions for the use of alcohol, weed, cocaine/crack, and inhalants. It can be verified that alcohol (1.9%), tobacco (0.8%), weed (0.4%), crack/cocaine (0.4%), and inhalants (0.4%) at school X need intensive intervention. However, in all the substances there was a proportion varying from 1.5% to 23.2% regarding the intervention. However, in all the substances there was a proportion varying from 1.5% to 23.2% regarding the intervention. However, in all the substances there was a proportion varying from 1.5% to 23.2% regarding the intervention. However, in all the substances there was a proportion varying from 1.5% to 23.2% regarding the intervention.

**Discussion**

Conducting this diagnosis in the school context is essential to create actions to promote mental health, focusing mainly on the encouragement of healthy behaviors. The socio-demographic characteristics of high school students in other studies are very similar to the results found in this scenario(4,20).

A survey with 1,009 elementary and high school students in 20 public schools in the city of Aracaju, state of Sergipe, revealed similar socio-demographic characteristics, in which 56.2% were female and 41.5% were male, and the majority were between 15 and 17 years old(20). In another study conducted in São Paulo,
the age of the students ranged from 14 to 18 years old, with a mean of 14.8 \cite{21}.

With respect to the substances already tried by students at schools X and Y, alcohol appears in a greater proportion. This result is in line with the ones found in another study, which identified alcohol abuse in 13.7% of the Brazilian population, a figure considered high by the authors\cite{22}.

In the study conducted with students from public and private schools, regarding the consumption of alcohol at least once in their lives, 91% said they had already tried alcohol\cite{23}. The authors state that family and culture contribute to the early consumption of alcohol, since the consumption of alcoholic beverages is a custom of most cultures, and is linked to festivities, traditions, and religious ceremonies\cite{24}.

Furthermore, it is emphasized that drug use during adolescence is considered a complex problem, in which individual, family, and social aspects should be considered, especially with an emphasis on social groups that influence the acquisition and maintenance of this and other risk behaviors\cite{25}.

In this sense, it is highlighted that Brazil is a country where violence compromises the life of the youngest population. The first cause of death in the 12 to 29-year-old age group is due to external causes, represented by homicides and traffic accidents. In both situations, the use/abuse of alcohol and other drugs has a prominent role in the dynamics of these causes\cite{26}.

In the meantime, it was evidenced that, in addition to alcohol, students from both schools investigated have also tried other psychoactive substances, in which weed, tobacco, and hypnotics or sedatives stand out. In a study carried out in the state of Alagoas, the five substances most used in the "lifetime" were the following: alcohol, with 79.6%; energy drinks, with 25.6%; cigarette, with 24.6%; solvents, with 14.7%; and anxiolytics, with 10.1%\cite{7}.

The need for a brief intervention in both school X and school Y suggests the magnitude and importance of actions to prevent drug abuse. These results provide evidence to create more assertive intervention strategies regarding drug abuse and dependence among young people in high schools. The results also made it possible to identify which substances are consumed and their levels of need for intervention in the school context.

In a study on social representations of teachers about the abuse of alcohol and other drugs during the adolescence, it was noticed that educators presented negative and stigmatizing representations on the topic of drug abuse prevention in the school environment\cite{28}. The authors indicate that the social representations about drug abuse are inserted in a web of meanings about drugs and adolescence that may be related to few prevention initiatives in the school context. Another study also revealed a predominance of negative and stigmatizing beliefs and attribution of the use of psychoactive substances to moralization\cite{24}.

The topic of drug use/abuse prevention in the school context has several facets, and the main aspect is directly related to the difficulty that teachers experience in discussing this theme in depth. In this context, it is emphasized that, to think about health promotion in the school setting, it is necessary to understand education beyond a process of socialization and integration only, but concomitant to a path from which normative systems and values are built for life, thus marking its political dimension\cite{13}. Prevention work should be linked to a comprehensive proposal, in which drug use must be discussed in a broader health context.

Thus, affective education focusing on the student’s personality is the main method to use in the educational approach to prevent the use/abuse of drugs in the schools. Affective education advocates the change of personal factors that are seen as risks for drug use, exploring extreme situations. First, self-knowledge, self-esteem, self-assertion, interpersonal relationships, the ability to deal with anxiety, the ability to decide and deal with groups, the ability to resist group pressures, and verbal communication should be prioritized\cite{27}. It is also important to strengthen resilience, knowing how to say no, solidarity, belonging, knowing how to listen, autonomy, creativity, respect for differences, and values. And, when necessary, to reduce anxiety, helplessness, vulnerability, insecurity, stigma, and prejudice.

In this sense, the Statute of Children and Adolescents and the National Policy of comprehensive care for users of alcohol and other drugs stand out, with guidelines that aim at strengthening networking, intersectoriality, guarantee of patient access and participation in the treatment, with some specificities for adolescents in the prevention of advertisements, commercialization, and accessibility to this population, seen as the most vulnerable, as well as guaranteeing the rights to a healthy life and prevention of drug use, with support from public and private institutions\cite{29}.

**Conclusion**

The results contribute to the understanding of the phenomenon with regard to the most consumed substances, patterns of harmful use or dependence, as well as to expanding the possibilities of planning primary and secondary prevention programs in the school context.

Therefore, the results showed the main substances used by the students, signaling the intervention levels according to those proposed by ASSIST (Alcohol,
Smoking, and Substance Involvement Screening Test). Now both schools face a new challenge and, under this circumstance, educating for prevention presents itself as the best alternative for tackling drug use among students.

In addition, it is highlighted that the study made it possible to expand the discussion and to document the use of drugs in the school context, which requires continuous actions to prevent drug use and aggravations in this context, since adolescence is observed to be the age group most susceptible to start consumption, demanding, therefore, inter-sectoral public policies that involve social assistance, education and above all, health, with effective strategies, as it is a complex and multi-faceted topic.

However, this study has limitations that should be highlighted: when it comes to verifying the consumption of psychoactive substances within educational institutions, students who are more seriously involved with drugs may no longer attend classrooms or be systematically absent, and were not encompassed by the study. Another limitation is the veracity of the answers, since some students may have denied the use/consumption even though their anonymity was emphasized and guaranteed.

References

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Authors’ contributions


Conflict of interest: The authors have stated that there are no conflicts of interest.