

ADOLESCENCE AND THE CONSUMPTION OF PSYCHOACTIVE SUBSTANCES: THE IMPACT OF THE SOCIOECONOMIC STATUS

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Recent studies have pointed that it is necessary to define the impact of specific dimensions of the social-economic context that can work as risk factors regarding drug addiction. This study aimed to verify potential relationships between the drug addiction during adolescence and the social-economic level. A total of 568 adolescents participated in this study answering an anonymous self-filled questionnaire. The analyses involved the description of the variable distribution in the sample and statistical analyzes to determine the differences found. Contrary to the common sense, adolescents from the higher social classes presented a significant higher perceptual of alcohol, tobacco, weed and solvent consumption when compared to their counterparts from lower social classes. These data suggest the importance of studies that seek to clarify the possible influences of the social-economic status on the consumption of drugs among adolescents.

DESCRIPTORS: adolescent; substance-related disorders; street drugs; public health; health promotion

ADOLESCENCIA Y EL USO DE SUSTANCIAS PSICOACTIVAS: EL IMPACTO DEL NIVEL SOCIOECONÓMICO

Estudios recientes han acentuado que es necesario precisar el impacto de dimensiones específicas del contexto socioeconómico que pueden funcionar como factores de riesgo en relación al uso de drogas. El objetivo de esta investigación fue verificar las posibles relaciones entre el uso de drogas en la adolescencia y el nivel socioeconómico. Participaron 568 adolescentes, que contestaron a un cuestionario anónimo de auto relleno. Contrario las expectativas del senso común, los adolescentes de las clases más altas presentaron un porcentaje perceptiblemente mayor de uso del alcohol, tabaco, marihuana y solventes en la vida en comparación con sus pares de las clases más bajas. Estos datos sugieren la importancia de los estudios que buscan clarificar las influencias posibles del estado socioeconómico en el consumo de drogas entre los adolescentes.

DESCRIPTORES: adolescente; trastornos relacionados con sustancias; drogas ilícitas; salud pública; promoción de la salud

ADOLESCÊNCIA E USO DE SUBSTÂNCIAS PSICOATIVAS: O IMPACTO DO NÍVEL SOCIOECONÔMICO

Estudos recentes têm enfatizado que é necessário precisar o impacto de dimensões específicas do contexto socioeconômico que pode funcionar como fator de risco em relação ao uso de drogas. Objetivou-se, com esse estudo, verificar possíveis relações entre uso de drogas psicoativas na adolescência e nível socioeconômico. Participaram 568 adolescentes que responderam questionário anônimo de autopreenchimento. As análises envolveram a descrição da distribuição das variáveis na amostra e análises estatísticas para determinar as diferenças encontradas. Contrariando expectativas do senso comum, adolescentes das classes média/média superior apresentaram percentual significativamente maior de uso, na vida, de álcool, tabaco, maconha e solventes, quando comparados com seus pares das classes baixa/baixa inferior. Esses dados sugerem a importância de estudos que busquem clarificar as possíveis influências do status socioeconômico sobre o consumo de drogas entre adolescentes.

DESCRIPTORES: adolescente; transtornos relacionados ao uso de substâncias; drogas ilícitas; saúde pública; promoção da saúde

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INTRODUCTION

Currently, the study on human development presents several theoretical-methodological perspectives, each of which seeks to explain, from a different focus, the dimensions that must be prioritized to understand an individual's adaptive processes along the evolution cycle. However, new studies are needed that emphasize the development of children and adolescents exposed to adverse situations, like those living in poverty for example. There is a need to better understand the psychosocial aspects involved in this context, as well as the implications of these experiences along children's and adolescents' life cycle⁽¹⁾.

Poverty is an omnipresent phenomenon in the globalized capitalist world we live in, reaching alarming levels in some regions of the planet. It is often characterized as an evolution of the historical and structural relationships of opposition between classes' interests and, thus, result from an economic phenomenon configured in the social and political issue derived from the antagonism of the relations between capital and labor.

However, despite the tendency to see poverty at a macro systemic level, reducing it to the material dimension of economic misery, the effects it generates on the routine of human groups are immense. The poverty condition can constitute a constant and real threat to child and adolescent well-being as it limits their development opportunities, leading, in certain circumstances, to a situation of affective misery⁽¹⁾. This is so because economic misery is a potential generator of a series of risk contexts for the psychosocial development of individuals who are going through a cognitive and emotional maturation process, constituting adverse factors related to social exclusion experiences. The different situations of privation of material conditions of subsistence can lead to severe restrictions in the supply of individual basic needs, including affective, cognitive and social ones.

In the family context, these risk elements reflects on marital ties and also contribute to increased conflicts between parents and children, which directly affects the relationship dynamics between them⁽¹⁾. The lack of a quality family relationship interferes with a person's healthy development process and can be considered a risk factor for children and adolescents in terms of, for instance, the abusive use of psychoactive substances and delinquency⁽²⁾.

Children and adolescents who are raised in an environment that constitutes a threat to their psychological health can become vulnerable when facing certain routine situations, especially adverse occurrences. However, not all individuals who experience risk situations also present emotional and/or behavioral problems⁽¹⁾, which evidences the multidimensionality and plasticity of adaptive processes.

In this sense, a phenomenon that permeates these issues and that became a concern, both to the scientific community as well as to the society in general, especially in the last decades of the twentieth century, is the consumption of drugs among adolescents, who have presented high prevalence and increasingly early use⁽³⁻⁶⁾. In the face of this reality, the abuse of psychoactive substances in adolescence has constituted a serious social and public health problem in the Brazilian reality as well as in other countries⁽⁶⁻⁸⁾, and has spread across the planet.

Additionally, the first contact with drugs generally occurs in adolescence, a stage of the developing cycle marked by multiple and profound changes at physical and mental level, which make the adolescent more vulnerable from the psychological and social point of view⁽⁹⁻¹¹⁾. However, despite the fact that adolescents are viewed as a risk group in terms of psychoactive substance use, the factors that can make them use drugs are diverse. The main ones are related to individual and social characteristics, the latter of which includes the collectiveness, family and peer groups⁽⁹⁾.

Risk and protection factors regarding drugs use are related to six life domains (individual, family, school, media, friends, and the community), which present mutual relations. Each research on this theme emphasizes certain variables (for example, gender, age, socioeconomic level, school performance, work, drugs use in the family, among others)⁽⁹⁾.

Based on this framework, some studies were performed to verify the potential relationship between social classes and the use of psychoactive substances in adolescence^(9,12). However, the findings evidenced that there were no significant differences regarding alcohol and tobacco use between social classes⁽¹²⁾, though there were some differences in the use of other substances^(8,13). A study verified that the use of these substances in life were higher among more favored economic classes⁽⁸⁾. Another investigation with 478 adolescents from primary and secondary schools

showed that the consumption of illegal substances was higher among middle than lower class adolescents⁽¹³⁾.

In the face of this scenario, this study aimed to verify potential relationships between the use of psychoactive substances in adolescence and socioeconomic level.

MATERIAL AND MÉTHOD

This is an epidemiological, exploratory and descriptive cross-sectional survey⁽¹⁴⁾. The target population was composed of adolescents between 14 and 20 years old, who were attending public and private secondary schools in São Carlos, a city with around 192,923 inhabitants in the interior of São Paulo, Brazil. Because of the high number of adolescents who met the established profile, a representative sample was selected for this study. For the sample selection, the method of probabilistic and stratified (considering as strata different regions of the city, defined by certain socioeconomic characteristics, where the schools were located) sampling by conglomerates (schools were selected by pooling) was adopted⁽¹⁴⁾.

After the project had been approved by the Research Ethics Committee at the Faculty of Philosophy, Sciences and Languages of Ribeirão Preto - USP (process n° 010/2001 - 2001.1.6.59.1), authorization was asked to the teaching institutions. The sample of adolescents who participated in the study was obtained from the list of schools provided by the Municipal Teaching Directory in two stages: in the first stage, the schools were pooled and, in the second, the classes of the previously pooled schools were selected.

A total of 620 adolescents answered the data collection instrument, and 52 were excluded from the final sample because: a) incomplete questionnaire or non understanding of the questions; b) age superior to the age limit defined for the study (20 years old). Thus, a total of 568 adolescents of both genders, between 14 and 20 years old, from different social segments - evaluated according to socioeconomic level -, who were attending secondary school, in the schools and classes previously pooled and were authorized accordingly by their parents or guardians, who signed the free and informed consent term, participated in the study. Besides the term signed by their parents, the students also signed a free and informed consent

term, directed to them, in order to participate in the research. The study was carried out between April and December, 2002.

An anonymous self-administered questionnaire was used. It was composed of 62 closed questions on participants' general data (sociodemographic data, such as gender, age, level of instruction, among others) and regarding family organization (parents' profession and level of schooling, family income, among others), besides questions that evaluated their level of knowledge on psychoactive substances and the adolescents' opinions about the use of drugs and consumption pattern. It is important to stress that the questions formulated about the use of substances were based on the instrument proposed by the World Health Organization and adapted to the Brazilian reality⁽¹⁴⁾. Additionally, the questions regarding socioeconomic level of the students' families were based on the questionnaire developed and validated in 1996⁽¹⁵⁾. The instrument was previously tested in a pilot study aiming to correct potential inadequacies and adjust the data collection procedure.

The questionnaires were applied collectively in class, without the teacher's presence, on days previously agreed with the school, teachers and students. When necessary, two new visits were performed to the school, aiming to apply the instruments to students absent during the first application, thus diminishing the index of losses due to absence. There were few cases where parents did not authorize the adolescents' participation in the study, and few students who did not want to participate. Considering that each class had on average 35 students, approximately one to two students were not authorized by their parents, which is equivalent to 3% or 6% of total students in each classroom. On the other side, a number that varies between two and three students per classroom chose not to participate in the study (approximately 6% to 8.6% of each classroom).

The average time to apply the instrument was 50 min. After its completion, the adolescents deposited it in a sealed urn. This procedure was adopted to reinforce secrecy and anonymity, assuring greater result reliability.

Data analysis was performed through the statistical program SPSS (*Statistical Package for the Social Sciences*). First, descriptive analysis was performed, which involved: a) description of the

distribution of variables in the study sample; b) Chi-square test to evaluate potential associations between the different category variables addressed in the questionnaire. Then, univariate and multivariate analyses were performed through the method of multiple logistic regression, adopting a confidence interval of 95%.

RESULTS

Psychoactive substances act directly on the central nervous system (CNS) and can cause behavioral, mood, cognition and perception alterations, and can be of legal or illegal use. According to their mechanism of action in the CNS, they can be classified in three categories: (a) depressor - cause reduction of cerebral activity, leading to relaxation, such as alcohol and sedatives; (b) stimulant - cause an increase in cerebral activity, making the surveillance state prolong, including nicotine, cocaine, amphetamines, among others; and (c) disturbing - disturb the CNS physiology, which can cause distorted perception of colors and forms, besides delusions, illusions and hallucinations, like in the case of cannabis and LSD⁽¹⁶⁾.

Table 1 presents the adolescents' characterization according to socioeconomic level. From the 568 adolescents participating in the study, those who were using or had already used psychoactive substances without medical prescription (n=134), except for alcohol and tobacco, and those who had never used any kind of psychoactive substance (n=57) were considered for this analysis, aiming to verify significant differences.

Table 1 - Characterization of the socioeconomic level of the adolescents participating in the study, considering use and no use of psychoactive substances. São Carlos, 2003

| Characteristics | Non-user | | User* | |
|-----------------|------------|------------|------------|------------|
| | F | f% | F | f% |
| A | - | - | 1 | 0.7 |
| B | 7 | 1.6 | 13 | 9.7 |
| C | 56 | 129 | 25 | 18.7** |
| D | 171 | 394 | 41 | 306 |
| E | 184 | 424 | 49 | 366 |
| F | 9 | 2.1 | 5 | 3.7 |
| NR | 7 | 1.6 | - | - |
| Total | 434 | 100 | 134 | 100 |

* Adolescents who reported the use (at least once in their lives) of any kind of psychoactive substance (except alcohol and tobacco) without medical prescription were included in this category.

** Statistically significant differences between the groups (Chi-square test) p<0.05.

The socioeconomic variable was calculated from a combination of the following socioeconomic indicators: income, number of family members, schooling, housing and family members' occupation⁽¹⁵⁾. There are six specific strata in the classification of social class, varying from category A (upper class) to category F (inferior low class).

Regarding the socioeconomic variable, considering both groups, it was verified that category E (inferior-high) presented the highest frequencies, followed by category D (middle-low). For both categories, the percentages obtained for the group of non-users were higher when compared to the group of users, though statistically significant differences were not observed. However, in category C (middle), the frequency verified for the group of users was higher when compared to the group of non-users (18.7% and 12.6%, respectively). In this case, the difference found between the two groups of adolescents was statistically significant (p<0.05), which allows us to say that there is a higher percentage of users from the middle class than non-users in this same class, among the adolescents of this sample.

Table 2 is focused on the use of psychoactive substances in life by adolescents, based on the diverse social strata reached by the study and the different types of substances focused on.

It is evidenced by the data that the use in life of alcohol is elevated in all social strata considered in the study, while there are statistically significant differences in some categories. In this sense, the data reveal that the percentage of use of alcohol in life was significant higher among adolescents belonging to middle-high and middle classes (90% and 80%, respectively) comparatively to the percentage obtained by the inferior-high (65.2%) (p<0.05).

The tendency was verified for the *use in life* of tobacco, whose percentage was significantly higher among adolescents from the middle-high and middle classes when compared with adolescents from the inferior-high class (p<0.05). On the other side, adolescents from the inferior-low class presented a percentage of use in life of tobacco higher when compared to the group of adolescents who belong to middle class, with statistically significant differences (35.7% e 32%, respectively) (p<0.05).

It was observed that adolescents from the middle-high class presented a significantly higher percentage of consumption of cannabis *in life*, compared to adolescents from the inferior-high class. On the other side, statistically significant differences were observed between the two groups. A higher

percentage of use in life of cannabis by adolescents from the inferior-low class is found in comparison to those belonging to the middle class ($p < 0.05$).

It is important to highlight that, in addition to these findings, the use *in life* of solvents presented a higher percentage among adolescents from the middle-high and middle class (40% e 23.4%, respectively) when compared to adolescents inserted in the inferior-high and inferior-low (3.4% e 14.3%) ($p < 0.05$). There were no significant differences regarding the use of the remaining substances among the groups considered in this analysis.

Table 2 - Use in life of psychoactive substances by adolescents as a function of socio-economic level and of the different drugs approached in the study. São Carlos, 2003

| Type of drugs | Socioeconomic Level (SEL) | | | | | | | | | | | | | |
|-------------------|---------------------------|-----|---------------------|----|---------------|------|---------------------|------|------------------------|------|----------------------|------|------------------|------|
| | Upper (n= 1) | | Middle-high (n= 20) | | Middle (n=81) | | Middle-low (n= 212) | | Inferior-high (n= 233) | | Inferior-low (n= 14) | | No answer (n= 7) | |
| | f | % | F | % | f | % | f | % | f | % | f | % | f | % |
| Cannabis* | - | - | 6 | 30 | 11 | 13.5 | 16 | 7.5 | 21 | 9 | 4 | 28.6 | - | - |
| Hallucinogens | - | - | - | - | 2 | 2.5 | 4 | 1.9 | 2 | 0.8 | 1 | 7.1 | - | - |
| Cocaine | - | - | - | - | - | - | 5 | 2.3 | 5 | 2.1 | 2 | 14.3 | - | - |
| Amphetamine | - | - | - | - | - | - | 6 | 2.8 | 4 | 1.7 | - | - | - | - |
| Anticholinergics | 1 | 100 | - | - | - | - | - | - | 1 | 0.4 | - | - | - | - |
| Solvents* | 1 | 100 | 8 | 40 | 19 | 23.4 | 13 | 6.1 | 8 | 3.4 | 2 | 14.3 | - | - |
| Tranquilizers | - | - | - | - | 2 | 2.5 | 5 | 2.3 | 8 | 3.4 | 1 | 7.1 | - | - |
| Opiates | - | - | 1 | 5 | 3 | 3.7 | 14 | 6.6 | 16 | 6.9 | 1 | 7.1 | - | - |
| Sedatives | - | - | - | - | 1 | 1.2 | 1 | 0.5 | - | - | - | - | - | - |
| Anabolic steroids | - | - | - | - | 4 | 4.9 | 3 | 1.4 | 1 | 0.4 | - | - | - | - |
| Álcohol* | 1 | 100 | 18 | 90 | 65 | 80 | 162 | 76.4 | 152 | 65.2 | 9 | 64.3 | 5 | 71.4 |
| Tobacco* | - | - | 13 | 65 | 26 | 32 | 48 | 22.6 | 54 | 23 | 5 | 35.7 | 3 | 42.8 |

* Statistically significant differences between groups, considering the type of substance consumed (Chi-square test), $p < 0.05$.

In this sense, the data obtained also differ from the findings of other authors⁽¹²⁾ who did not find significant differences regarding the use of alcohol and tobacco, considering the distribution of the current consumption of these substances among the various social strata.

However, in terms of the *use in life* of illegal substances, a study found that it was higher among the most favored classes⁽⁸⁾, data consistent with other researchers' findings⁽¹³⁾. According to the authors of this last study, performed with 478 adolescents from primary and secondary schools, the consumption of illegal substances was higher in the middle class than in the lower class. This fact can be justified by the higher cost of this kind of substance, comparatively to alcohol and tobacco, which makes its consumption more frequent by adolescents with higher acquisitive power. Other authors⁽¹²⁾ also noted that the consumption of illegal substances is higher among the bourgeoisie (upper and middle-high classes).

It is also important to highlight that other authors⁽¹⁷⁾ who have worked with this issue identified,

DISCUSSION

The data obtained in this study differ in some aspects from other studies that focused on the two variables in question, that is, the use of psychoactive substances in adolescence and socioeconomic level. The results are not convergent with the ones obtained in another study⁽⁸⁾, in which significant differences in the consumption of psychoactive substances and social class were not found, at least regarding *the use in life* of alcohol and tobacco, while some significant differences were found in the present study.

broadly speaking, that the consumption of psychoactive substances is higher among students with higher than among those with lower acquisitive power, data that in certain way corroborate with the other findings observed in literature.

CONCLUSION

Regarding the socioeconomic level, this study shows an increased probability of using psychoactive substances among adolescents belonging to the middle and upper classes, particularly in terms of alcohol and tobacco. These data diverge from other studies in the area, which did not identify the influence of the socioeconomic status on the consumption of drugs.

Nevertheless, the data obtained in relation to this variable point to the need for new studies on this issue, aiming to understand in a more detailed way the specific influence of the family's socioeconomic condition on adolescent behavior. This is so because, when the socioeconomic status is

investigated in studies that focus on the consumption of psychoactive substances in adolescence, the social indexes that permit the characterization of the family's socioeconomic level are evaluated by the adolescents themselves, who often do not have precise information about them (income variable for example), reporting figures that do not accurately represent reality, which can directly affect the results obtained on this question.

Likewise, a study performed in our context evidenced the difficulty in operationalizing social classes for application in epidemiological research, since the topic in question, in combination with the respondents (in this case adolescents), impose other difficulties originated from the need to use a self-applied questionnaire, and also from these adolescents' lack of information regarding their parents' job⁽¹²⁾.

In addition, it is important to stress that some studies associated the use of drugs in adolescence as a way to deal with adverse situations present in our reality. In the face of a society in process of accelerated changes, the degradation of families and a violent world that tends to deny moral and even ethical values, drug addiction emerges to the adolescent, as a strategy to evade reality and a path that, for some, seems to lead to happiness^(18,19). However, the presented data highlight that the experience of adverse situations related to poverty does not present a linear and direct relationship with the use of psychoactive substances in adolescence, since, nowadays, their consumption affects all social classes, while some of them are more consumed by the most favored classes.

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