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# Adolescents perception of psychoactive substance use in school settings. A qualitative study

Percepción de adolescentes sobre consumo de sustancias psicoactivas en entornos escolares. Estudio cualitativo

Percepção de adolescentes sobre o uso de substâncias psicoativas em ambientes escolares. Estudo qualitativo

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#### **ABSTRACT**

**Introduction.** The use of psychoactive substances in adolescents generates adverse effects on the individual, family, and development. This study aims to describe the adolescents' perception of the problems, causes, and consequences of psychoactive substance use in the school environment. **Methodology.** This qualitative, exploratory study involved the development of seven focus groups. Convenience sampling was used until data saturation. Forty adolescents from a public school in Bogota participated voluntarily, with prior informed consent and assent. A 10-question guide



on psychoactive drug use was used. Audio recordings and transcripts were subjected to inductive and interpretative analysis. **Results.** These data were classified into three previously defined categories: 1) problem, 2) causes, and 3) consequences. One subcategory emerged in the first; two subcategories emerged in the second and third. **Discussion.** Studies confirm that the causes of psychoactive substance use are domestic abuse and bullying, which generate physical and mental effects. Unlike what is reported in the literature, adolescents do not perceive their peers and family members as protecting factors. **Conclusion.** From the adolescents' perception, access to psychoactive drug use in school environments is easy and sometimes occurs through outsiders. It is a problem related to family and social relations. They highlight as causes intra-family abuse, violence, and bullying. Consequently, they perceive that academic performance, physical and psychological health are affected.

#### **Keywords:**

Adolescent; Substance-related disorders. Bullying; Academic institutions; Perception.

#### **RESUMEN**

Introducción. El consumo de sustancias psicoactivas en los adolescentes genera efectos negativos en el individuo, familia y desarrollo. El objetivo del presente trabajo es describir la percepción de los adolescentes, sobre los problemas, causas y consecuencias frente al consumo de sustancias psicoactivas en el entorno escolar. Metodología. Estudio cualitativo, exploratorio, desarrollo de siete grupos focales. Muestra por conveniencia hasta saturación de datos. Participaron de manera voluntaria cuarenta adolescentes de un colegio público de Bogotá, previo consentimiento informado y asentimiento. Guía de 10 preguntas sobre el consumo de psicoactivos. Se hicieron grabaciones de audio y transcripciones, análisis inductivo e interpretativo. Resultados. Se recolectaron datos de adolescentes entre 10 a 13 años de edad. Estos datos se clasificaron en 3 categorías definidas previamente: 1) problema, 2) causas y 3) consecuencias. En la primera emergió una subcategoría; en la segunda y en la tercera, emergieron dos subcategorías. Discusión. Estudios confirman que las causas del consumo de sustancias psicoactivas son maltrato intrafamiliar y bullying, las cuales generan afectaciones a nivel físico y mental. A diferencia de lo reportado en la literatura, los adolescentes no perciben a sus pares y familiares como un factor protector. Conclusión. Desde la percepción de los adolescentes, el acceso al consumo de psicoactivos en entornos escolares es fácil y algunas veces se da por personas externas. Se constituye en un problema conexo con la familia y de las relaciones sociales. Destacan como causas el maltrato intrafamiliar, violencia y bullying. Como consecuencias perciben afectación del desempeño académico, la salud física y psicológica.

#### Palabras clave:

Adolescente; Trastornos relacionados con sustancias; Acoso escolar; Instituciones académicas; Percepción.

#### **RESUMO**

Introdução. O consumo de substâncias psicoativas em adolescentes gera efeitos negativos no indivíduo, na família e no desenvolvimento. O objetivo deste trabalho é descrever a percepção de adolescentes sobre os problemas, causas e consequências do consumo de substâncias psicoativas no ambiente escolar. Metodologia. Estudo qualitativo, exploratório, e desenvolvimento de sete grupos focais. Amostra por conveniência até a saturação dos dados. Quarenta adolescentes de uma escola pública em Bogotá participaram voluntariamente, com consentimento informado previamente e autorização. Guia de 10 questões sobre o consumo de substâncias psicoativas. Foram feitas gravações e transcrições de áudio, análises indutivas e interpretativas. Resultados. Foram coletados dados de adolescentes entre os 10 e 13 anos de idade. Esses dados foram classificados em 3 categorias previamente definidas: 1) problema, 2) causas e 3) consequências. Na primeira, surgiu uma subcategoria; na segunda e terceira emergiram duas subcategorias. Discussão. Estudos confirmam que as causas do consumo de substâncias psicoativas são o abuso doméstico e o bullying, que geram afetações físicos e mentais. Diferentemente do que é relatado na literatura, os adolescentes não percebem seus pares e familiares como um fator de proteção. Conclusão. Na percepção dos adolescentes, o acesso ao uso de substâncias psicoativas em ambientes escolares é fácil e, às vezes, feito por pessoas externas. Torna-se um problema relacionado à família e às relações sociais. Destacam-se como causas o abuso intrafamiliar, violência e bullying. Como consequências, percebem que o desempenho acadêmico, saúde física e psicológica são afetados.

#### **Palavras-chave:**

Adolescente; Transtornos relacionados ao uso de substâncias; Assédio escolar; Instituições acadêmicas; Percepção.



## Introduction

An issue of great worldwide concern is the use of licit and illicit psychoactive substances among secondary school students, which has prompted the need to design promotion and prevention interventions from early childhood. (1).

The World Health Organization (WHO) defines the adolescent population as people between 10 and 19 (2). This age group shows behavioral, perceptional, and risk factor changes regarding the use of psychoactive substances (PAS), a risky practice with negative effects on its development (3, 4). A "PAS is a substance that is consumed to alter the way people think, behave, or feel, including tobacco, alcohol, and other substances" (5). It is essential to establish the difference between use, abuse, and dependence. According to the World Health Organization (WHO), PAS abuse is "a maladaptive model in which the individual uses these substances continuously when he or she has a problem that may be social, occupational, psychological, or physical caused by the use of that substance in situations in which it is physically dangerous." Abusive consumption is defined as a pattern that exceeds the standard of moderate consumption or the established daily volume. Meanwhile, dependence is defined as the need to consume repeated doses of PAS to feel good" (6).

Identifying which type of SPA is most frequently used in school facilities is difficult; school remains a space to experiment and exchange new substances (1). The use of alcohol, cannabis, tobacco, and other PAS has increased exponentially since the 1990s (2).

According to the Report on Drug Use in the Americas 2020 (1), There is variability in the prevalence of alcohol consumption. More than 50% of secondary school students in Argentina, Chile, and Colombia, among others, have consumed alcohol during the last year, making adolescence a critical risk period for the onset of alcohol consumption. As for tobacco use, Colombia has a prevalence of 9.5% to 15%. Marijuana use is more frequent among the adolescent and young adult population, showing a high rate among minors in the 12-17 age group; this exceeds Canada's 15% and the United States and Uruguay's 10%. In Colombia, this consumption increased from 7.7% in 2004 to 8.4% in 2016. The prevalence of cocaine use in the last year in Colombia among high school students was 1.8% to 3%, figures shared with Chile and Canada.

According to a study conducted in Bogota in 2016, adolescents between 12-17 are the group with the

second-highest prevalence of use of any illicit substance (7.4%). In terms of socioeconomic strata, the highest consumption is found in stratum 1, with 6.2%, followed by stratum 2, with 5.6%. In Bogota, marijuana is the most widely used substance, and adolescents are the second major consumers (6.7%). They present the lowest rate of tobacco and alcohol use (5.1% and 13.7%, respectively), which increases with age (7).

Cocaine is the second most used illicit substance in Bogota; 2.8% of the country's schoolchildren have used it at some point in their lives, most commonly used by students in their last year of high school. It was found to be more commonly used in private schools than in public schools; however, the differences are not statistically significant. The highest prevalence was in Bogota and the *Eje Cafetero* (Colombian coffee region) (8).

At the national level, there are other significant substance uses, such as glue (1.8%) and bazuco (0.5%), with Bogota having the highest rate of use (3% and 0.9%, respectively). Ecstasy reaches 0.8% prevalence in the country, poppers and hallucinogenic substances (LSD), 1.4% and 1%, respectively. Despite not being considered an illicit drug, energy drinks have a high prevalence of consumption in this age group; 19% reported having used them in the last year (8). Thus, the importance of understanding adolescents' perception on why a person engages in substance abuse (9).

Studies indicate that "those who begin to consume alcohol or any other psychoactive substance in early adolescence are more likely to develop long-term abuse or dependence than those who begin to consume alcohol in adulthood" (1). Over time, they may have a greater risk of adverse health effects.

PAS use is a problem that does not discriminate between ages. However, there is a greater predisposition to consume them in the schooling stage (5), their consumption starting at increasingly younger ages. Alcohol and tobacco use reaching the ages of 11 or 12 years followed one or two years later by marijuana (10).

Perception is a process of mental representation creation. Individuals make abstractions about the qualities that define the essence of observed reality, founded in a constant information flow in three senses: the habitat itself, the actions that take place there, and the perceiver's internal state. Emotions partake in this process and can modify the content of perception (11). However, they are susceptible to the social group to which the adolescents belong, their relationship with the environment, and substance consumption (12). A study carried out in Spain



found that the factors related to experimentation and substance abuse are sociocultural and environmental, the permissive social norm, and biological aspects such as sex and genetics. The family, educational environment, or peer group are part of the variables to be considered (13). The difficulty in detecting this problem involves the peculiarities of adolescent consumers, characterized by the tendency to deny and minimize consumption, the difficulty in accepting that they have problems derived from it, and their peers' pressure to maintain and normalize it (14).

A consolidative literature review on schoolchildren's perception of drug use indicates that they perceive drugs as harmful to their health. To them, smoking and consuming other substances is synonymous with "being crazy" and can contribute to antagonizing parents; tobacco is the only substance they consider acceptable. It was also found that there is a social tolerance in this population associated with their relatives' drug use. In this review, schoolchildren perceived that drugs were disruptive to the family structure and caused death (15).

Several risk factors have been identified for adolescent PAS use, including domestic violence, bullying, and poor support networks, among others (16). A study on drug consumption patterns in adolescents (4) identified that a well-functioning family unit is a protective element to avoid PAS consumption, eliminating features that make adolescents more vulnerable to consumption. This same study found that cannabis users have the highest family dysfunctionality. Another study carried out in Iraq reported that domestic violence during childhood increases feelings of stress during adulthood, which encourages the consumption of alcohol or PAS (17). In turn, having been a victim of bullying has been associated with poor psychosocial adjustment, alcohol consumption, cigarette smoking, anxiety, depression, suicidal ideation, development of antisocial personality disorder, and PAS consumption (16, 18, 19). Bullying lowers adolescents' self-esteem and makes them vulnerable to engaging in high-risk behaviors, especially in those under 18 years of age (16). Another study (20) found that attention deficit, behavioral disorder, oppositional behavior, and depression are risk factors for PAS consumption.

A neurocognitive compromise has been described in individuals who start using marijuana and alcohol in adolescence compared to those who start using it in adulthood. Anatomically, an alteration in the gray and white matter has been evidenced in the brains of these individuals. An inadequate and early neuronal activation has also been described; all this is associated with a cognitive deficit (21). Other consequences of PAS

consumption are insomnia, attention deficit, slow mental processing, alterations in working memory, poor school performance, poor decision making, and poor emotional intelligence (21).

The above considered, this article aims to describe adolescents' perception on the problems, causes, and consequences of psychoactive substance use in the school environment.

# Methodology

This qualitative, exploratory study uses focus groups as a qualitative tool. This article is a product of the project "Health promotion strategy with a Primary Health Care approach for children and adolescents in a locality of Bogota," emphasizing participatory action research.

Convenience sampling was used until data saturation was achieved (22). Forty adolescents participated voluntarily. The inclusion criteria were public school students older than 11, with more than one year in the educational institution, regardless of whether or not PAS consumers, given that there was no prior knowledge of this.

The procedure for participant selection was carried out in consensus with the educational institution, using those that met the inclusion criteria in the attendance lists of eight courses of the fifth, sixth, and seventh grades. Five students from each course were selected through a list of random numbers for participation in the focus groups.

These groups were conducted using a discussion and reflection process to achieve the adolescents' active participation (22). The work was guided by previously instructed tenth-semester medical students who led the focus groups, continuously supervised by the two principal researchers. Seven focus groups were conducted following a question guide created to identify the problems, causes, and consequences to develop the topic. A total of ten questions were presented flexibly, which were modified according to the subjects' answers. The aim was to explain and understand the PAS consumption phenomenon based on the the participants' transmitted perceptions until data saturation. Audio recordings and transcriptions were made and validated by the study's researchers.

The data analysis was carried out following the approaches by Miles and Huberman (23). The project researchers extracted the descriptors from each transcript and prepared a matrix identifying that adolescents perceive PAS as a problem in their school. The results



were categorized according to the proposed script. Subsequently, the descriptors that emerged from the participants' narratives were coded in an Excel format. In compliance with the methodological rigor of qualitative research, the research team returned to the field to confirm the information with the participants. It made the appropriate adjustments according to their perception (credibility), with the support of other researchers who analyzed the results and information interpretation and arrived at similar findings (confirmability). These results could be transferred to other educational institutions or groups with similar characteristics in the city of Bogota (transferability).

#### **Ethical considerations**

The Declaration of Helsinki ethical principles for medical research on human subjects (2013) were respected (24), and the research subjects' privacy was guaranteed, as established in the Colombian Ministry of Health's Resolution 8430 of 1993 (25). This research is considered minimal risk. Endorsement was obtained from the Ethics Committee of the School of Medicine and Health Sciences of the Universidad del Rosario through Act No. 286 of May 7, 2015. The study had the school in Bogota's authorization, the parents'

informed consent, and the adolescents' assent. The results obtained were presented at the school that was this study's object of analysis.

#### **Results**

#### Participant characteristics

The study population consisted of adolescents mostly from strata 1 and 2 of a public school located in a stratum 3 area of a locality of Bogota.

Sixty percent were males, and 40% were females, all between the age of 10 and 13 at the time of the study. All the participants had attended the school for more than one year, in the fifth, sixth, and seventh grades.

Perception of adolescents regarding PAS consumption

PAS use was considered one of the school's main problems and is mainly attributed to family and social situations. According to the three predefined categories (problem, causes, and consequences), five emerging subcategories were included (Table 1).

Table 1. Categories and subcategories of adolescents' perception of psychoactive substance use. Bogota 2017

Category	Subcategory
Problem	<ol> <li>In and around the school there is easy access to PAS and they are sometimes provided by outside adults.</li> </ol>
Causes	2. Adolescents perceive that drug use occurs because of problems at home caused by domestic violence, drug-addicted mothers, and fathers' bad example or intra-institutional problems such as bullying, heartbreak, and student failure.
	3. Adolescents use drugs because of the influence of "friends" or deception.
Consequences	4. PAS consumption affects academic performance, decreases concentration, and increases bullying among students.
	<ol><li>PAS cause damage to health by producing cancer, HIV-AIDS, or respiratory diseases, and behavioral problems.</li></ol>

**Source:** Created by the author.

#### Problem

Subcategory 1

At the school, adolescents identify the use of psychoactive substances as a problem:

"(...) drugs, bullying, fights with fists and words, which occur because of the differences that exist, bullying, and vices." (GF3E3A)



Within the institution, this consumption is observed in classrooms and rest areas, where adolescents look for secluded places that are difficult for teachers to control.

"I was once on the stairs over there, and they were trying to share drugs, cocaine." (GF1E2)

Consumption is not limited to a single psychoactive substance, but there is a great diversity of these, which adolescents consume during the school day.

"Marijuana (GF1E3)," "cigarettes, cocaine, and heroin" (GF1E2). "Oh, and also glue, *Boxer*" (glue name brand) (GF1E1), "and *perico*" (cocaine). (GF1E4)

However, students' use of psychoactive substances does not only occur within the institution. It also occurs in areas near it, where there are people who sell them at the student's break time and after class.

"(...) very bad adults who stand at the fences and wait for the children's break so that they can buy drugs from them [sic]." (GF1E1-A)

#### Causes

### Subcategory 2

The adolescents identified the use of psychoactive substances at school as a cause of both family and institutional problems. Adolescents identified family dysfunction as one of the reasons for consumption.

"(...) sometimes, when they use drugs, it is the parents' fault because the parents leave the drugs, let's say, on a table" (GF1E1-A), "(...) maybe their mother is a drug addict, they may be mistreated." (GF2E2A)

This violence within the family and society can cause adolescents to feel depressed; this leads them to use substances to forget their problems.

"(...) It can also be because sometimes there are people who, let's say, their family is killed, and they want to forget that (...)." (GF1E1-A)

This is because psychoactive substances create an emotional state that helps them forget their burdens.

However, this consumption may also be due to other adolescent problems such as emotional state alterations and their pleasure-generating capacity.

"(...) because you feel unhappy with people, or something like that; that's why they use them, to see if they can do something, but no, they can't [sic]" (GF1E1-A) or "(...) because they like it (...)" (GF2E2A).

Furthermore, situations such as bullying, academic failure, and heartbreaks lead these students to despair or rejection, which results in PAS use.

"(...) they bully a person and the person is so desperate, for example, a girl in my classroom, then she may take drugs, she can commit suicide, something like that [sic]." (GF2E3)

## Subcategory 3

The sale of PAS occurs around educational institutions, using deception as a method to induce consumption at an early age, with strategies such as giving away food, especially candy. "(...) and there are also some people who when it is Halloween take a wrapper and kind of freeze the drug and wrap it in that paper and then give it to you, and you get home to eat candy without knowing what it is [sic]" (GF1E3). Those students who consume PAS also promote this behavior in others, even going so far as using manipulation and peer pressure methods under the guise of social acceptability, which is a characteristic of adolescence.

"(...) because if they don't do it, then they are no longer their friends." (GF3E3A)

## Consequences

#### Subcategory 4

From the school-going adolescents' perception, students who consume PAS are the bullies within the institution, altering other students' behavior. These bullies also tend to have poor academic performance because they miss classes, either by evading their responsibilities within the institution or through absenteeism. To this end, they use strategies such as lying, all this based on the consumption anxiety generated by these substances.

"(...) there are some kids who don't go to school because of this, and they lie to their mothers so that they don't send them to school, they pretend to be sick, they vomit, or they're sent to school alone and go elsewhere (...)." (GF2E2A)



## Subcategory 5

Adolescents perceive that PAS consumption can harm their physical health, including skin damage, nail discoloration, chronic respiratory and neurological pathologies.

"(...) pneumonia, very serious diseases such as cancer or AIDS. Epileptic seizures (...)." (GF1E1-A)

Regarding the psychological aspect, from the adolescents' perspective, mood alterations may occur, which may lead to emotions of pleasure or sadness.

"(...) People get more depressed (...) than they get happy; they are very bipolar (...)." (GF3-A)

#### Discussion

According to the adolescents' perception, PAS use is a problem at school and its vicinities. Its leading causes are family dysfunction, subjection to bullying, academic problems, and heartbreak. These issues result in the victims becoming bullies, health problems, and poor academic performance.

The adolescents perceived that access to drugs is easy. A qualitative study conducted by Alhyas *et al.* (26) found that school is the main forum to initiate tobacco use and other drugs. Access to these drugs is achieved through friends, pharmacies, or parties where they get them for free. However, most adolescents report that the school grounds are enough to acquire drugs (26).

They perceived bullying, domestic violence, parental consumption, and social pressure as the main causes of consuming PAS. Involvement in bullying and cyberbullying is a major public health problem due to the consequences on physical and mental health; having been a bully or a victim has been associated with PAS use (16, 18, 19).

Similarly, bullying is a risk factor for PAS abuse because it lowers the adolescents' self-esteem and makes them vulnerable to high-risk behaviors, such as PAS use. Mainly, in children under 18 years of age who "experience school bullying," and "are more vulnerable to drug use, as they feel ignored, excluded, discriminated against, assaulted (...), which makes them easy prey to the consumption of such substances (...)" (16,27,28). A study conducted by Siziya *et al.* found that cannabis use at some point during a lifetime has been associated with having been a victim of bullying. It showed that

consuming this substance makes individuals more likely to be victims (29). A study involving 78,333 students in the United States found an association between victimization and PAS use (30).

Most of the adolescents in this study perceived intrafamily violence as another leading consumption cause of consumption related to abuse, violent deaths, and parental consumption. A study conducted by Horta *et al.* (31) found that more than one-third of PAS-consuming students have witnessed intrafamily violence. Tobacco consumption was 2.49 times higher in adolescents who have witnessed intrafamily violence, 49% higher in alcohol consumers, and 60% higher in the use of some illicit drug (31). Another study reported that almost all adolescents who use PAS have a poor relationship with their parents (26); lack of parental discipline is a risk factor.

A study by Molero-Jurado *et al.* showed a negative relationship between the perception of family support and the frequency of tobacco and alcohol consumption, with the family being a protective factor for the consumption of these substances. However, the adolescents in the present study did not perceive this (4). On the other hand, having friends that consume PAS is the most significant risk factor for consumption in adolescents, given that the use of these substances begins during group meetings. Similarly, being surrounded by non-consuming friends was seen as a protective factor for not engaging in these behaviors (26). This was not perceived as a risk factor by the adolescents in the present study.

A systematic review of 32 identified cohort studies, of which 13 were classified as high quality, on risk factors for the initiation of PAS use reported that the factors with the highest degree of evidence were, among others, having problematic relationships with relatives and consumption of the substance by friends (11).

The school's students perceived that a consequence of PAS consumption is a decrease in school performance due to lack of concentration. Alcohol consumption before the age of 22 years and its excessive use has demonstrated serious cognitive effects, such as decreased attention, spatial working memory, verbal memory, and decreased processing speed. Delta-9-tetrahydrocannabinol-associated neural changes have been evidenced in marijuana use before the age of 16 to 18, with more severe cognitive problems compared to adulthood. The neurocognitive changes are reduced IQ, verbal memory, decreased complex attention,



slowed psychomotor speed, and decreased neuronal functioning (24).

However, PAS consumption not only affects the academic environment it also affects physical and mental health. According to Hall et al., cannabis use is associated with increased symptoms of chronic bronchitis, heart rate, and the onset of psychotic symptoms or psychotic illness, especially if there is a family history (32). Similarly, Jouanjous et al. identified more than 619 adverse effects produced by cannabis in 200 patients, including psychiatric disorders, central and peripheral nervous effects, cardiovascular and respiratory disease, and acute intoxication (33). Fittingly, the adolescents participating in the present study perceived that PAS consumption could cause harm to their physical health, such as skin damage, nail discoloration, respiratory and neurological diseases. Similarly, at the psychological level, they perceived that they might cause mood alterations.

**Limitations:** This study's results are limited to the school context in a single Colombian region; therefore, it is necessary to carry out this type of study in other regions of the country. Another limitation was the nonuse of other data collection techniques in qualitative research to achieve data triangulation.

#### **Conclusions**

From the adolescents' perception, access to PAS use in school environments is easy and sometimes occurs through people outside the educational institution. It is a problem caused by situations related to the family and/or social and peer situations, among which intrafamily abuse, violence, and bullying stand out. Once developed, drug use consequences are perceived as affecting academic performance, physical and psychological health.

Following these findings, co-construct intervention strategies with adolescents, their families, and teachers are necessary to strengthen and empower support networks, generate resilience skills to avoid or cope with PAS use, and bolster public policies for children and adolescents, jointly with health services.

It is recommended that this type of research be conducted in other contexts and other regions of the country to generate a comparison between characteristics and results to prompt the construction of guidelines aimed preventing and managing the problem of PAS use among adolescents in the country.

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## **Conflict of interest**

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