CONSUMPTION OF PSYCHOACTIVE SUBSTANCES IN EDUCATIONAL INSTITUTIONS: AN INQUIRY INTO THE STATE OF AFFAIRS IN THE SCHOOLS OF CÓRDOBA.

Lucchese MSM, Burrone MS, Enders JE, Fernández AR.

Abstract

This study describes and analyses the consumption of psychoactive substances in educational institutions, the school environment conditions and its relation to the school standing of the students. In the first stage, a quantitative evaluation was performed, based on the records of the Second National Survey of Secondary School Students carried out in Córdoba in 2005; the second stage used a qualitative approach. A multistage probabilistic sample of 4593 students was used for the quantitative assessment. The analysis comprised summary measurements, multivariate and factorial correspondence analysis, in all cases with a significance level of $p < 0.05$. For the qualitative stage, an ethnographic approach was applied. The state schools were chosen using an intentional, cumulative and sequential sampling method. Ten in-depth interviews were carried out to gather qualitative data that was analyzed using the comparative constant method. Results evince that consumption is lower among morning-shift students and that grade repetition and behavior problems are associated to consumption of illegal drugs. Furthermore, it was detected that students in night-shift schools with low academic and disciplinary demand standards have a higher probability of consumption. It is clear that as academic standards decrease, consumption increases.

Keywords: education, adolescents, substance-related disorders

Introduction

The illegal consumption of psychoactive substances is an important psychosocial phenomenon. According to Luengo, Kulis, Marsiglia, Romero, ducGómez- Fraguela, Villar and Nieri, consumption of substances by adolescents is a public health problem with personal and social implications[1]. Against this background, educational institutions constitute a place that fosters the development of their higher psychological functions by providing them with symbolic resources to build their perception of the social world and of themselves as individuals[2,3]. Echavaría

Grajales states that the school constitutes the scene where the manners of thinking, feeling and inhabiting the world are shaped, and where a universe of cultures and identities is framed. For adolescents, schools are an important part of the changes in the process of development of their autonomy. The socialization processes that adolescents establish at school may include drug consumption; school attendance is important as a protection factor in contexts of vulnerability[4]. It is important to determine the relationship between substance consumption, school environment and the school standing of the stu-

Admission Department, School of Medical Sciences - Universidad Nacional de Córdoba. Córdoba. Argentina. Enrique Barros s/n- Ciudad Universitaria. admision@fcm.unc.edu.ar

dents. As a result of these considerations, the following questions arise: is it true that state night-shift coeducational schools, with low academic demands and lax discipline, foster drug consumption? Is it true that adolescents with behavior problems and low attendance rates are potential consumers of illegal substances? Is it true that schools with high academic and disciplinary standards, with clearly stated behavior norms, do not facilitate the consumption of psychoactive substances?

Objectives
• To describe substance consumption in youths as related to their school attendance shift, sex, and academic and disciplinary standards in Córdoba.
• To determine the relationship between school type (state or private), school standing of the adolescents and consumption of drugs.

Materials and Methods
Two approaches were used to carry out this study. The quantitative approach was used for the first stage, using the data gathered by the Second National Survey of Secondary School Students carried out in Córdoba city in 2005. For the second stage, a qualitative approach was used. The quantitative approach involved a correlational and observational analysis. The work was performed on the data recorded by the Second National Survey of Secondary School Students, using a multistage probabilistic sample drawn from a universe consisting of the entire population of students of the schools included in the Córdoba Province School Census of 2004. The sample was representative of students of the Córdoba Province aged 13, 15 and 17 years, comprising 4593 students in all. The questionnaire employed was the one designed and validated by SEDRONAR for secondary school students, consisting of 97 closed questions,

and this study focused on 13 questions, grouped according to: school, school standing of the student, and psychoactive substances consumption by students.
To assess the school characteristics, the following aspects were taken into account: type of school (state, private, and other), shift (morning, afternoon, and night), level of academic demand (high, fairly high, somewhat high, and low). As regards student school standing: sex (male, female), age (13, 15 and 17 years), grade (8th, 10th, and 12th), number of grade repetitions (none, one, two, or more), existence of behavior problems (often, sometimes, and never), and frequent absence from school (yes, no). As regards psychoactive substances consumption: whether the student did or did not consume psychoactive substances. The analysis comprised summary measurements and multivariate and factorial multiple correspondence analysis. Statistical processing of data was carried out as bivariate analysis, through categorical data (chi-squared test, Mantel Haenzel or Fisher's test), in order to determine the risk ratio and confidence intervals (CIs) for each variable under study. In all cases a significance level of $p < 0.05$ was established.
The second stage consisted of an ethnographic study. The schools (both state and privately managed state-supervised, "private" for short henceforward) were chosen by an intentional, cumulative and sequential sampling method until a point of data saturation was reached. This stage began once the results of the quantitative had been obtained. Ten in-depth interviews were carried out, with school principals, deputy principals, regents, and members of the schools technical staffs. The questions were adapted to the various situations of the educational institutions as regards consumption, school, and school standing of the students. The qualitative data thus gathered was analyzed

using the Glaser and Strauss' comparative constant method. Validation was done by means of inter-method triangulation[5].

Results

The National Survey in Córdoba comprised 4593 students. The mean age of students in the sample was 14.91 ± 0.03, with a range going from 11 to 22 years. 42.85% of students were male and 57.15%, female. When comparing the mean age of the groups stratified by sex, it was detected that male mean age was higher than female mean age, namely 14.96 ± 0.04 vs 14.87 ± 0.03 respectively (p < 0.01). As for the type of school, it was found that 54.45% of students attended state schools, the remaining being at privately managed schools, and that 73.74% of the total student population was in the morning shift.

For the relationships between school shift, sex, school academic demand, and school discipline demand, the results were as follows.

As regards the relationship between consumption and school shift, the morning shift shows less consumption than the afternoon and night shifts (62%, 72%, 88.33%, respectively; p < 0,001). Moreover, a difference was observed in the consumption of both legal and illegal substances according to school shifts, with adolescents in the morning shift consuming less than those in the afternoon and night shifts (p < 0,001). As regards monthly prevalence of some illegal drug, it was detected that for schools with a fairly high level of academic demand and discipline (p = 0.0187) students do no consume illegal drugs. Besides, it was detected that female students consume less than male students (p = 0.0273). It was also detected that night-shift schools with low academic and disciplinary demands present a higher consumption risk. As regards levels of academic demand, the

study shows that adolescent consumption increases as these levels decrease (p < 0.02). This study has detected that age is an important variable associated with consumption (p = 0.0053). Consumption was observed to increase with age.
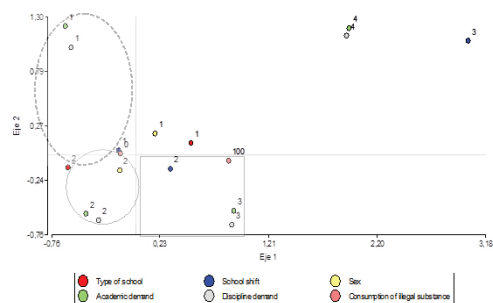

Figure 1: Multivariate analysis of life prevalence of consumption of na illegal substance, school shift, academic demand, discipline demand and sex of student.
Ref: consumption of illegal substance: 0 NO; 100 YES
Sex: 1: male; 2, female
Type of school: 1: state; 2: private
School shift: 1: morning; 2: afternoon; 3: night
Academic demand: 1: high; 2: fairly high; 3: somewhat high; 4: low
Discipline demand: 1: high; 2: fairly high; 3: somewhat high; 4: low

Figure 1 shows in the first quadrant the grouping of state school, male sex, low academic demand, low discipline demand, and night school shift. The second quadrant (broken-line ellipse) shows the grouping of high academic demand, high discipline demand, morning shift and no consumption of illegal substances. The third quadrant (continuous line ellipse) shows the grouping of private school, female sex, and fairly high academic and disciplinary demand. The last quadrant (rectangle) groups consumption of some illicit substance, afternoon shift and low academic and disciplinary demand.

Figure 2, which corresponds to the analysis of the relationship between type of

school (private or state), school standing of adolescents and drug consumption. The first quadrant (continuous line ellipse) demonstrates the grouping of males with frequent behavior problems in school and consumption of alcoholic beverages and some illegal substance. The second quadrant (broken-line ellipse) associates private schools and no repetition, with high attendance rates and no consumption of illegal substances. The third quadrant (continuous line rectangle) shows the association of female sex, no consumption of alcoholic beverages, and no behavior problems, whereas the fourth quadrant (broken line rectangle) shows the relationship among frequent school absenteeism and repetition of one grade during the course of studies.
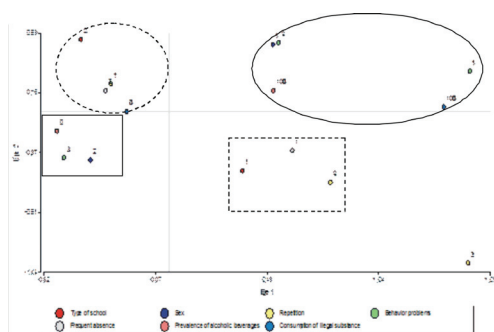

Figure 2: Multivariate analysis of type of school (private or state), adolescent school standing and consumption of drugs. (n=4593). Year 2005.
Ref: Sex: 1: male; 2, female
Type of School: 1: state; 2: private
Repetition: 1, none; 2: two; 3, two or more
Behavior problems: 1, often; 2, sometimes; 3, never
Frequent absence: 1, yes; 2, no
Illegal substance: 0: consumption; 100: no consumption
Prevalence of alcoholic beverages: 0: consumption; 100: no consumption

As regards qualitative analysis of substance consumption by adolescents, through inquiries about what and when they consume, the following statements were gathered:

"Teenagers get drunk; they pay a price in order to become part of a group. Boys and girls alike drink alcohol" (Interview N° 1)
"There is consumption, more in teenagers attending the afternoon shift than in those in the morning shift. There are some punctual cases, and the remaining ones consume marijuana. As regards alcohol, it is usual particularly on weekends, alcohol is accepted as something natural and so is marijuana" (Interview N° 2)
"Marijuana consumption has arrived in school. There are cases of students who steal pills from their parents or grandparents" (Interview N° 2)
"50% of students smoke cigarettes, between 60% and 70% consume alcohol and 3 or 4 students consume illegal substances, particularly since 2008" (Interview N° 4)
"There is consumption of and dealing in drugs in the school" (Interview N° 8)
"They consume alcohol and arrive in school already drunk" (Interview N° 2)

Alcohol is mainly consumed on weekends; this consumption is considered as something completely natural, and it is done to follow the fashion, to imitate the group peers and for the sake of fun. In two state schools, one student was reported to have entered the school in a drunken state, and another one was found in the act of consuming an illegal substance.
As regards level of academic demand, interviewees had the perception that it is variable. Some private institutions perceive themselves as demanding, and the effects of this demand can be seen in the rate of admission of their students to university. Some state schools identify their level of academic demand as normal, whereas another one declares it to be high; it was also observed that the demand may de-

pend on the teachers and the subjects they teach. Moreover, coeducational morning-shift schools were detected to have higher academic demands than those of the afternoon and night-shifts, which is related to consumption of substances, and coincides with the quantitative results of this study.

As regards levels of disciplinary demands, the following statements were identified:

"Lack of discipline does not affect the majority of students" (Interview Nº 1).

"Public policies tend to do all that is necessary to retain students; for instance, if they are absent for a total of 45 days, nothing is done (…)" (Interview Nº 2).

"We could say that discipline has not worsened since 2003/2004, but that it varies according to the teacher" (Interview Nº 3).

"An orderly class facilitates the development of activities. As for discipline, we are very demanding and fortunately, as a result of the work of monitors, order can be maintained without coercion" (Interview Nº 4).

"Monitors are in charge of both administrative and pedagogical tasks" (Interview Nº 5).

"Students enter the classroom and leave it at their will; my class starts at 8:00, but some of them arrive at 8:40… they just say "I'm coming back in a moment, I'm going to have breakfast". "They enter the classroom with pop music at a very high volume" (Interview Nº 10).

"There is no discipline demands … there is a monitoring notebook, but nothing is actually done" (Interview Nº 9).

These statements of interviewees permit to detect that discipline has changed as compared to previous years. Private schools evince a strict discipline which purports to control the class and to apply penalties in case of faults; the code of social conduct is recognizable in the development of daily school activities. State schools exhibit extremes cases as regards discipline and order, ranging from the recognition of the value of discipline and order to a complete laxity. Some schools refer the violation of norms to their code of social conduct.

Private schools tend to have a more uniform approach to disciplinary matters, whereas state schools evince more variation in the application of norms, which may result, according to the situation, in protection factors or risk factors. The variety of norms established by different educational institutions implies different behaviors of the institutions as such. Some institutions analyze discipline problems, others tend to expel students, and others privilege retention of students following ministerial policies. Flexibility in the matter of interpretation of norms may be seen in some state schools, but is not found in private schools.

As regards repetition rates, it ranges between 5% and 25% in the majority of schools. Only one school had a repetition rate of 60% from the first to the third year. Repetition rates are higher in state schools than in private schools. Re-enrolment as a result of absenteeism occurs in both types of schools, though in state schools some cases of three instances of re-enrolment were recorded for a student in a year. Repetition rates and re-enrolment are governed by provincial and institutional policies, and evince different approaches in state and private institutions. The flexible application of norms is the result of contingent problems rather than of academic long-term policies; this may eventually lead to dropping out of some students because they cannot account for the educational training they have received. Some educational policy decisions are not related to levels of academic and disciplinary demand, as they should be as a result of the state responsibility and the heterogeneity

of the educational system.

Discussions

With reference to type of school and attendance shift, this study concluded that adolescents attending morning-shift schools evince less consumption of illegal substances than those attending afternoon or night shifts, a finding that coincides with those of the study carried out by the Observatorio Hondureño[6]. As regards levels of academic demand, this study concludes that consumption by students increases as academic demand decreases, which agrees with the first comparative study on the use of drugs by the school population in Latin American countries[7]. This also coincides with the results of the work by Anneliese Dörr and her team, who found that consumers have a perception of the school as less demanding than those who do not consume, and that schools with more lax discipline Foster consumption[8]. Similarly, an article by García del Castillo states that consumption increases when students perceive the school as less demanding in matters of discipline[9]. These results are reinforced by a study carried out by CICAD, which stated that in most Latin American countries the prevalence of consumption year of any illegal substance doubles when the school is perceived by students as lax in disciplinary demands[7].

As regards school standing of adolescents and its association with consumption of psychoactive substances, it is observed that frequent absenteeism, behavior problems and repetition are linked to the consumption of psychoactive substances. Similarly, a study by Vázquez Valls and his team detected a clear relationship between drug consumption and low academic performance, high absenteeism, dropping out of school, and low educational expectations[10]. Oliveira and his team detected that the use of psychoactive substances interferes with lessons and school activities[11]. Another comparative study in Latin America found that students who get low marks and/or have repeated some school grade exhibit higher drug consumption rates than those having a better academic performance[2]. The results of the CICAD study in Latin America indicate that students who have repeated courses in school show higher rates of drug consumption in all countries[12,7]. On the other hand, the study by Vázquez Valls and his team asserts that adolescents with good marks and high involvement with their school show a higher self-esteem and consume less alcohol[13]. Caso Niebla y Hérnandez Guzmán have noted, in a study on a model to explain low school performance in Mexican adolescents, that self-esteem has a direct effect on the consumption of substances, which in turn is related to poor school performance[14].

Conclusion

It is observed that the differences in the consumption of legal and illegal substances between the students surveyed, in relation to the school shift, point to less consumption in adolescents attending the morning shifts as compared to those in the afternoon and night shifts. Repetition and behavior problems were associated to consumption of some illegal drugs by adolescents, whereas those schools that are adequately organized towards their educational goals, and having high levels of academic demand and clarity of disciplinary norms, become institutions whose adolescent students do not consume psychoactive substances.

Bibliography

1. *López Larrosa S, Rodríguez-Arias Palomo L. Factores de riesgo y de protección en el consumo de drogas en adolescentes y diferen-*

cias según edad y sexo. Psicothema. 2010; 22 (4): 568-573.

2. Estudios Nacionales sobre uso de drogas en población escolar secundaria de Argentina, Bolivia, Brasil, Colombia, Chile, Ecuador, Paraguay, Perú y Uruguay. las ONUDD, CICAD/ OEA, SEDRONAR, CONACE, CONALTID, CONSEP, DEVIDA y JND.2006.

3. Rivas Flores J. La perspectiva cultural de la organización escolar. Marco institucional y comportamiento individual.Educar.2003; 31:109-119.

4. Echavarría Grajales C. La escuela un escenario de formación y socialización para la identidad moral. Revista Latinoamérica de Ciencias Sociales, Niñez y Juventud. 2003; 1(2).

5. Paul J. Between Method Triangulation. The International Journal of Organizational Analysis.1996; 4(2): 135-153.

6. Estudio Nacional en Honduras (2005-2006) Consejo Nacional contra el narcotráfico. Observatorio Hondureño sobre Drogas. Magnitud del Consumo de Drogas en Jóvenes Estudiantes Hondureños. 2006.

7. CICAD-OEA. Jóvenes y drogas en países sudamericano: Un desafío para la política pública. Primer Estudio comparativo sobre uso de drogas en población escolar secundaria de Argentina, Bolivia, Brasil, Colombia, Chile, Ecuador, Perú y Uruguay. Primer Ed. Lima: Tetis Graf E.I.R.L; 2006.

8. Dörr A, Gorostegui ME, Viani S, Dörr B. Adolescentes consumidores de marihuana: implicaciones para la familia y la escuela. Salud Mental. 2009; 32: 269-278.

9. García del Castillo J. Género, Drogas y Futuro. Salud y Drogas. 2005; 5(002):7-10.

10. Vázquez Valls R, Ramos Herrera M, Barajas M. Consumo de droga(s) y aprovechamiento escolar la convivencia y sus problemas; microculturas juveniles en la escuela. X Congreso Nacional de Investigación Educativa. 2010.

11. Oliveira M, Ribera L, Villar M. Factores de riesgo para el consumo de alcohol en escolares de 10 a 18 años, de establecimientos educativos fiscales en la ciudad de La Paz. Bolivia (2003-2004). Rev. Latino-Am. Enfermagem [Revista em Internet]. 2005 [citado05deJunio2009]; 13(spe): 880-887.Disponibleen:http://www.revistasusp.sibi.usp.br/scielo.php?script=sci arttext&pid=S01041169697620080 00100008&lng=pt.2005000700016&lng=pt.

12. CICAD-OEA. Estudio de consumo de sustancias psicoactivas en las Américas. Washington; 2006.

13. Villarreal González M, Sánchez Sosa J, Musito Ochoa G.The role of family communication and school adjustment in adolescent´s violent behavior. En Frías Armenta M y Corral Verdugo V, eds. Bio-Psycho-social perpectives on interpersonal violence. 2010:143-165.

14. Caso Niebla J, Hernández Guzmán L Variables que inciden en el rendimiento académico de adolescentes Mexicanos. Revista Latinoamericana de Psicología. 2007; 39(3).