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CHILD MALTREATMENT AND USE AND ABUSE OF DRUGS AMONG STUDENTS IN A UNIVERSITY OF LEÓN, NICARAGUA

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ABSTRACT: This exploratory study was aimed at examining the relationship between maltreatment during childhood and the use and abuse of drugs among students in a university of León, Nicaragua. A self-administered questionnaire was applied to 368 students. The results showed that 51.6% of the participants were female, with average age of 19 years, while men were older (average of 24 years old). Among the students 22.8% had the perception of been maltreated during childhood. Negligence was more frequent among men, while psychological, physical and sexual abuse was more frequent among women. The use of drugs (licit or illicit) sometime in their lives occurred in 50.0% of the students, with higher prevalence among men. Using a chi-square analysis, it was found that sexual abuse is significantly related to drug use ($\chi^2=7.49$) ($p=.00$), but not to drug abuse. Physical abuse was statistically related with both use and abuse of drugs.

DESCRIPTORS: Drugs. Maltreatment. Childhood. Students. Universities.

MAUS-TRATOS NA INFÂNCIA E USO E ABUSO DE DROGAS ENTRE ESTUDANTES DE UMA UNIVERSIDADE DE LEÓN, NICARÁGUA

RESUMO: Esta pesquisa exploratória procurou examinar a associação entre maus-tratos na infância e uso e abuso de drogas entre alunos de uma universidade em Leon, Nicarágua. Um questionário autoadministrado foi aplicado a 368 estudantes. Os resultados mostraram que 51.6% dos participantes eram do sexo feminino, com idade média de 19 anos, enquanto os homens eram mais velhos (média 24 anos). Entre os estudantes, 22.8% referem ter sido abusados na infância. A negligência foi mais frequente entre homens, enquanto abuso físico, psicológico e sexual foi entre as mulheres. O uso de drogas (lícitas ou ilícitas) em algum momento da vida ocorreu em 50,0% dos estudantes, com maior prevalência entre os homens. A análise do qui-quadrado apontou que o abuso sexual está relacionado ao uso de drogas de forma significativa ($\chi^2=7.49$) ($p=0.00$), mas não ao abuso de drogas. Maus-tratos físicos foram estatisticamente associados tanto ao uso quanto ao abuso de drogas.

DESCRIPTORIOS: Drogas. Maus-tratos infantis. Estudantes. Universidades.

MALTRATO DURANTE LA NIÑEZ ASOCIADO AL USO Y ABUSO DE DROGAS EN ESTUDIANTES EN UNA UNIVERSIDAD DE LEON, NICARAGUA

RESUMEN: Investigación exploratoria que pretendió examinar la asociación entre el maltrato durante la niñez y el uso y abuso de drogas entre los estudiantes de una Universidad en León, Nicaragua. Mediante la aplicación de un cuestionario auto-administrado se obtuvo que el 51.6% de los participantes eran de sexo femenino y el 95.6% se encontraban en las edades de 18 y 24 años. El 22.8% tuvo la percepción de haber sido maltratados durante su infancia. Un 9.0% reportó abuso sexual, en su mayoría del sexo femenino. El 50% habían consumido algún tipo de droga (licita/ilícita) alguna vez en su vida. Mediante un análisis del Chi Cuadrado se encontró que el abuso sexual está relacionado con el uso de drogas significativamente ($\chi^2=7.49$) ($p=0.00$).

DESCRIPTORIOS: Drogas. Maltrato. Infantil. Estudiantes. Universidades.

INTRODUCTION

In Latin America and the Caribbean, 40 million children under the age of 15 suffer from violence, abuse, and abandonment.¹ Studies conducted in developed countries suggest that maltreatment during childhood is a risk factor for substance use/abuse.²

In Nicaragua, there is a widespread climate of violence toward children and adolescents. The use of physical strength seems to be part of the culture, values, and beliefs that guide practices within families and the community.³ According to the Legal Medicine Institute, 4.54% of cases of domestic violence were classified as child abuse in 2006, and 2.87% concerned girls under 10 years.⁴ In cases of sexual abuse, the typical abusers are men aged between 19 and 30 years old, and they are usually the father, stepfather, uncle, cousin, or brother.⁵

Drug use in Nicaragua is a current problem due to the lack of investigation and resources aimed at intervention and drug prevention programs. In a study⁶ carried out with students from the School of Medicine of two universities, it was found that the prevalence of tobacco consumption over the past 12 months was respectively 36.8% and 50.7% in each institution, and the prevalence of alcohol consumption over the past 12 months was 53.6% and 77.6% respectively.

The present study was aimed at examining the relationship between maltreatment during childhood and the use and abuse of drugs among students at a university in León, Nicaragua

METHOD

This is a multi-centered, descriptive and cross-sectional study in which 190 women and 178 men, all of whom were students at three different schools of the University of Nicaragua, were selected by means of a non-probabilistic sample.

A self-administered questionnaire about maltreatment during childhood and substance abuse was applied. This instrument contained the Kessler Distress Scale (K10)⁷, which was used to assess psychological distress, the Adverse Childhood Experiences Questionnaire (ACE),⁸ which consisted of 16 questions divided into six sections that included demographic data, and the CICAD-OEA Questionnaire on Use and Abuse of Drugs, which included six questions to assess the use and abuse of drugs by students. A pilot test was performed in order to validate the instrument. A database was designed with the help of the Statistical Package for the Social Sciences (SPSS) version 15. A descriptive statistical analysis of absolute and relative frequencies was performed for the categorical variables, and measures of central tendency (mean and median) were found. Contingency tables and a chi-squared test were completed in order to examine the association between maltreatment during childhood and the use and abuse of drugs. The protocol was submitted for approval to the Research Ethics Board of the Center for Addiction and Mental Health (CAMH) and the Ethics Committee of the selected university in Nuevo León, Nicaragua. The anonymity of participants was respected, and results will be kept confidential.

RESULTS

Between May and June 2011, 368 students at three schools of the University of León, Nicaragua were interviewed, of whom 190 (51.6%) were male, with a mean age of 19 years old; 95.6% were aged between 18 and 24 years old. Eighty-two point nine percent came from urban areas and 54.3% stated that their religious belief was very important to them. Twenty-two point eight percent of the students had the perception that they had been abused during their childhood, with a higher incidence among women (27.4%) as opposed to men (18%), although evidence of significant differences between these percentages was not found (see Table 1).

Table 1 -Sociodemographic characteristics of the study participants. León, Nicaragua, June 2011

Sociodemographic characteristics	Men n=178		Women n=190		Total n=368	
	(f)	%	(f)	%	(f)	%
Age						
18- 24 yrs	169	94.9	183	96.4	352	95.6
25-29 yrs	7	4.0	5	2.6	12	3.3
30-34 yrs	2	1.1	2	1.0	4	1.1
Religious beliefs						

Sociodemographic characteristics	Men n=178		Women n=190		Total n=368	
	(f)	%	(f)	%	(f)	%
Very important	85	47.8	115	60.5	200	54.3
Important	52	29.2	52	27.4	104	28.3
Fairly important	33	18.5	14	7.4	47	12.8
Not important	8	4.5	9	4.7	17	4.6
Origin						
Urban	153	86.0	152	80.0	305	82.9
Rural	25	14.0	38	20.0	63	17.1
Think they were abused						
Yes	32	18.0	52	27.4	84	22.8
No	146	82.0	138	72.6	284	77.2

Neglect was reported by 54.6% of participants, 56.2% for men (N=100) and 53.2% for women (N=101). Regarding psychological abuse, the prevalence was 40.5% of cases, reported by

39.3% of men and 41.6% of women (Table 2). No significant differences were found between these proportions.

Table 2 - Reports of maltreatment during childhood. León, Nicaragua, June 2011

Type of maltreatment	Men n=178		Women n=190		Total n=368	
	(f)	%	(f)	%	(f)	%
Neglect	100	56.2	101	53.2	201	54.6
Psychological abuse	70	39.3	79	41.6	149	40.5
Verbal abuse	44	24.7	60	31.6	104	28.3
Sexual abuse	10	5.6	23	12.1	33	9.0

The prevalence of consumption of any kind of drug (licit or illicit) at any point in life was estimated in 50%, reported as higher for the male gender (60.7%) compared to the female gender (40%), with significant differences between both percentages ($p=0.00$; IC 95% [6.3, 35.1]).

Of the 184 university students surveyed who reported having used some drug over the past 12 months, 67.9% abused these substances. This percentage was higher among men (76.9%) than women (55.3%), and significant differences were found between percentages ($p=0.00$; IC95% [7.9, 35.3]).

Table3 - Proportion of use and abuse of a psychoactive drug by university students León, Nicaragua, June 2011

Consumption patterns	Men (n=178)		Women (n=190)		Total (n=368)	
	(f)	%	(f)	%	(f)	%
Use of psychoactive drugs	108	60.7	76	40.0	184	50.0
Abuse of psychoactive drugs	83	76.9	42	55.3	125	67.9

Nine percent reported sexual abuse, and these were mostly women. Using a chi-squared analysis, it was found that sexual abuse is related to drug use ($\chi^2=7.49$) ($p=.00$).

Table 4 - Relationship between maltreatment during childhood and use/abuse of psychoactive drugs. León, Nicaragua, June 2011

Type of maltreatment	Use	Abuse
Sexual	$\chi^2=7.49$ $p=0.00$	$\chi^2=2.13$; $p=0.14$
Physical	$\chi^2=9.52$; $p=0.00$	$\chi^2=11.46$; $p=0.00$
Verbal	$\chi^2=2.05$; $p=0.15$	$\chi^2=2.05$; $p=0.15$
Neglect	$\chi^2=3.25$; $p=0.07$	$\chi^2=2.21$; $p=0.13$

DISCUSSION

Based on the sociodemographic characteristics found, 51.6% of participating students were female, with a mean age of 19 years old; 95.6% were aged between 18 and 24 years old. These characteristics are similar to those found in a study in which 53.6% of participants were female and the age group with the largest number of individuals was the 21-22-year-old group.⁶

Our study showed that the prevalence of consumption of any drug (licit or illicit) at some point in life was estimated at 50%, which is a similar frequency to the one found in the study with students at the school of medicine of two universities, which reported that more than half of students from both universities had used licit drugs.⁶

The gradual transition from adolescence to adulthood is a period of conflict and change, most of which increase the risk of emotional distress for some, as well as of alcohol abuse, and the use of tobacco and illicit drugs.⁹

As for the perception of having been abused, 22.8% of students responded affirmatively to this question, and a higher percentage was observed among women (27.4%) compared to men (18%). These data are confirmed by a study that found that girls are more likely to be abused than boys, but both girls and boys suffer from the same effect of abuse.¹⁰

In 2003, 95.7% of sexual abuse victims reported by the National Police and the Ministry of Family were girls or adolescent women.¹¹ Another clinical study indicated that sexual abuse during childhood and adolescence occurred among 26% of women and 20% of men. In our study, it was found that 9% of all students had been sexually abused, 12.1% of women and 5.6% of men, which confirms the fact that women report this type of abuse more often, although our study did not find

significant differences between estimates.¹²

As for the prevalence of psychoactive drug use, we observe that the prevalence among male students was 60.7%, thus being higher than for female students, which was 40%. After performing a proportion comparison test, significant differences were found between these prevalences ($p=0.00$; IC95% [6.3, 35.1]). This situation coincides with a study conducted among secondary school students that showed a higher prevalence of illicit and licit drug use among men. However, this is reversed when improper use of drugs (tranquilizers and stimulants) is analyzed, for which women have a higher prevalence.¹³

In our study, a relationship was found between sexual and physical abuse and the use of a psychoactive drug ($\chi^2=7.49$), a situation that coincides with the results of another study that indicated that children who have been sexually abused have the most severe levels of maltreatment and this is related to psychological disorders resulting from alcohol and substance dependence as one of the strongest relationships.¹⁴⁻¹⁵

On the other hand, regarding the use and abuse of psychoactive drugs, only a relationship between physical abuse (associated with drug use¹⁰) and patterns of problematic behavior was found.¹⁵ Scientific evidence indicates that the different types of abuse (physical and sexual) considered as maltreatment during childhood are associated with the use and abuse of psychoactive drugs.

The use, and especially abuse, of drugs by university students in Latin America and the Caribbean is a major concern due to the high proportion of drug use in these regions. The magnitude of the drug use issue in Nicaragua-León requires a greater number of studies on the topic, as well as more resources for intervention and drug prevention programs aimed at this population.

CONCLUSIONS

This exploratory study provides preliminary evidence for the existence of a relationship between maltreatment during childhood and drug abuse, more particularly between sexual abuse and the use of a psychoactive drug, among students at three different faculties of a university in León, Nicaragua. However, this investigation should be viewed with caution because its results cannot be generalized to all university students in

Nicaragua.

Limitations

The sampling technique was a limitation, because it did not allow for the generalization of results to the whole university population. Students were asked to provide retrospective data on events that might have occurred during their childhood and adolescence. These reports might have been affected by a loss of memory. It is worth mentioning that maltreatment and use or abuse of drugs might have been over-reported or under-reported.

Recommendations

To CICAD/OEA

It is recommended to foster scientific investigation that enables recognition of the magnitude of psychoactive drug consumption at a community level. Thus it will be possible to obtain more accurate figures, understand the gravity of the problem, and make comparisons between countries to determine how individuals behave in different contexts, as well as to deliver feasible and effective interventions in Latin America.

To Drug Control Commissions

It is recommended to build partnerships with educational institutions (universities and secondary schools) to develop prevention and intervention programs in vulnerable sectors as reported by different studies among university and secondary school students.

To the Ministry of Health

It is recommended to conduct regular monitoring of drug-taking behavior in different populations (urban, rural, young, adult) that attend care units (primary, secondary, and tertiary care). In this way, it will be possible to determine the association of such behaviors with different health circumstances/phenomena.

To Universities

It is recommended to use the results of this study as a reference that allows for the creation of drug use prevention programs aimed at the young population, reminding these youth that the period

in the university defines the social and professional roles of students that will have an effect on their future. It is recommended to foster research that includes mental health phenomena such as drug use with possible related factors, and to develop prevention and intervention programs for addictive behaviors aimed at the young population. asisten a las mismas. Recordándoles que la etapa.

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