

ATTITUDES TOWARDS PEOPLE WITH DRUG USE OF RESIDENTS OF AN URBAN COMMUNITY, LEON, NICARAGUA

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ABSTRACT

Objective: determine the attitudes of urban residents of a community in León, Nicaragua, towards people with drug use.

Method: cross-sectional study with 121 people, aged 18-65, randomly surveyed with a multidimensional Attitude Inventory.

Results: the global scale of attitudes showed negative attitudes to marijuana and cocaine (62 and 78%) and ambivalent alcohol (54%). Significant differences were found in relation to whether they had ever consumed in their lives, socio-demographic factors and attitudes towards the drug user. In relation to age, from 18 to 29 years old, the prevailing attitude was ambivalent for both alcohol, marijuana and cocaine. However, in the cases of alcohol and marijuana positive attitude was reported in 7.3% and 4.9% respectively, in these same age ranges. For the sex variable, it was reported that the female had a negative attitude to alcohol and marijuana in contrast to the male sex that their attitude was ambivalent towards these consumers. An important fact is that men presented positive attitude toward people with problematic use of alcohol and marijuana in 4.9% and 3.3% respectively, with a value of $p = 0.002$.

Conclusion: negative attitudes towards users of illegal drugs (cocaine and marijuana) were found, while for alcohol consumption it was more ambivalent, suggesting a high burden of stigma and the need to educate the community. Age, 18-29 years, the prevailing attitude was ambivalent for both alcohol, marijuana and cocaine. For the sex variable it was reported that the female one presented negative attitude to alcohol and marijuana.

DESCRIPTORS: Health knowledge, Attitudes, Practice. Cannabis. Street drugs.

HOW CITED: Alemán T, Hamilton H. Attitudes towards people with drug use of residents of an urban community, Leon, Nicaragua. *Texto Contexto Enferm* [Internet]. 2019 [cited YEAR MONTH DAY]; 28(Spe):e54. Available from: <http://dx.doi.org/10.1590/1980-265X-TCE-CICAD-5-4>

ATITUDES PARA COM OS USUÁRIOS DE DROGAS MORADORES DE UMA COMUNIDADE URBANA EM LEON, NICARÁGUA

RESUMO

Objetivo: determinar atitudes de moradores urbanos de uma comunidade de León, Nicarágua, sobre os usuários de drogas.

Método: estudo transversal com 121 pessoas, entre 18 e 65 anos, pesquisadas aleatoriamente com inventário de Atitude Multidimensional.

Resultados: a escala global de atitudes mostrou atitudes negativas em relação à maconha e cocaína (62 e 78%) e álcool ambivalente (54%). Diferenças significativas foram encontradas em relação a se elas já consumiram em suas vidas, fatores sociodemográficos e atitudes em relação ao usuário de drogas. Em relação à idade, de 18 a 29 anos, a atitude predominante era ambivalente tanto para o álcool quanto para a maconha e a cocaína. No entanto, nos casos de álcool e maconha, a atitude positiva foi relatada em 7,3% e 4,9%, respectivamente, nessas mesmas faixas etárias. Para a variável 'sexo', foi relatado que a mulher tinha uma atitude negativa em relação ao álcool e à maconha, em contraste com o sexo masculino, cuja atitude era ambivalente em relação a esses consumidores. Um fato importante é que os homens apresentaram uma atitude positiva em relação às pessoas com uso problemático de álcool e maconha em 4,9% e 3,3%, respectivamente, com um valor de $p = 0,002$.

Conclusão: atitudes negativas em relação aos usuários de drogas ilícitas (cocaína e maconha) foram encontradas, enquanto que para o consumo de álcool foi mais ambivalente, sugerindo uma alta carga de estigma e a necessidade de educar a comunidade. Entre as idades de 18 a 29 anos, a atitude que predominou foi ambivalente tanto para o álcool, a maconha e a cocaína. Para a variável 'sexo', foi relatado que a mulher apresentou uma atitude negativa em relação ao álcool e à maconha.

DESCRITORES: Conhecimentos. Atitudes e práticas em saúde. Cannabis. Drogas ilícitas.

ACTITUDES HACIA LAS PERSONAS CON USOS DE DROGAS DE RESIDENTES DE UNA COMUNIDAD URBANA, LEÓN, NICARAGUA

RESUMEN

Objetivo: determinar las actitudes de residentes urbanos de una comunidad de León, Nicaragua, hacia las personas con usos de drogas.

Método: estudio transversal con 121 personas, de 18-65 años, encuestadas al azar con inventario de Actitud Multidimensional.

Resultados: la escala global de las actitudes mostró actitudes negativas a la marihuana y cocaína (62 y 78 %), y alcohol ambivalente (54%). Se encontraron diferencias significativas en relación a si habían consumido alguna vez en su vida con factores socio-demográficos y actitudes hacia el usuario de drogas. En relación a la edad, de 18-29 años, la actitud que predominó fue la ambivalencia tanto para el alcohol, la marihuana y la cocaína. Sin embargo, en los casos de alcohol y marihuana se reportó una actitud positiva en un 7,3 % y 4,9 % respectivamente, en estos mismos rangos de edad. Para la variable 'sexo', se reportó que el femenino presentó actitud negativa para el alcohol y la marihuana, en contraste con el sexo masculino en que su actitud fue ambivalente hacia estos consumidores. Un dato importante es que los varones presentaron actitud positiva hacia personas con uso problemático de alcohol y marihuana en un 4,9% y 3,3%, respectivamente, con un valor de $p=0,002$.

Conclusión: se encontraron actitudes negativas hacia los usuarios de drogas ilegales (cocaína y marihuana) mientras que para el consumo de alcohol fue más ambivalente, sugiriendo una alta carga de estigma y la necesidad de educar a la comunidad. En la edad de 18-29 años, la actitud que predominó fue la ambivalente tanto para alcohol, marihuana y cocaína. Para la variable 'sexo', se reportó que el femenino presentó actitud negativa para el alcohol y la marihuana.

DESCRITORES: Conocimientos actitudes. Práctica en salud. Cannabis. Drogas ilícitas.

INTRODUCTION

The report of the Organization of American States OAS on the situation of drugs in the Americas shows that the countries of the region share a common interest in the search for new and innovative solutions, destined to reduce the damage to its citizens and respect for individual human rights.¹

Mental health education for the general population is still unsatisfactory and needs to be improved in order to help reformulate negative attitudes towards people with mental health problems.²

Particularly positive attitudes are considered fundamental for the equitable provision of access to goods and services, including housing, employment, education and health care. On the contrary, it is expected that negative and stigmatizing attitudes tend to increase the social isolation of people with mental health problems and to make their condition more chronic.

This study seeks to describe the existing attitudes toward people with problematic drug use, in an urban area of León, Nicaragua. It is part of a multicenter study involving five countries in Latin America and five Caribbean countries. The ecological theory provided the theoretical context of the study, since it better describes the domains in which attitudes are developed and maintained. It is also understood that the development of attitudes is based on psychological, sociological and ecological constructs on which the model operates.

For this, we consider the research question: What are the attitudes of the individuals of an urban community in León, Nicaragua towards people with drug use? And as a goal to determine the attitudes of urban residents of a community of León, towards people with problematic uses of drugs.

METHOD

This is part of a multicenter, quantitative, cross-sectional, preliminary study that uses a survey methodology that measures attitudes towards people who consume drugs.

The sample size in each country is 121 individuals. Among the 10 countries that make up this multicenter study, there is a total sample of 1,210 units.

The selection of the sample will be made in three stages: location of the urban community, the random selection of the dwellings within the community and finally, the random selection of the participants in each chosen dwelling.

The place where the study was conducted was chosen at random from a set of urban communities where the principal researcher resides or from a priority area in the country of origin. In the case of Nicaragua, León, as the university has precincts throughout the city, a sample was taken around each university campus. The community was selected according to the following characteristics: a) census or electoral roll to determine demographic data; b) have 5,000-10,000 residents and c) be classified as 'urban'.

A random sample of houses was taken, selecting them sequentially. In cases where one of the selection criteria was not met, the next immediate house was chosen.

Based on the selection criteria, the selection was applied according to gender and age. The sample consists of 50% of women and 50% of men, selected by direct interview alternately during the entire data collection process. If a house selected for an interviewed woman did not produce an interview (either because she was not present or because the consent could not be obtained), the interviewers proceeded to interview the house next door, where a woman to be interviewed was selected.

There are three age groups in the study: young adult age 18 to 29 years old; a second group between 30 to 49 years old; and the last group 50-65 years old.

A control was taken halfway through the data collection process to verify that the necessary numbers of men and women and the age groups are met. Oversampling was used to ensure that

the number of people per age group and gender is met: a) census or electoral roll to determine demographic data; b) have 5,000-10,000 residents; and c) be classified as 'urban'. A random sample of dwelling was taken, selecting them sequentially. In cases where one of the selection criteria was not met, the next immediate house was chosen.

The sample is made of 50% women and 50% men, selected by direct interview alternately throughout the data collection process.

The inclusion criteria were any house with at least one adult between 18 and 65 years old in the destination community that can give their informed consent and that has the same probability of being selected at random to be part of this study.

The exclusion criteria: 1) any building that is not a dwelling per se, 2) Any house that does not house potential participants or that is empty at the time of data collection. Anyone under the age of 18 was also excluded from the sample, even the emancipated minors who were able to provide informed consent. Also excluded is any person who is 18 years old or older who is not able to give informed consent or who, due to some type of disability, could not give a reasonable response.

The independent variables were: Socio-demographic variables: Sex, age, employment, marital status, education, religiosity and personal experience with drugs. Types of drugs: alcohol, marijuana, cocaine and cocaine base.

It was adapted as a dependent variable: Attitudes: These were studied through explicit measures through the Inventory of Multidimensional Attitude that is formed by three scales that will be explained in the next section.

The instrument used in this project is a reconstructed questionnaire, called *Inventory of Multidimensional Attitude* (MAI). The MAI is designed to measure the attitudes of the population towards people with problematic uses of different types of drugs in various dimensions. The inventory first attempts to measure attitudes along a continuum that goes from the positive to the negative. It also try to measure three discrete attributes of attitudes: cognitions, affect and intention of behavior in four different domains: Microsystem (interpersonal), Mesosystem (community), Exosystem (external society) and Macrosystem (culture, history, economy, politics).

The data collection was carried out with students who were supervised by the principal investigator of each country and the research coordinator of the UNAN-LEÓN. A geo-referencing of the study population was made according to inclusion and exclusion criteria of the study. Later, the places where people who participated in the study were going to be looked were identified.

The UNAN LEON has enclosures in different places of the city, and the survey was carried out around all these precincts. After validation of the instruments and both in Toronto and in Nicaragua, once this validation was done, the application of the instrument was conducted in the sites of the city eligible for that purpose.

Subsequently, the database was designed using the statistical package for the Social Sciences (SPSS) version 20 in CAMH-CICAD. For the input of the questionnaire data, to identify possible inconsistencies, the data of a sample of 10% of the questionnaires were typed twice. The database was cleaned, which were saved and sent for the hemispheric analysis in the base format designed in CAMH-CICAD. The data of the study in León were analyzed with the absolute and relative frequency of the categorical variables and measures of central tendency (mean, median) and dispersion (standard deviation) for the numerical variables. Cross tabulations were performed to compare the effects of independent demographic variables on the dependent variables.

RESULTS

Table 1 shows that the minimum age of the study participants was 18 years and the maximum age was 65 years with an average age of 39 years. It also shows that the standard deviation. It was 33.9% at the ages of 18.9 years. 37.2% of the population were unemployed, 66.9% belonged to some religion, 49.6% were married and 54.5% had a high school education or less.

Table 1 – Socio-demographic data, León-Nicaragua, 2014. (n=121)

Variables	n	%
Gender		
Male	61	50.4
Female	60	49.6
Age Group		
Minimum age	18 years	
Maximum Age	65 years	
Average age	39 years	
Mode	30 years	
Stand. dev.	14.8 years	
18 to 29 years	41	33.9
30 to 49 years	40	33.1
50 to 65 years	40	33.1
Employment		
Yes	76	62.8
No	45	37.2
Religion		
Without religion	34	28.1
With Religion	81	66.9
Didn't answer	6	5.0
Marital status		
Not married / not consensually married	61	50.4
Married / consensually married	60	49.6
Education		
High School or less	66	54.5
More than high school	55	45.5

Table 2 indicates that 53.7% of the population has an ambivalent attitude towards people with problematic alcohol use, contrary to marijuana and cocaine, which was negative in 62% and 78.5% respectively.

Table 2 – Attitudes towards people who use drugs. (Global Scales), León-Nicaragua, 2014

Scale	Positive attitude	Ambivalent attitude	Negative attitude	Total
Alcohol	3 (2.5%)	65 (53.7%)	53 (43.8%)	121 (100%)
Marijuana	2 (1.7%)	36 (36.4%)	75 (62.0%)	121 (100%)
Cocaine	-	26 (21.5%)	95 (78.5%)	121 (100%)

Table 3 indicates that in relation to age, aged 18-29, the prevailing attitude was ambivalent for both alcohol, marijuana and cocaine. However, in the cases of alcohol and marijuana positive attitude was reported in 7.3% and 4.9% respectively, in these same age ranges. In the ranges of 30-49 and 50-65 years, the attitude towards people who abuse this type of drug was negative. All this with a value of $p=0.000$

For the sex variable was reported that the female one presented negative attitude to alcohol and marijuana in contrast to the male sex his attitude was ambivalent toward these consumers. An important fact is that men presented positive attitude toward people with problematic use of alcohol and marijuana in 4.9% and 3.3% respectively, with a value of $p = 0.002$ (Table 3).

Table 3 – Relation between attitudes towards the consumption of alcohol, marijuana, cocaine and socio-demographic data. León-Nicaragua, 2014

	Alcohol			Marihuana			Cocaína					
	AP*	AA†	AN‡	Total	AP*	AA†	AN	Total	AP*	AA†	AN‡	Total
Age			P=0,000			P=0,000					P=0,003	
18 to 29 years	3(7,3)	31(75,6)	7(17,1)	41(100,0)	2(4,9)	24(58,5)	15(36,6)	41(100,0)	-	16(39,0)	25(61,0)	41(100,0)
30 to 49 years	-	19(47,5)	21(52,5)	40(100,0)	-	10(25,0)	30(75,0)	40(100,0)	-	5(12,5)	35(87,5)	40(100,0)
50 to 65 years	-	15(37,5)	25(62,5)	40(100,0)	-	10(25,0)	30(75,0)	40(100,0)	-	5(12,5)	35(87,5)	40(100,0)
Gender			P=0,002			P=0,002					P=0,204	
Male	3(4,9)	39(63,9)	19(31,1)	61(100,0)	2(3,3)	29(47,5)	30(49,2)	61(100,0)	-	16(26,2)	45(73,8)	61(100,0)
Female	-	26(43,3)	34(56,7)	60(100,0)	-	15(25,0)	45(75,0)	60(100,0)	-	10(16,7)	50(83,3)	60(100,0)
Employment			P=0,423			P=0,605					P=0,881	
Yes	1(1,3)	40(52,6)	35(46,1)	76(100,0)	-	28(36,8)	48(63,2)	76(100,0)	-	10(22,2)	35(77,8)	45(100,0)
No	2(4,4)	25(55,6)	18(40,0)	45(100,0)	2(4,4)	16(35,6)	27(60,0)	45(100,0)	-	16(21,1)	60(78,9)	76(100,0)
Religion			P=0,016			P=0,055					P=0,119	
Without religion	-	28(82,4)	6(17,6)	34(100,0)	-	21(61,8)	13(38,2)	34(100,0)	-	13(38,2)	21(61,8)	34(100,0)
With religion	2(2,5)	33(40,7)	46(56,8)	81(100,0)	-	20(24,7)	61(75,3)	81(100,0)	-	9(11,1)	72(88,9)	81(100,0)
Didn't answer	¹ (16,7)	4(66,7)	1(16,7)	6(100,0)	2(33,3)	3(50,0)	1(16,7)	6(100,0)	-	4(66,7)	2(33,3)	6(100,0)
Civil status			P=0,050			P=0,023					P=0,086	
Not married/not married	3(4,9)	36(59,0)	22(36,1)	61(100,0)	2(3,3)	27(44,3)	32(52,5)	61(100,0)	-	17(27,9)	4(72,1)	61(100,0)
Married/consensually married	-	29(49,3)	31(51,7)	60(100,0)	-	17(28,3)	43(71,7)	60(100,0)	-	9(15,0)	51(85,0)	60(100,0)
Education			P=0,038			P=0,199					P=0,160	
High School or less	2(3,0)	29(43,9)	35(53,0)	66(100,0)	-	22(33,3)	44(66,7)	66(100)	-	11(11,7)	55(83,3)	66(100,0)
More than high School	1(1,8)	36(65,5)	18(32,7)	55(100,0)	2(3,6)	22(40,0)	32(56,4)	55(100,0)	-	15(27,3)	40(72,7)	55(100,0)

*PA=positive attitude; †AA = ambivalent attitude; ‡NA = negative attitude

Table 4 indicates that there was statistical significance in the means of the overall attitude for both alcohol, marijuana and cocaine.

Table 4 – Average of the overall attitude of alcohol, marijuana and cocaine in relation to those who have used this drug at some time. León-Nicaragua, 2014

Global attitude and have used this drug at some time	Related tested samples						Total	gl	Sig. bilateral
	Related differences								
	Half	Standard dev.	Standard error of the average	95% CI*					
			Lower	Higher					
Alcohol	31.61983	6.98958	.63542	30.36175	32.87792	49.762	120	.000	
Marijuana	34.90083	6.20807	.56437	33.78341	36.01824	61.840	120	.000	
Cocaine	37.30579	5.47699	.49791	36.31996	38.29161	74.925	120	.000	

*95% Confidence interval for the difference

DISCUSSION

When we have a negative attitude about a person can be a predictor of a negative action towards him. A positive attitude can predict positive actions.³⁻⁴ However, the literature indicates that where attitudes are not defined, in case of uncertainty or ambivalence, opportunities for change are presented.⁵

Our study is based on the ecological model, where it expresses that attitudes are an internal complexity that are formed through interactions in at least four domains.⁶⁻⁷ This theoretical basis is fundamental to the understanding of how attitudes can affect life and functions within human systems. However, attitudes in themselves are complex.

121 people from the urban area were studied, near the different university campuses in the city of León-Nicaragua. 62.8% of the population had a job, 66.9% belonged to some religion and finally 54.5% had a high school academic level or more.

When evaluating, the attitude of the population towards people with problematic use of drugs, it was found that 53.7% of the population has an ambivalent attitude toward people who abuse alcohol, this indicates that at some point in their lives, their intention towards that drug could change; unlike for marijuana and cocaine, the attitude was negative by 62% and 78.5% respectively, which predicts its negative action towards that person.

Latin American Social Sciences (FLACSO), conducted a study of patterns of consumption of alcoholic beverages in Latin America and in Nicaragua it was reported that, 49.9% of the ages of 18 to 65 years consume alcoholic beverages, focusing mostly in the urban area, especially in Managua.⁸ This adding to the fact that our culture is like a patriarchal state where the man is the head of the family, and therefore teaches his children to repeat patterns, being one of them alcohol consumption, probably explain the ambivalent attitude of the population.

In a survey conducted on Nicaraguan students, with a range of 2.6%, marijuana represents the most consumed drug among illicit drugs, this is frequently followed by cocaine hydrochloride, solvents and inhalants and crack. This is probably why a negative attitude towards the consumption of these substances was observed, also due to the fact that they are still part of the group of illicit drugs, and people see consumers as drug addicts, but not those who consume liquor.⁹⁻¹⁰

Adolescence represents a vital stage identified with the succession of identity crisis and psycho-affective and socio-relational conflicts, several due to the changes that are interrelated at the psychosocial level and in the family, educational and play areas.¹¹

In our study, statistical significance was found among all the socio-demographic factors and studied drugs, except sex and cocaine, use with alcohol, marijuana and cocaine; education with marijuana and cocaine.

Although drug use can occur at any age, numerous studies show that the earlier the consumption starts, the greater the likelihood of progressing to abuse. This may be the expression of a variety of factors, both biological and social, including genetic susceptibility, mental illness, unstable family relationships, peers and exposure to physical or sexual abuse.¹²

In Nicaragua, as in all Latin America, man is the one that commonly consumes more alcohol, due to our socio-cultural factors. That is why its ambivalent attitude towards alcohol consumers could be justified, unlike women who have a negative intention towards this drug. As shown in the study of Mexican adolescents and young people, mainly in males, there is a greater impact of the attitude due to the significant cultural weight of the opinion of friends and schoolmates, to make decisions about the behavior of alcohol consumption, unlike the Anglo-Saxon communities with the greatest individualistic spirit. Likewise said study, show that the attitude of adolescents towards alcohol consumption will be more favorable when the perception of risk is lower, the distorted beliefs are greater and more permissive is the provision for the consumption of alcohol.¹³

Nicaragua being a very religious country, the population is influenced by what is regulated in any religious group. And if we take as a reference what is written in the literature that dictates that the attitudes together with the evaluation of the same ones, will allow to better predict the intention of the behavior, besides the knowledge on the specific beliefs of what the others think of each one of the specific behaviors, influences the intention to carry out or not conduct in general (maintenance of health), always depending on the motivation to please them.¹⁴

Marijuana remains the most commonly consumed illicit substance in the United States and Europe.¹⁵ The generalized perception of marijuana as a benign natural herb makes our society think it's good. This information is passed down from generation to generation and that is why some of our results coincide with the consulted literature, where the negative attitude is reported according to the age of the participants faced with marijuana users. One study reports high prevalence of consumption and was observed in all demographic groups and regions, suggesting that the use of marijuana is of national relevance.¹⁶

In relation to base paste and the profile of users of cocaine base paste (PBC) in the last 10 years in the American continent, some works have been published, finding differences between the studied countries. In Uruguay, PBC consumers had the following characteristics: mostly males, with an average age of 23 years (37% were minors). 90% were under 30 years old, most were single, unemployed. A large part studied middle level school (high school, technical school), but did not complete it. The percentage of consumers with stable work or current study did not exceed 20%, a high number of users lived with their parents.¹⁷

In our study, prevalence is not being studied but, yes, it is good to know this data because it can help us understand the attitude of our participants towards the cocaine abuser.

There are significant differences between the attitude of people towards consumers of any of the drugs described and having consumed them at some point in their lives. Recall that the attitude that prevailed towards drug users was ambivalent and negative, meaning that this attitude is maintained despite having consumed at some point in their lives, whether alcohol, marijuana and cocaine.

In relation to the personal use of one of the drugs, it was reported that 72.7% of people had used alcohol, marijuana 16.5% also; cocaine only 2.5% and cocaine derivatives all participants expressed not having consumed it.

Our results coincide a lot in relation to the consumption of alcohol, marijuana and cocaine in a multi-center study where it refers to the use of these drugs in the last 12 months, high consumption prevalence regardless of the participating country.¹⁸

CONCLUSION

Negative attitudes towards users of illegal drugs (cocaine and marijuana) were found, while for alcohol consumption it was more ambivalent, suggesting a high burden of stigma and the need to educate the community.

Age, 18-29 years old, the prevailing attitude was ambivalent for both alcohol, marijuana and cocaine. However, in the cases of alcohol and marijuana positive attitude was reported in 7.3% and 4.9% respectively, in these same age ranges.

In the ranges of 30-49 and 50-65 years, the attitude towards people who abuse this kind of drug was negative. For the sex variable it was reported that the female one presented negative attitude to alcohol and marijuana. Males presented positive attitude toward people with problematic use of alcohol and marijuana by 4.9% and 3.3% respectively.

It is recommended to extend this study throughout the country to have a baseline of attitudes towards people with problematic use of drugs and thus, make proposals for change that reduces stigmatization and generate more knowledge that can be incorporated into the education system in Nicaragua, from pre-school to universities.

REFERENCES

1. Inter-American Drug Abuse Control Commission. Hemispheric plan of action on drugs, 2016-2020 approved at the CICAD Sixtieth regular session. Nassau: Inter-American Drug Abuse Control Commission;2016.
2. Jorm AF, Reavley NJ, Ross AM. Belief in the dangerousness of people with mental disorders: a review. *Aust N Z J Psychiatry*. 2012 Nov;46(11):1029-45.
3. Fazio R, Williams C. Attitude accessibility as a moderator of the attitude-perception and attitude-behaviour relations: An Investigation of the 1984 presidential election. *J Personal Social Psychol*. 1986;7:505-14
4. Petty RE, Krosnick JA, editors. Attitude strength: Antecedents and consequences. Mahwah (US): Erlbaum Associates;1995.
5. Priester JR, Petty RE. The gradual threshold model of ambivalence: relating the positive and negative bases of attitudes of subjective ambivalence. *Journal of personality and social psychology*. *J Pers Soc Psychol*. 1996 Sep;71(3):431-49.
6. Bronfenbrenner U (editor). Making human beings human :bioecological perspective on human development. Thousand Oaks (US): Sage Publications; 2005.
7. John WS. Lifespan development. New York (US):Mcgraw-Hill Humanities; 2011.
8. Facultad Latinoamericana de Ciencias Sociales. Encuesta sobre consumo de alcohol en Nicaragua. Nicaragua 2014 [cited 2018 Jun 12]; Boletín. Available from: <http://www.policia.gob.ni/p=1962>
9. Castro N, Cortés P, Vasters GP, Costa Jr. ML. Uso de drogas entre estudiantes de la Facultad de Ciencias Médicas de la Universidad Nacional Autónoma de Nicaragua, León, Nicaragua. *Rev Latino-am Enfermagem* [Internet]. 2010 [cited 2018 Jun 12];18(Esp):606-12. Available from: <http://www.scielo.br/pdf/rlae/v18nspe/a17v18nspe.pdf>



10. Sanchez M. Encuesta sobre consumo de drogas en estudiantes de seneñanza secundaria de Nicaragua. Noticias del Observador [Internet]. 2003 [cited 2018 Jun 12]. Available from: http://www.cicad.oas.org/oid/new/information/elobservador/EIObservador1_2005/EncuestasNicaraguaSPA.pdf
11. Jiménez MVM, Bernal AO. Análisis diferencial por niveles de edad de las actitudes hacia el consumo de sustancias psicoactivas en adolescentes españoles. *Interam J Psychol* [Internet]. 2005 [cited 2018 Jun 12]; 39(3):325-38. Available from: <http://www.redalyc.org/articulo.oa?id=28439302>
12. Ullman SE, Najdowski CJ, Filipas HH. Child sexual abuse, post-traumatic stress disorder, and substance use: predictors of revictimization in adult sexual assault survivors. *J Child Sex Abus.* 2009 Jul-Aug [cited 2018 Jun 12]; 18(4):367-85. Available from: <https://www.tandfonline.com/doi/abs/10.1080/10538710903035263>
13. López-Cisneros MA, Luis MAV, Castillo MMA, Castillo MTJA, Aguilar LR. Actitud ante el consumo y no consumo de alcohol en estudiantes de preparatoria – México. *Rev Esc Enferm USP* [Internet]. 2013 Aug [cited 2018 Jul 12]; 47(4):815-21. Available from: <http://dx.doi.org/10.1590/S0080-623420130000400007>
14. Fishbein M, Ajzen I. Predicting and changing behavior: the reasoned action approach. New York (US): Psychology Press, Taylor & Francis Group; 2010.
15. Budney AJ, Roffman R, Stephens RS, Walker D. Marijuana dependence and its treatment Adicction Science and clinical practice. *Addict Sci Clin Pract* [Internet]. 2007 Dec [cited 2018 Jul 12]; 4(1):4-16. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2797098/>
16. Ramo DE, Prochaska JJ. Prevalence and co-use of marijuana among young adult cigarette smokers: An anonymous online national survey. *Addict Sci Clin Pract.* 2012 Apr 19 [cited 2018 Jul 12]; 7:5. Available from: <https://ascpjournal.biomedcentral.com/articles/10.1186/1940-0640-7-5>
17. Pascale A, Hynes M, Cumsille F, Bares C, organizadores. Consumo de pasta base de cocaína en América del Sur: revisión de los aspectos epidemiológicos y médico-toxicológicos. Montevideo (UY): Inter-American Drug Abuse Control Commission, Organización de los Estados Americanos; 2014.
18. Herrera Rodríguez A, Prieto Silva R, Veloza Gomez M, Riquelme Hernández G, Nóbrega MPSS, Mitchell C, et al. Policonsumo simultáneo de drogas en estudiantes de facultades de ciencias de la salud/ciencias médicas en siete universidades de cinco países de América Latina y un país del Caribe: implicaciones de género, legales y sociales. *Texto Contexto Enferm* [Internet]. 2012 [cited 2018 Jul 12]; 21(spe):17-24. Available from: <http://dx.doi.org/10.1590/S0104-07072012000500002>

NOTES

CONTRIBUTION OF AUTHORITY

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Data analysis and interpretation: Alemán T, Hamilton H.

Discussion of the results: Alemán T, Hamilton H.

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ACKNOWLEDGMENTS

This work could not have been done without the permanent support and scientific interest of those who makes CICAD / OAS, CAMH, National Autonomous University of Nicaragua-León / Center for Information Demography and Health CIDS - Faculty of Medical Sciences that collaborated with the gathering of information and were always attentive to all forms of collaboration. We thank the participants of the study sample, and all the people who were directly and indirectly involved with the study.

ETHICS COMMITTEE IN RESEARCH

This research was carried out on the basis of the ethical standards established by the Research Ethics Committee of the Centre for Addictions and Mental Health (CAMH), as well as by the ethics committee for biomedical research of the Faculty of Medical Sciences from Unan Leon.

CONFLICT OF INTEREST

There is no conflict of interest.

HISTORICAL

Received: June 19, 2018.

Approved: April 01, 2019.

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