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EFFECT OF A PSYCHOEDUCATIONAL INTERVENTION ON SELF-ESTEEM AS A PROTECTIVE FACTOR AGAINST THE USE OF DRUGS IN ADDICTED ADOLESCENTS

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ABSTRACT

The beginning of consumption of addictive substances during adolescence is a behavior that requires special attention and presents numerous challenges and implies a series of changes in different areas such as personal, family, and social. In general, adolescents are exposed to multiple risk factors. The studies that were consulted indicate that a low self-esteem is a predictor of the use of drugs, which is why this phenomenon has become a competence for global health. It is here that primary care plays an important role, since health professionals must identify potential clients in a timely manner and provide effective interventions that positively contribute to adolescents' self-esteem, with self-concept and personal worth as core elements, as well as capacity of the individual when facing stressful situations in everyday life. The objective of this study is to evaluate the effect of a psychoeducational intervention on self-esteem as a protective factor against the use of drugs in addicted adolescents. The methodology is of a psychoeducational type, containing both qualitative and quantitative data, and due to its design, it was quasi-experimental, characterized by the manipulation of the causal or risk factor. The sampling was by snowball with a sample size of 30 participants and a confidence level of 95%, maximum error of 5%, and prevalence of 20%.

KEYWORDS: Self-efficacy; Teenagers; Addictions; Clinical trial.

INTRODUCTION

The consumption of legal and illegal drugs in adolescents is a global health problem that is a priority. The World Health Organization (WHO) reported that in 2011 the prevalence of consumption of both legal and illegal drugs among the population aged 12 or older was 6.3%.[1] However, the incidence of consumption continues to rise. In 2013, the United Nations Children's Fund (UNICEF) reported that almost 15.5% of the world's adolescent population said they had injected illegal drugs, most of them under the age of 15[2], and in 2014, the United Nations Office on Drugs and Crime (UNODC) reported the results of the use of alcohol, tobacco, and marijuana in the population of adolescents aged 13-17 years, being that in 12 countries out of 33, 10% of adolescents under the age of 14 had tried marijuana at least once and more than 30% of the world population of adolescents aged 17 use it.[3] In Latin America, the situation is no different. In 2011, the Inter-American Commission for the Control of Drug Abuse

(CICAD) indicated that inhalants are the substances most commonly utilized by middle / high school students; moreover, they are the first drugs used.

The highest prevalence in the use of inhalants was registered in Brazil (14.4%), followed by Jamaica (13.9%), Trinidad and Tobago (13.3%), Guyana (10.4%), and Mexico (5 %).[4] It has been proven that one of the most important factors associated with the consumption of legal and illegal drugs among adolescents is the degree to which they perceive consumption as a high-risk activity, as well as the ease of access to drugs. Therefore, the perception of risk, combined with the perceived ease of access to drugs, can be predictors of the increase or decrease in consumption (OEA, 2010).[5] According to the reports of the National Survey of Addictions (ENA, 2011), the population between the age of 12 and 17 consume some drug; of those reported as initiators, tobacco is listed, with an incidence in men of 31.4% and women 12.6%, followed

by dependence on alcohol in men with 6.2% and in women with 2.0%, and after that, the prevalence of the use of marijuana was 1.3%, followed by inhalants with 0.3%.

With regards to the consumption of any drug at the national level in 2011 in the population aged 12 to 17, it was 1.6% for legal drugs and 1.5%[6] for illegal drugs.

The situation of the use of drugs not only affects health issues, but addiction in adolescents is related to sexually transmitted diseases, car accidents, poor school performance, crime, violence, depression, and suicide, adversely conditioning the course of an adolescent's life.[7,8] More often than not, adolescents are exposed to multiple risk factors, which are defined by certain attributes or exposures associated with family, social situations, peer groups, and unhealthy environments. There are psychosocial factors that influence or condition the use of drugs. These are divided into two categories: the first are the risk factors that are casually linked to consumption or dependence, and the second are the protective factors that provide people with the strength to resist the risks.

Regarding the latter category, it is considered that low self-esteem, in the presence of risk, is a factor that makes adolescents more susceptible to the use of drugs.[9,10] In this sense, the concept of self-esteem has two components: a feeling of personal capacity and a feeling of personal worth, or in other words, the sum of confidence and self-respect.[11] It is here, where the use of theoretical models to develop interventions that aid in the prevention of the use of drugs, through a focus on psychological factors such as self-esteem, becomes important. For example, the Health Promotion Model of Nola J. Pender, postulates about the importance of the cognitive process in behavior modification, a process mentioned as the previously-related behavior, that is to say, the frequency of the same or similar behavior in the past and personal factors such as biological, sociocultural, and psychological.[12] Among the psychological factors addressed, self-esteem is one of the factors, of which Pender posits as a predictive factor of certain behavior, for example, drug use.

This theoretical claim has been further supported by other published evidence consulted during this study, offering a systematic review of the topic, that included three meta-analyses, five randomized clinical trials (two analytical and three comparative), and two descriptive studies. The results of which stated, in those of analytical type, that the consumption of some drug is negatively and significantly related to family and school self-esteem. The result in most of these investigations indicates that the higher the self-esteem, the lower the consumption of drugs (p <.05).[13,14] In the same order as above, the review of the comparative studies shows that adolescents who use tobacco and alcohol present a low level of self-esteem, while in those who do not consume,

only a part of them presented a low level of self-esteem.[15,16] In the descriptive and correlational studies, it is reported that adolescents who have never utilized tobacco or alcohol have a higher self-esteem score, as well as a significant and negative relationship with the level of self-esteem and the amount of consumption on a typical day.[17]

Among the studies that included interventions, their results showed that self-esteem scores increased in the experimental groups, and in the control groups, it decreased or remained the same. For this reason, it is concluded that use of drugs decreases when there is educational support.[17,18,19] In general, the impact of preventive programs is consistent, although limited. However, the evidence on the implementation of such interventions suggests a change in adolescent health-promoting behavior. Most of the studies with parallel groups and controlled with experimental methodology do not comply with the methodological rigor of a clinical trial, and they are also preventive and without a tendency to resolve.[20] Given this panorama, the objective of this study is to evaluate the effect of a psycho-educational intervention to increase self-esteem as a protective factor against the use of drugs in addicted adolescents.

METHODOLOGY
This psychoeducational intervention was a mixed study with both qualitative and quantitative data, and due to its design, it was quasi-experimental, characterized by the manipulation of the causal or risk factor for the subsequent determination of the effect[21] with a model of repeated measurements. It includes an experimental group (Cases) with a variable to manipulate (self-esteem) and an equivalent group (Control). The duration of the intervention was three months.

The population consisted of adolescents from a Telesecundaria, which is a system of education at a distance in Mexico, in the State of Veracruz, Mexico. The sample was calculated using the formula for finite populations with a confidence level of 95%, maximum error of 5%, and prevalence of 20%, obtaining a sample size of 32 participants[22], 15 for the Cases group and 15 for the Control group. Sampling was done for convenience, since the population was previously known. However, for the selection of the participants for the Cases and Control group, it was randomized by the snowball sampling technique.[23] To see the progression of the design, a diagram of the attrition of the sample was carried out according to the guidelines of CONSORT 2010, which represents the control of recruitment, sample selection, loss of subjects, and data analysis (Figure 1). The inclusion criteria are a willingness to participate in the intervention, sign the informed consent, and agree to participate in the scheduled sessions. Participants who were excluded are those who had received therapy for low self-esteem or alcohol consumption, students with a diagnosis of

depression, pregnant students, or individuals with gait (walking) or speech problems.

The results from students who did not attend 100% of the scheduled sessions or who decided to withdraw, a right that is offered to them in the informed consent, from the intervention were eliminated. The instrument administered was the questionnaire for the detection of alcohol, tobacco, and substance consumption V.3.0 (ASSIST), developed by the WHO and adapted by the Pan American Health Organization.[24] The questionnaire consisted of seven questions with options for consumption of tobacco, alcohol, cannabis, and inhalants; the questions refer to the substances that the individual has ever consumed, frequency and desires of consumption, problems related to the substances, abandonment of activities, relationship between family members, and attempted addiction control.

In the first block, the first question identifies drug use. The response format is dichotomous with a scale of 0 and 3, where 0 means no and 3 yes. The second block consisted of four questions, and the third block consisted of two questions. Both have a Likert-type scale, described below. The second block consisted of questions 2, 3, 4 and 5, referring to the frequency of consumption. It is coded according to the question. For question two, its values are 0 (never), 2 (once or twice), 3 (every month), 4 (every week), and 6 (daily or almost daily); for question three, its values are 0 (never), 3 (once or twice), 4 (every month), 5 (every week), and 6 (daily or almost daily); for question four, its values are 0 (never), 4 (once or twice), 5 (every month), 6 (every week), and 7 (daily or almost daily); and for question five, its values are 0 (never), 5 (once or twice), 6 (every month), 7 (every week), and 8 (daily or almost daily). The third block consisted of questions 6 and 7 that refer to family interest and the control of the consumption of a drug. Its answers are coded in 0 (no, never), 6 (yes, in the last three months), and 3 (yes, but not in the last three months). The cut-off points were scores from 0-3 do not require intervention, from 4-26 brief intervention, and scores >27 intensive intervention. Therefore, subjects with a score greater than 4 points were considered to make up the sample.

To estimate the level of self-esteem in adolescents, the Rosenberg instrument was utilized in its Spanish version.[25] It includes ten items whose contents focus on feelings of respect and acceptance of oneself. The first half of the items are stated positively and the other half negatively. The response scale is Likert type, from A to D, where A means strongly agree and D strongly disagree. The minimum value is 10 and the maximum 40, so the cut-off point <25 points is considered low self-esteem, from 26 to 29 medium self-esteem, and >30 high self-esteem. It is interpreted that the higher the score, the higher the self-esteem. Both instruments were utilized in Mexicans with Cronbach alphas of .84 and .82 to .84 respectively.

Procedures
The intervention was approved by the ethics committee of the Universidad Veracruzana, after which the population was recruited by invitation, and subsequently, informed consent forms were signed and the intervention began, which consisted of 11 sessions in the Cases group with an average duration of 90 minutes. The sessions were focutilized on increasing self-esteem in adolescents with addiction problems.

The first and second sessions reflected on addictive substances and self-esteem and general information on alcohol, tobacco, cannabis, and inhalants as well as the phases of the addictive process. The third and fourth sessions dealt with the promotion of health and prevention of addictions and the detection of risk factors and protection associated with drug use. The fifth and sixth sessions dealt with the topics of 'Learning to know myself' and techniques for 'Saying No' related to communication and assertiveness. In the seventh and eighth sessions, the topic of Problem Solving, Critical and Creative Thinking, and Control of Emotions was dealt with. During the ninth and tenth, the sessions were focutilized on the psychoeducational approach to self-esteem and addictive substances. Finally, in the eleventh session, a life project was realized.

The eleven sessions were distributed over a period of five weeks with a test measurement in the first session, a measurement at the midpoint of the intervention in the sixth session, and a retest in the last session. For the control group, five sessions were carried out, and the topics addressed information based on the interests of these adolescents.

To better understand the distribution of the sessions, the Case group is represented with 11 sessions which are symbolized from numbers 1 to 11, while the Control group is represented with 5 sessions symbolized by numbers 1 to 5. In both groups, a test was administered at the beginning of the intervention and is represented by the letter A, a second measurement was taken at the midpoint of the intervention represented by the letter B, and a retest was administered at the conclusion of the intervention corresponding to the letter C (Table 1).

Table 1: Distribution of sessions for the parallel groups.

Group	Sessions										
Cases	1	2	3	4	5	6	7	8	9	10	11
	A					B					C
Control	1		2			3		4			5

The study was adjusted to the General Law of Health in Research Matters. During the procedures, respect for the dignity, privacy, and protection of the rights of the research subject prevailed; informed consent was obtained in writing and approved by the ethics committee of the Universidad Veracruzana School of Nursing. The interventions of the Cases group were given in a lower dose to the Control Group after the second measurement to prevail the equality of conditions and advantages of the treatment between both groups.

Statistical analysis plan
To describe the characteristics of the sample and the variable results, the measurements of central tendency (mean and standard deviation) were utilized. The scores obtained for the level of self-esteem were subjected to the Kolmogorov-Smirnov (KS) test to verify that the distribution curve of the variable was normal. In the case of not obtaining significance to contrast the effect of the intervention between the subjects of the same group through the three measurements, the one-factor ANOVA parametric test was used, and in the opposite case, the non-parametric Kruskal-Wallis statistic was used. To contrast the results between Cases and Control with respect to the test and retest, a Student's t-test with a 95% confidence interval for independent samples or a Mann Whitney U test was utilized to compare medians, depending on the normality of the results. This analysis was performed using the IBM-SPSS 22.0 computer version.
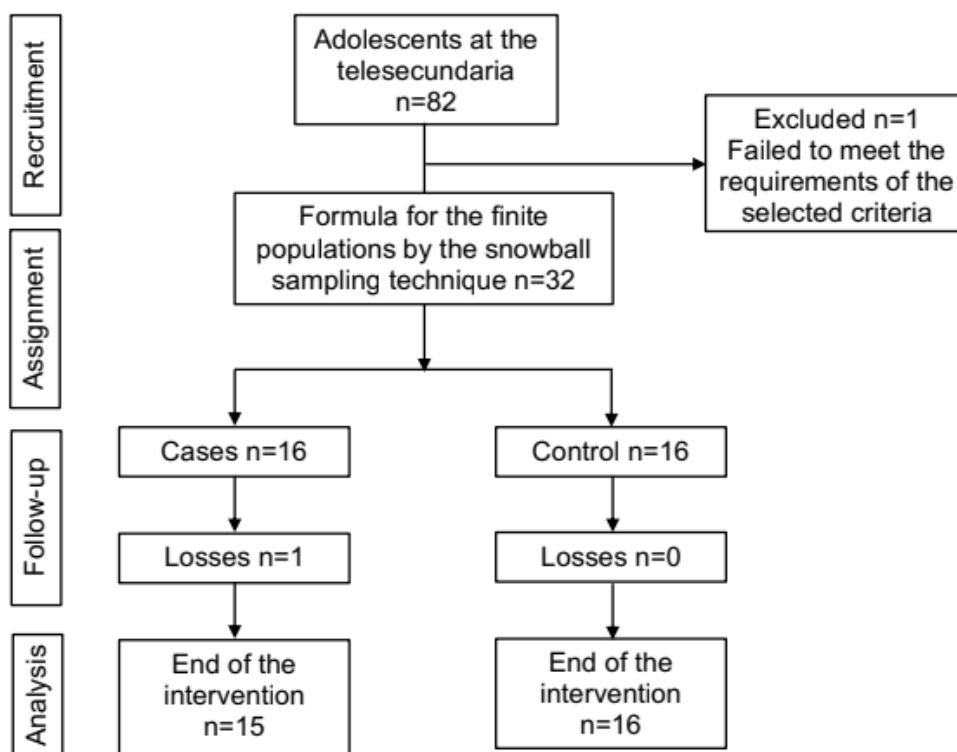

Figure 1: Flow diagram of the progress of the intervention.

RESULTS
In the data analysis, descriptive statistics of frequency and percentage, measures of central tendency (minimum value, maximum value, mean, median, and mode), and inferential statistics with the Kolmogorov-Smirnov test to analyze the distribution and homogeneity of the variables were utilized. The parametric Student's t test was utilized for the variables of self-esteem, consumption of tobacco, alcohol, cannabis, and the non-parametric and the Chi square for inhalant consumption, in the control group. Through the Cronbach's Alpha Coefficient, the internal homogeneity or consistency of the instruments was evaluated.

The distribution of the sample group by age indicates a mean of 15, median of 15, and mode of 14, obtaining the same percentage (33.3%) for the three groups, with a predominance of males (73.3%). In reference to the control group, the measures of central tendency for the same variable were a mean of 15.13, median of 15, and mode of 15, with a predominance of males (62.5%), observing in both groups that the population was integrated with similar values and ages that adolescents normally have while enrolled in middle / high school.

Starting again with the sample group (Cases), the exposure of personal biological factors on the self-esteem index presents a minimum value of 27 in the first measurement and a maximum of 60, with a mode of 43 and a mean of 43.3, indicating that adolescents were identified as having a low self-esteem, according to the scores assigned to the instrument (0-50 low, 51-76 medium, and 77-100 high). However, this variable increased at the end of the intervention, observing

significant increases in self-esteem scores with a minimum value of 40 and maximum of 67, a mode of 60, and an average of 53.7, indicating that adolescents' self-esteem increased by the end of the intervention, registering a medium level of self-esteem.

When evaluating the consumption of substances such as tobacco, alcohol, cannabis, and inhalants, 100% of the participants in the sample group (Cases) showed moderate consumption, according to the scores assigned to the instrument (0-33 low, 34-66 moderate, 67-100 high); for alcohol consumption the initial mean was 44.44, tobacco 30.79, alcohol 37.14, cannabis 33.17, and inhalants 30.32, also denoting a minimum score, at the beginning of the intervention. At the end of the study, the final means were tobacco 26.83, cannabis 23.65, and inhalants 24.13. However, in alcohol consumption, the minimum value obtained was 21 and 64 the maximum,

with an average of 42.42, demonstrating that there were people who increased alcohol consumption.

On the other hand, the statistical indices of the control group showed low and medium levels of self-esteem, with a mean of 44.22, a median of 50.00, and a minimum score of 23, and a maximum of 60. In the second evaluation, this decreased significantly, since the minimum and maximum scores were 17 and 53, with a large part of the participants having a low self-esteem. Regarding substance use, the minimum score for alcohol, tobacco and inhalants was 14, for tobacco 17, and it demonstrated that all the participants had a low habitual use of all the mentioned substances. At the end of the study, the use of inhalants had decreased with a mean of 23.02, compared to the initial one that was 28.10, although they were not subjected to any intervention treatment. The variables of tobacco, alcohol, and cannabis behaved in a similar way as the beginning.

Table 2: Kolmogorov Smirnov test, sample group (Cases).

Kolmogorov-Smirnov test for the sample				
Variables of the study	**1st Measurement**		**3rd Measurement**	
	Z de KS	**Sig. Asintót**	**Z de KS**	**Sig. Asintót**
Self-esteem	.606	.857	.732	.658
Tabacco consumption	.669	.762	.977	.296
Alcohol consumption	.798	.547	.679	.747
Cannabis consumption	.538	.934	1.147	.114
Inhalants consumption	.699	.713	.604	.859

Note: *Source:* direct, *n=15.*

The homoscedasticity of the Cases group in relation to the self-esteem variable was determined by running the Kolmogorov Smirnov test, obtaining a normal distribution of (Sig. 857;> 0.05) before starting the intervention and in the third measurement (Sig. 658;> 0.05). In relation to the variables of substance use in the first and third measurements, they had homogeneous behaviors; tobacco consumption (Sig. 762;> 0.05 and

Sig. 296; > 0.05), alcohol consumption (Sig. 547;> 0.05 and Sig. 747;> 0.05), cannabis consumption (Sig. 934;> 0.05 and Sig. 114;> 0.05), and inhalants consumption (Sig. 713;> 0.05 and Sig. 859 ;> 0.05). The variables had similar distributions. Given the results, it was determined to administer parametric tests, such as paired Student's t test, to analyze the pre and post arithmetic means of the group (Table 2).

Table 3: Kolmogorov Smirnov test, Control group.

Kolmogorov-Smirnov test for a sample				
Variables of the study	**1st Measurement**		**3rd Measurement**	
	Z from KS	**Sig. Asintót**	**Z from KS**	**Sig. Asintót**
Self-esteem	.865	.442	.774	.587
Tabacco consumption	.849	.466	.943	.336
Alcohol consumption	1.110	.170	.624	.831
Cannabis consumption	.713	.689	.916	.370
Inhalants consumption	1.004	.266	1.421	.035

Note: Source*: direct, *n=16.*

The results obtained from the control group showed a normal distribution at the beginning and at the end of the intervention. The results were as follows: self-esteem (Sig. 442;> 0.05 and Sig. 587;> 0.05), tobacco

consumption (Sig. 466;> 0.05 and Sig. 336;> 0.05), alcohol consumption (Sig. 179;> 0.05 and Sig. 831;> 0.05), and cannabis consumption (Sig. 689;> 0.05 and Sig. 370;> 0.05). The inhalant consumption variable only

showed normal distribution at the beginning of the intervention (Sig. 266> 0.05), but not at the end of the intervention (Sig. 035; <0.05). In relation to the results shown, parametric student's t test was administered for the variables of self-esteem, tobacco consumption, alcohol consumption, cannabis consumption, and non-parametric Chi square for the variable inhalant consumption (Table 3).

Table 4: Self-esteem of the students: Student's t test.

Groups	Self-esteem (1st Measurement)			Self-esteem (3rd Measurement)		
	$\bar{\chi}$	t	p	$\bar{\chi}$	t	p
Cases $n_1 = 15$	44.44	.060	.953	53.78	3.829	0.002
Control $N_2 = 16$	44.22			42.44		

Note: Source: Rosenberg self-esteem scale (Rosenberg, 2965).

Table 4 shows the self-esteem of the participants before and after the intervention. The comparison of the means of self-esteem reflected to be higher in the Cases group than in the control group; by running the statistical Student's t test, the study was able to identify that self-esteem was not different in the Cases group and Control group before the intervention (t (14) =. 953; p =>. 05).

On the other hand, after the study, the existence of significant differences was found (t (14) = 3,829; p = <. 05), observing that the self-esteem means increased in the Cases group, but not in the Control group, the self-esteem means decreased and did not maintain their initial range, proving the hypothesis to be true that a greater participation in a cognitive-behavioral intervention, and a high self-esteem reduces the consumption of addictive substances; and this validates the effectiveness of the intervention design in the Cases group.

Table 5: Students' consumption of tobacco: Student's t test.

Groups	Consumption of tobacco (1st Measurement)			Consumption of tobacco (3rd Measurement)		
	$\bar{\chi}$	t	p	$\bar{\chi}$	t	p
Cases $n_1 = 15$	30.79	-2.210	.044	26.83	-2.060	.059
Control $N_2 = 16$	38.41			35.40		

Note: Source: Detection of consumption of alcohol, tobacco, and substances Questionnaire ASSIST (OPS, 2010).

For the tobacco consumption variable, in Table 5, it was observed that the means of consumption were higher in the control group than in the Cases group before the intervention ($\bar{\chi}$ = 30.79 vs 38.41); however, the consumption of tobacco in the Cases group decreased by the end of the intervention, as expressed by the population mean ($\bar{\chi}$= 30.79 vs. 26.83), showing statistical significance (t (14) = - 2,060; p> .05), proving the design of the intervention as effective in this group.

Table 6: Students' Consumption of alcohol: Student's t test.

Groups	Consumption of alcohol (1st Measurement)			Consumption of alcohol (3rd Measurement)		
	$\bar{\chi}$	t	p	$\bar{\chi}$	t	p
Cases $n_1 = 15$	37.14	-.417	.683	42.42	2.126	.052
Control $N_2 = 16$	38.41			35.24		

Note: Source: Detection of consumption of alcohol, tobacco, and substances Questionnaire ASSIST (OPS, 2010).

For the analysis of alcohol consumption, the results of the means (Table 6) showed a higher prevalence before the intervention in the control group ($\bar{\chi}$ = 38.41 vs 37.14); however, the means decreased by the end of the intervention, not in the Cases group, which increased by the end of the intervention, in general per group. There was no statistical significance (t (14) = 2,126; p =>. 05), that is to say, the control group decreased consumption

in relation to that of the Cases group, after the intervention (t (14) = 2,126; p = <. 05).

Table 7: Students' Consumption of cannabis: Student's t test.

Groups	Consumption of cannabis (1st Measurement)			Consumption of cannabis (3rd Measurement)		
	$\bar{\chi}$	t	p	$\bar{\chi}$	t	p
Cases $n_1 = 15$	33.17	.930	.368	23.65	-1.679	.115
Control $N_2 = 16$	30.00			30.95		

Note: Source: Detection of consumption of alcohol, tobacco, and substances Questionnaire ASSIST (OPS, 2010).

In the variable consumption of cannabis, the results of the means are observed in Table 7 of both groups, showing a higher consumption in the control group at the beginning of the intervention ($\bar{\chi}$ = 33.17 vs 30.00); however, at the end of the intervention, it is shown that consumption of cannabis decreased in the Cases group ($\bar{\chi}$ = 23.65 vs. 30.95), but not in the control group, which increased its consumption. Given this, it is shown that there was no statistical significance, by comparing arithmetic means of the populations (t (14) = - 1,679; p =>. 05).

Table 8: Students' Consumption of inhalants: Student's t test.

Groups	Consumption of inhalants (1st Measurement)		Consumption of inhalants (3rd Measurement)		Sig. bilateral
	$\bar{\chi}$	Dt	$\bar{\chi}$	Dt	
Cases $n_1 = 15$	30.32	11.002	24.13	5.464	.066*

Note: Source: Detection of consumption of alcohol, tobacco, and substances Questionnaire ASSIST (OPS, 2010).

For the analysis of the variable of consumption of inhalants in the Cases group, which showed homoscedasticity, the results in Table 8 show a decrease in consumption, comparing the means using the Student's t-test for related samples, before and after the intervention ($\bar{\chi}$ = 30.32 vs 24.13), showing statistical significance (t (14) = 1,992; p =>. 05), that is to say, the consumption of inhalants decreased at the end of the intervention.

Table 9: Students' Consumption of inhalants: Chi Cuadrada.

Groups	Consumption of inhalants (1st Measurement)				Consumption of inhalants (3rd Measurement)			
	Si (%)	No (%)	x^2	p	Si (%)	No (%)	x^2	P
Control $n_1 = 16$	56.3	43.8	11.133	.133	25	75	20.600	.001

Note: Source: Detection of consumption of alcohol, tobacco, and substances Questionnaire ASSIST (OPS, 2010).

For the variable consumption of inhalants (Table 9), the Chi-square statistics are shown in Table 9, with 56.3% of the total population having consumed inhalants before the study, not showing a statistically significant difference before the intervention (X2 (1, n = 154) = 11,133, p = .001). In relation to the consumption of inhalants after the intervention, 75% of the participants decreased consumption, showing a statistically significant difference (X2 (1, n = 14) = 20,600, p = .001), a reason that indicates, since they are young and in an educational environment, consumption throughout this stage, is unstable and it is when consumption of drugs can become more acute and force adolescents into dependency and addiction, which is why nursing professionals must intervene in a timely manner to promote healthy lifestyles (Table 9).

DISCUSSION
The consumption of addictive substances is a phenomenon related to physical, psychological, and social development, which increases progressively from first contact until the desire to consume them cannot be

controlled. Due to this, the early identification of adolescents who consume them is important. The study consisted of a sample of 32 students from middle / high school, with ages ranging from 13 to 16; in the Cases group, the frequency by age was 33.3% (14-16), and in the Control group, it showed a greater number of participants aged 15 to 16 years with a frequency of 43.8% and 37.5% respectively. The results regarding the biological personal factors of the Cases group showed that the predominant gender was female with 73.3% aged 14-16 years, and in the Control group, the male predominated with 62.5% aged 13-16 years. In this data, it was observed that female students are proportional or greater in rural communities, indicating that the opportunity for the study of the female gender is greater, since it was considered formerly characteristic of traditional groups in Mexico, that the role of women in the home was important, that is to say, domestic work derived from their gender condition (Álvarez, 2011).

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