



## Risk Perception for alcohol and tobacco consumption in Saltillo's Health Sciences students

Percepción de riesgo ante el consumo de alcohol y tabaco en estudiantes de ciencias de la salud de Saltillo

Pedro González Angulo <sup>1</sup>

Eva Kerena Hernández Martínez <sup>2</sup>

Linda Azucena Rodríguez Puente <sup>2</sup>

Raúl Castillo Vargas <sup>3</sup>

Javier Salazar Mendoza <sup>4</sup>

Jasmin Urania Camacho Martínez <sup>5</sup>

(1) Master in Nursing, full-time research professor at the University Juárez Autónoma de Tabasco, multidisciplinary academic division of Jalpa de Méndez. México. [pedrogonzalez8203@gmail.com](mailto:pedrogonzalez8203@gmail.com)

(2) Phd in Nursing, Full-Time Research Professor at Universidad Autónoma de Coahuila, School of Nursing, Saltillo unit. México.

(3) Master in Health Multidisciplinary Research, Full-time research professor at the University Autónoma de Coahuila, Faculty of Nursing, Saltillo Unit. México.

(4) Phd. in Legal, Administrative and Educational Sciences, full-time professor at University Veracruzana, Faculty of Nursing, Orizaba region. México.

(5) Master in Nursing Sciences, full-time research professor at the University Juárez Autónoma de Tabasco, multidisciplinary academic division of Jalpa de Méndez. México.

<http://dx.doi.org/10.6018/eglobal.18.4.351381>

Received: 28/11/2018

Accepted: 6/02/2019

### ABSTRACT:

**Introduction:** Public health problems caused by the consumption of psychoactive substances have reached alarming proportions and constitute an important and largely preventable health and social burden on a global scale.

**Objective:** To identify the relationship between risk perception and alcohol and tobacco consumption in health sciences university students of a public educational institution of Saltillo, Coahuila, Mexico.

**Methodology:** The study design is descriptive and correlational, with a sample of 609 students selected by stratified probabilistic sampling. A personal data card and the prevalence of alcohol and tobacco consumption, the risk perception questionnaire for the consumption of licit drugs and the test for the identification of disorders due to alcohol use were used. The present study is under the provisions of the Regulation of the General Health Law on Research for Health in Human Beings in Mexico.

**Results:** The amount of cigarettes consumed and the age of the participants presented a statistically significant relationship ( $r_s=0.156$ ,  $p=.026$ ) as well as the perception of risk and the amount of alcoholic beverages consumed, had a significant negative relationship ( $r_s=-0.102$ ,  $p=.026$ )

**Conclusion:** The study provides accurate and timely information regarding the profile of alcohol and tobacco consumption in health science students.

**Keywords:** Alcohol consumption, tobacco consumption, students, perception.

## RESUMEN:

**Introducción:** Los problemas de salud pública causados por el consumo de sustancias psicoactivas han alcanzado proporciones alarmantes y constituyen a escala mundial una carga sanitaria y social importante y en gran medida prevenible.

**Objetivo:** Identificar la relación entre la percepción de riesgo y consumo de alcohol y tabaco en estudiantes universitarios de ciencias de la salud de una institución pública educativa de Saltillo, Coahuila, México.

**Metodología:** El diseño del estudio es de tipo descriptivo y correlacional, con una muestra de 609 estudiantes seleccionados por el muestreo probabilístico estratificado. Se utilizó una cédula de datos personales y de prevalencia de consumo de alcohol y tabaco, el cuestionario de percepción de riesgo hacia el Consumo de Drogas Lícitas y la Prueba de Identificación de Desórdenes por Uso de Alcohol. El presente estudio se apegó a lo dispuesto en el Reglamento de la Ley General de Salud en Materia de Investigación para la Salud en Seres Humanos en México.

**Resultados:** La cantidad de cigarrillos consumidos y la edad de los participantes presentaron una relación estadísticamente significativa ( $rs=0.156$ ,  $p= .026$ ) al igual que la percepción de riesgo y la cantidad de bebidas Alcohólicas consumidas, tuvo una relación significativa negativa ( $rs=-0.102$ ,  $p=.026$ )

**Conclusión:** El estudio aporta información veraz y oportuna en cuanto al perfil del consumo de alcohol y tabaco en estudiantes de ciencias de la salud.

**Palabras Clave:** Consumo de Alcohol, consumo de Tabaco, Estudiantes, Percepción.

## INTRODUCTION

Public health problems caused by the consumption of psychoactive substances have reached alarming proportions and constitute an important and largely preventable health and social burden worldwide <sup>(1)</sup>. Around the World, 3.3 million people died in 2012 due to harmful use of alcohol. On average, each person aged 15 or older drinks about 6.2 liters of pure alcohol annually, but less than half of the population (38.3%) drink alcohol, which implies that those who drink it, on average consume 17 liters of pure alcohol per year <sup>(2)</sup>.

Likewise, it is pointed out that a bigger percentage of men, than women die from causes related to alcohol, 7.6% of men and 4% of women, although there is evidence that women may be more vulnerable to the noxious effects in comparison with men. There is concern about the steady increase in alcohol consumption among women <sup>(2)</sup>.

People start with alcohol consumption for various reasons, mainly curiosity (29.4%), followed by friends' invitation (13.5%), experimentation (12.4%), family problems (10%), influence of friends (9.4%), group acceptance (4.1%), family invitation (2.9%) or depression (2.4%). 63% of the population identified as consuming alcohol are adolescents and young people between ages 12 and 24 <sup>(3)</sup>.

In this same matter, there has been an increase in the pattern of alcohol consumption in Mexico between 2011 and 2016, going from 12.3% to 19.8%. In the case of men it increased from 20.9% to 29.9% and in women from 4.1% to 10.3%, this in the general population. Likewise, in population older than 18 years of age, the percentage increased from 13.9% to 22.1% the last month. In this same consumption, the last month the following states excel with values higher than the national average (19.8%): Nuevo León (30.3%), Jalisco (27.7%), Coahuila (27.5%), among others <sup>(4)</sup>.

In terms of per capita consumption, the population reports ingesting 4.9% liters of pure alcohol. When separated by sex, men consume 7.9 liters, while women drink 2.1 liters. By age range, the group of 18 to 29 years is the one that presents the highest per capita consumption (7.6 liters), followed by the population of age 15 to 17 with 5.9

liters. In addition to this, there is the phenomenon of pre-drinking (also known as pre-gaming, in which adolescents indicate taking a bigger amount of drinks (men 7.3 drinks, women 5.1 drinks) than young people from age 18 to 29 (5.2 drinks in men and 4.1 drinks in women). With regard to those who prefer pre-drinking, both men (88.5% from 12 to 17 years old and 85.2% from 18 to 29 years old) and women (82.5% from 12 to 17 years old and 80.6% from 18 to 29 years old), do with their friends, followed by their co-workers/school (15.7% and 20.6% in men and 16.2% and 10.4% in women), having beer as preference in 19.1% in minors and 30.6% for young people from 18 to 29 years old <sup>(4)</sup>.

In terms of tobacco consumption, the worldwide prevalence of smokers has decreased, there are currently 1.1 billion adult smokers in the world and less than 367 million consumers of smokeless tobacco. There are 132 million smokers in the Americas <sup>(5)</sup>. Tobacco kills more than 7 million people every year, of whom more than 6 million are consumers of the product and about 890,000 are non-smokers exposed to second-hand tobacco smoke <sup>(6)</sup>.

In Mexico, it is reported that 14.9 million Mexicans are current smokers (3.8 million women and 11.1 million men, 17.6% of the population are between 12 and 65 years of age), of which 5.4 million smoke daily and 9.4 million occasionally. It is estimated that 43,000 people die annually from diseases attributable to smoking, accounting for 8.4% of the total deaths in the country. The average age of initiation of daily tobacco use is 21.0 for women and 18.8 for men. Daily smokers consume an average of 7.4 cigarettes per day <sup>(7)</sup>.

On the other hand, 73.6% of current smokers in Mexico are interested in quitting smoking in the future. 32.2% of them are aware of the free telephone number 01 800 that offers support to quit smoking. However, among those who know the number, only 4.1% have called to receive information. Current smokers aged 12 to 65 years, 24.4% reported receiving recommendations to quit smoking, while 56.1% tried at least once in the last year (9.9 million). These, along with the fact that 98.4% of current smokers know that smoking tobacco causes serious illnesses <sup>(7)</sup>, that is to say, that even when they know the risks associated with tobacco consumption, they continue to do so.

It should be noted that in the state of Coahuila, 499 thousand people are current smokers (137 thousand women, 362 thousand men) of which 228 thousand do it daily and 271 thousand occasionally. The average age of onset of tobacco use in this state is 20.5 in women and 19.8 in men. Daily smokers consume an average of 6.5 cigarettes per day <sup>(7)</sup>.

Regarding the risk perception, it is considered as knowledge of damages, consequences of drug consumption and the severity attributed to them. This perception is considered as a subjective barrier for the consumption of substances and, therefore, the higher the risk perception, the lower the consumption of licit and illicit drugs <sup>(8)</sup>. In most cases, this perception can help decrease the consumption of some substance but in most cases, it is not.

Traditionally, young people enter the university at around 18 years old, facing the changes that academic life, new friends and the environment can bring. Several researches have shown that, in general, they adopt habits that represent risks to their health, including smoking, alcohol consumption, physical inactivity, unhealthy eating practices, among others. <sup>(9)</sup>

This research focused its attention on health sciences university students, due to the vulnerability found by physiological, social and psychological changes. In addition, by generating greater fragility in order to address the problems, understand reality and life itself, search for pleasure and wellbeing, coupled with the availability for access and situations that lead to consumption; as also, for being a group of future health professionals with a social commitment on the problem of addictions <sup>(10)</sup>.

## OBJECTIVE

To identify the relationship between risk perception and alcohol and tobacco consumption in health sciences university students of a public educational institution in Saltillo, Coahuila, Mexico.

## MATERIAL AND METHODS

### Study design

The study design is descriptive and correlational, because the risk perception and the alcohol and tobacco consumption of the university students of health sciences was described and the relationship between the aforementioned variables was determined<sup>(11)</sup>.

### Population, sample and sampling

The population consists of 1,304 students from a Public University located in the City of Saltillo in the state of Coahuila, Mexico. A sample of 609 students was obtained which was calculated using the formula for finite samples, estimating a confidence level of 95% and an error level of 5%. Students' selection was made through simple random probabilistic sampling <sup>(11)</sup>.

### Instruments

For the data collection, a personal data card and the prevalence of alcohol and tobacco consumption was used, which was divided into three sections: 1) personal aspects (age, sex, education, marital status, occupation); 2) aspects related to alcohol consumption (age of onset, number of alcoholic beverages and type of prevalence) and 3) aspects related to tobacco consumption (age of onset, number of cigarettes consumed and type of prevalence).

To measure the risk perception towards tobacco and alcohol consumption, the Risk Perception Questionnaire for the Consumption of Licit Drugs [CPRCDL as in Spanish] prepared by Uribe, Verdugo and Zacarías<sup>(12,13)</sup> was used. The instrument consists of 38 items composed of five sub-tiers: negative consequences of alcohol consumption (items 8, 10, 11, 12, 13, 14, 19, 20 and 34), Negative attitude towards the consumption of licit drugs (items 27, 28, 29, 30, 35, 36, 37 and 38), Consumption of licit drugs to have new friends and sensations (items 22, 23, 24, 25, 26, 31 and 32), Consumption of licit drugs as coping and belonging (items 1, 2, 3, 4, 5, 6, 7, 15, 16, 17, and 18) and lastly, the sub-tier of Negative consequences of tobacco consumption (items 9, 21 and 33).

The response options are of Likert type with five response options where 1 = Strongly disagree, 2 = Disagree, 3 = Not at all agree, 4 = Agree and 5 = Strongly agree. It should be noted that, only in the sub-tiers: Consumption of licit drugs to have friends and new sensations and the sub-tier Consumption of licit drugs such as coping and belonging, were inverted; that is, the response options were valued as 1 = Strongly agree, 2 = Agree, 3 = Not at all agree, 4 = Disagree and 5 = Strongly disagree<sup>13</sup>. Subsequently, the scale was transformed to a global index and for each one of the sub-tiers with values from 1 to 100 where the higher the score, the greater the risk perception. This questionnaire in this study obtained a Cronbach's Alpha of = 0.82 which is considered with an acceptable internal consistency<sup>(11)</sup>.

The Alcohol Use Disorders Identification Test [AUDIT], developed by the WHO and validated for the Mexican population, was applied for alcohol consumption<sup>(14-15)</sup>. This questionnaire consists of 10 multiple-choice items that examine the consumption of alcohol, and determine the types of alcohol consumption of individuals (sensible, dependent and harmful). Items 1 to 3 determine the amount and frequency of alcohol consumption and the consumption without risk or sanity; items 4 to 6 dependent or risked consumption and items 7 to 10 allow harmful consumption. The minimum total score of the questionnaire is 0 and the maximum is 40: the scores from 0 to 3 are considered a sensible consumption; from 4 to 7, dependent consumption and from 8 points to 40, harmful consumption. The authors of this instrument report a sensitivity of 80% and a specificity of 89%. This questionnaire in this study obtained an Cronbach's Alpha of  $\alpha=0.85$  which is considered with an acceptable internal consistency.

### **Procedure**

Data collection was carried out in a Public University, in the City of Saltillo, in the state of Coahuila, Mexico, in the month of May 2018, with the prior authorization of the management personnel, who were informed about the purpose of the work. The application of the instruments was carried out in a group manner in the classrooms under the supervision of the researchers, who requested the informed consent of the students and were at all times to clarify the doubts they had regarding the instrument.

### **Selection criteria**

**Inclusion:** All students enrolled in the Bachelor of Medicine, Dentistry and Nursing, both sexes, legal age, with wishes and availability to participate.

**Exclusion:** Students who do not attend classes on the day of the instrument application or who do not wish to participate in the study.

**Elimination:** Students who leave the instrument unfinished, who mark more than one answer option and those who leave the research at the time of answering the questionnaire.

### **Ethical considerations**

The present study adhered to the provisions of the Regulation of the General Health Law on Research for Health in Human Beings in Mexico<sup>(16)</sup>. Title Two of the ethical aspects of research on human subjects was considered, Chapter I, Articles 13, 14, 16, 17, 20, 21, 36, 57 y 58. In addition, the Declaration of Helsinki on the ethical principles for medical research in humans<sup>(17)</sup>, and the Official Mexican Standard NOM-012-

SSA3-2012, which establishes the criteria for the execution of research projects for health in humans were taken into account.

### Data analysis

The data was processed in the statistical program Statistical Package for the Social Sciences (SPSS) version 22 for Windows. The internal consistency of the instrument was determined through Cronbach's Alpha Coefficient <sup>(11)</sup>. Descriptive statistics was used to obtain frequencies, proportions, measures of central tendency and dispersion. Similarly, the Kolmogorov-Smirnov test was calculated with Liliefors correction to determine the normality in the distribution of the numerical variables, obtaining a value of  $p < .05$ , so it was decided to use nonparametric statistical tests for the coefficient of Spearman correlation.

## RESULTS

It was identified that 65.2% ( $n = 397$ ) of the sample corresponds to the female sex; in terms of age, 83.8% ( $n = 511$ ) of the students are between 18 and 22 years old. Regarding the school grade, 25.5% ( $n = 155$ ) attends the second semester, 16.1% ( $n = 98$ ) the sixth semester and the rest in the other semesters in lower proportions. With regard to the degree studied, 42.7% ( $n = 260$ ) correspond to Nursing, 29.6% ( $n = 180$ ) Dentistry and the rest to Medicine. 23.8% ( $n = 145$ ) of the sample study and work, and of that percentage, only 8.1% ( $n = 45$ ) perform activities related to the health area.

The participants presented an average age of 20.1 ( $SD = 2.4$ ), on average they started alcohol consumption at age 16.5 ( $SD = 1.8$ ), and it is also reported that the population consumes on average 4.5 ( $SD = 2.9$ ) alcoholic beverages in only one occasion.

Concerning the AUDIT, the highest average was for sensible consumption ( $\bar{X} = 4.0$ ,  $SD = 2.4$ ), followed by harmful ( $\bar{X} = 1.43$ ,  $DE = 2.2$ ) and dependent ( $\bar{X} = .71$ ,  $DE = 1.4$ ). It was identified that the average age of onset of tobacco consumption was 17 ( $SD = 2.0$ ) and the average consumption on participants is 2.9 ( $SD = 2.9$ ) cigarettes on only one occasion (Table 1).

**Table 1.** Sociodemographic, alcohol, and tobacco consumption data.

Variable	n	$\bar{X}$	Mdn	SD	Value	
					Min	Max
Age in years	609	20.1	20	2.4	16	44
Age of onset of alcohol use	557	16.5	17	1.8	8	30
Amount of drinks consumed *	475	4.5	4	2.9	1	20
General AUDIT**	475	6.15	5.0	5.1	1	30
Sensible consumption**	475	4.0	4.0	2.4	1	12
Dependent consumption**	475	.71	.0	1.4	0	9
Harmful consumption**	475	1.43	.0	2.2	0	13
Age of onset of tobacco use*	353	17	17	2.0	10	30
Amount of cigarettes**	207	2.9	2	2.9	1	20

**n** = sample,  $\bar{X}$  = average, **Mdn** = median, **SD** = standard deviation, **Min** = Minimal, **Max** = Maximum, **AUDIT** = Questionnaire for identifying disorders due to alcohol use, \* people who used alcohol and tobacco at some time in their life, \* \*Alcohol and tobacco users in the last year.

It was identified that 91.5% ( $n = 557$ ) of students have consumed alcohol at some time in their lives, 78.8% ( $n = 480$ ) in the last year, 65.5% ( $n = 399$ ) in the last month and 36.3% ( $n = 221$ ) in the last seven days. Similarly 58.1% ( $n = 354$ ) have used tobacco at some time in their lives, 33.7% ( $n = 205$ ) in the last year, 29.9% ( $n = 182$ ) in the last month and 20.5% ( $n = 125$ ) in the last seven days (Table 2).

**Table 2.** Global, current and instantaneous prevalence of alcohol and tobacco consumption.

Variable	Yes		No	
	f	%	f	%
<b>Alcohol consumption</b>				
Once in a lifetime	557	91.5	52	8.5
In the last year	480	78.8	129	21.2
In the last month	400	65.7	209	34.3
In the last seven days	222	36.5	387	63.5
<b>Tobacco consumption</b>				
Once in a lifetime	354	58.1	255	41.9
In the last year	205	33.7	404	66.3
In the last month	182	29.9	427	70.1
In the last seven days	125	20.5	484	79.5

f= Frequencies, %= Percentage

Source: self made

With regard to students who have consumed alcohol in the last year and taken as a reference the types of consumption according to the classification established by the AUDIT, it was identified that 29.9% ( $n = 182$ ) of students practice a sensible; 25.9% ( $n = 158$ ), dependent and 22.3% ( $n = 136$ ), harmful consumption of alcohol. With respect to gender, it was identified that 49.1% ( $n = 144$ ) of women have a sensible consumption and 40.7% ( $n = 74$ ) of men have a dependent consumption (Table 3).

**Table 3.** Type of Alcohol consumption (AUDIT) and Gender

Type of consumption	Gender				Total	
	Man		Woman			
	F	%	f	%	f	%
Sensible consumption	37	20.3	144	49.1	181	29.7
Dependent consumption	74	40.7	84	28.7	158	25.9
Harmful consumption	71	39.0	65	22.2	136	22.3
<b>Total</b>	<b>182</b>	<b>100%</b>	<b>293</b>	<b>100%</b>	<b>475</b>	<b>100%</b>

f= Frequencies, %= Percentage

Source: self made

Regarding the Risk Perception Questionnaire for the Consumption of Licit Drugs [CPRCDL as in Spanish] Questionnaire, according to the global index of risk perception, a high average was obtained ( $\bar{X} = 64.4$ ,  $SD = 10.1$ ), that is to say, that most of students have a high risk perception, however, with respect to the subscales, the highest averages were Negative Consequences of smoking ( $\bar{X} = 81.0$ ,  $SD = 16.1$ ), followed by the negative attitude towards drug use ( $\bar{X} = 74.8$ ,  $SD = 14.4$ ) and the Negative Consequences of Alcohol Consumption ( $\bar{X} = 74.5$ ,  $SD = 16.8$ ).

**Table 4.** Risk perception rates for Alcohol and tobacco use.

Variable	n	$\bar{X}$	Mdn	SD	Value	
					Min	Max
Risk Perception Index	609	64.4	63.8	10.1	20	100
Negative consequences of Alcohol consumption*	609	74.5	75.0	16.8	0	100
Negative attitude towards drug use*	609	74.8	75.0	17.4	0	100
Use of licit drugs to have friends and new sensations*	609	44.3	39.2	22.7	0	100
Use of licit drugs as coping and belonging*	609	56.7	54.5	19.4	7	100
Negative consequences of Tobacco consumption*	609	81.0	83.3	16.1	0	100

n= sample,  $\bar{X}$ =average, **Mdn**= median, **SD**= standard deviation,

\* Sub-tiers of risk perception.

Regarding the results of the correlation, a statistically significant relationship was reported between the number of cigarettes consumed ( $r_s = 0.156$ ,  $p = .026$ ) and the age of the participants, that is to say, the higher the age, the higher the consumption of cigarettes.

Likewise, a statistically significant negative relationship was reported for the risk perception ( $r_s = -0.102$ ,  $p = .026$ ) and the amount of alcoholic beverages consumed; that is, that the lower the consumption of alcoholic beverages, the greater the risk perception.

**Table 5.** Spearman correlation of age, age of alcohol and tobacco consumption onset, alcohol and tobacco consumption and risk perception

Variable	1	2	3	4	5	6	7
Age <sup>1</sup>	1						
Age of onset of alcohol consumption <sup>2</sup>	.292**	1					
Amount of alcoholic beverages consumed <sup>3</sup>	.120**	-.224**	1				
Age of onset of tobacco consumption <sup>4</sup>	.286**	.569**	.008	1			
Amount of cigarettes consumed on a typical day <sup>4</sup>	.156*	-.040	.319**	-.189**	1		
AUDIT Summation <sup>3</sup>	.039	-.295**	.760**	-.023	.232**	1	
Sumatoria Percepción de riesgo <sup>1</sup>	.026	.202**	-.102*	.033	-.046	-.193**	1
	.530	.000	.026	.538	.510	.000	.

For the variables <sup>1</sup> n = 609, <sup>2</sup> n = 557, <sup>3</sup> n = 475, <sup>4</sup> n = 207; \* p = 0.05; \*\* p = 0.01.



## DISCUSSION

In the present investigation, the consumption of alcohol and tobacco was identified, as well as its relationship with the risk perception in a sample of 609 university students in the health sciences area, from a Public University in the state of Coahuila, Mexico.

It was identified that the participants are at an average age of 20 years old, initiating the consumption of alcohol and tobacco on average at 16.5, which agrees with Telumbre et al.<sup>(20)</sup>, Rodríguez et al.<sup>(21)</sup>, López et al.<sup>(10)</sup>, who indicate that the consumption of these substances begins at age 17 or younger, this may be because young people are currently in a stage of social development in which they seek the necessary behaviors to feel fully identified in society, however, these data are lower than the national average which places the beginning of alcohol consumption at 19.2 years of age<sup>(4)</sup>.

With respect to alcohol consumption, students ingest an average of 4.5 alcoholic beverages and 2.9 cigarettes per occasion. This coincides with the results of López et al.<sup>(10)</sup>, Navarro et al.<sup>(22)</sup> and Telumbre et al.<sup>(20)</sup>, in health science students, this is a worrisome fact, as it would be considered that they are the main promoters of health, starting with themselves, so that later they could guide others on how to take care of their health and prevent any addiction.

According to the prevalence of alcohol consumption, it was identified that 91.5% of students have consumed some time in their lives, 78.8% in the last year, 65.5% in the last month and 36.3% in the last seven days, said results were higher compared to that reported by Telumbre et al.<sup>(20)</sup> and Montoya et al.<sup>(24)</sup>, situation could be due to the social interaction that young people face in their daily life together with social relationships, socioeconomic status, marital status and place of residence, in the same way for the education that they themselves are adopting in the course of their lives, which have been proven that, in general, represent risks to their health in a very serious way.

Regarding the types of alcohol consumption, it was identified that 29.9% of the students show a sensible consumption of alcohol; 25.9%, a dependent consumption and 22.3%, a harmful consumption, data that is lower than that reported by López et al.<sup>(10)</sup>, who determined that 62% had a sensible consumption, 24.1 dependent consumption and only 13.7% a harmful consumption, but they are even lower than what Telumbre et al.<sup>(25)</sup> reported. This discrepancy may be due to the different socio-demographic status of the students, however, because the greater percentage are students of health sciences, is inferred than according to their knowledge in health, it may lead to sensible consumption.

With regard to tobacco consumption, it was identified that 58.1% have used tobacco at some time in their lives, 33.7% in the last year, 29.9% in the last month and 20.5% in the last seven days. These numbers were similar to what was found by López et al.<sup>(10)</sup> and Bautista et al.<sup>(26)</sup>. This is because the beginning of university life is around 18 years of age, in which various changes, both academic and personal, are faced, and in the same way they acquire new friends from whom they can probably acquire certain habits that can be considered as health risks, such as the consumption of substances such as tobacco.

On the other hand, regarding the risk perception of licit drugs, an average of 64.4 ( $SD = 10.1$ ) was obtained in the global index, that is, the majority of students have a high risk perception, however, as for the subscales, the highest averages were Negative consequences of tobacco consumption ( $\bar{X} = 81.0$ ,  $SD = 16.1$ ), followed by the negative attitude towards drug consumption ( $\bar{X} = 74.8$ ,  $SD = 14.4$ ) and the Negative Consequences of alcohol consumption ( $\bar{X} = 74.5$ ,  $SD = 16.8$ ), which indicates, according to the instruments, that students have a high perception of the negative consequences of tobacco consumption, drug consumption and alcohol consumption; however this has not been a trigger for them to stop using any harmful substance. These results are similar to those reported by Méndez et al.<sup>(13)</sup> and De San Jorge<sup>(27)</sup>. This is because it is a reality in young people today, that despite the ease they have to access information, no significant change has been caused in their behavior.

Regarding the results of the correlation, a statistically significant relationship was reported between the number of cigarettes consumed and the age of the participants, that is to say, the older they are, the higher the consumption of cigarettes. Likewise, a statistically significant negative relationship was reported for the risk perception and the amount of alcoholic beverages consumed; that is to say, that the lower the consumption of alcoholic beverages, the greater the risk perception. This data is similar to those presented by Uribe et al.<sup>(12)</sup> and Méndez et al.<sup>(13)</sup>, being a data that was expected to be found when having a greater perception they also have a lower amount of consumption, in this case of alcohol.

The results presented in this work have a specific relevance since the sample consisted of students of health sciences, who have the necessary knowledge about any type of addictions, as well as the adverse effects, that is why, in many cases they are considered as an example to follow in terms of health promotion, but seeing them in consumption can lead to confusion in many people for the lack of knowledge and actions with respect to health.

## CONCLUSION

It can be concluded that the results provide timely information regarding the profile of alcohol and tobacco consumption in health science students. Evidence shows that the type of alcohol consumption is of a sensible type, which would indicate that its formation can be a protective factor against the intake of this substance, however there should be a greater emphasis on health promotion activities and prevention of addictions in the different universities of the country, and not only in health careers.

These results contribute to a better understanding of the magnitude of alcohol and tobacco consumption among university students, specifically among health students who will become future professionals, as well as educators and motivators for the adoption of healthy lifestyles by the population.

Although the majority of the population presents a sensible consumption, there is a significant percentage that is already in the dependent and harmful consumption, probably caused by academic stress, family and friends influences, personal problems and because of this they could modify the type of consumption. This is why it is recommended to perform various nursing interventions or multidisciplinary teams that support reducing consumption of these types of substances such as tobacco and alcohol, as well as replicating this type of studies in other larger populations or perform

longitudinal studies to know and evaluate the behavior of this phenomenon in university students.

## REFERENCES

1. World Health organization [Internet]. The Public Health dimension of the world drug problem. Report of the 2016 secretariat. [Quoted May 20, 2018]. Available in [http://apps.who.int/gb/ebwha/pdf\\_files/EB140/B140\\_29-sp.pdf](http://apps.who.int/gb/ebwha/pdf_files/EB140/B140_29-sp.pdf)
2. Panamerican Health organization [Internet]. WHO World Report highlights the negative impacts of alcohol consumption on health 2014 [Quoted May 20, 2018]. Available in [https://www.paho.org/arg/index.php?option=com\\_content&view=article&id=1317:informe-mundial-de-la-oms-destaca-los-impactos-negativos-del-alcohol-en-la-salud&Itemid=226](https://www.paho.org/arg/index.php?option=com_content&view=article&id=1317:informe-mundial-de-la-oms-destaca-los-impactos-negativos-del-alcohol-en-la-salud&Itemid=226)
3. Secretary of Health [Internet]. Alcohol consumption increases among young people 2016. [Quoted May 20, 2018]. Available in <https://www.gob.mx/salud/articulos/aumenta-el-consumo-de-alcohol-entrejovenes>
4. National Survey of Drug, Alcohol and Tobacco Consumption [ENCODAT 2016-2017] [Internet]. Alcohol report. Available in [https://drive.google.com/file/d/1rMIKaWy34GR51sEnBK2-u2q\\_BDK9LA0e/view](https://drive.google.com/file/d/1rMIKaWy34GR51sEnBK2-u2q_BDK9LA0e/view)
5. World Health Organization [Internet] Smoking decreases, but more must be done to protect people and reduce deaths from heart disease that causes smoking and exposure to smoke 2018. [Quoted May 21, 2018]. Available in [https://www.paho.org/hq/index.php?option=com\\_content&view=article&id=14398%3Anew-report-shows-tobacco-use-is-falling-but-more-needed-to-protect-people-from-heart-diseases-and-other-noncommunicable-diseases&catid=740%3Apress-releases&Itemid=1926&lang=es](https://www.paho.org/hq/index.php?option=com_content&view=article&id=14398%3Anew-report-shows-tobacco-use-is-falling-but-more-needed-to-protect-people-from-heart-diseases-and-other-noncommunicable-diseases&catid=740%3Apress-releases&Itemid=1926&lang=es)
6. World Health organization [Internet]. Tabaco 2018. [Quoted May 21, 2018]. Available in <http://www.who.int/es/news-room/fact-sheets/detail/tobacco>
7. National Survey of Drug, Alcohol and Tobacco Consumption [ENCODAT 2016-2017] [Internet]. Tobacco report. Available in <https://drive.google.com/file/d/1lktptvdu2nsrSpMBMT4FdqBlk8gikz7q/view>
8. Mendez RMD, Alfonso CMT, Alfonso CMM, Uribe AJI, Armendáriz GNA. Perception of risk and alcohol consumption in adolescents Relationship. SMAD, Mental Health, Alcohol and Drugs Electronic Journal [Internet]. 2015;11(3):161-167. Available in <http://www.redalyc.org/articulo.oa?id=80342807007>
9. Mantilla TSC, Villamizar Ce, Peltzar K. Alcohol consumption, smoking and sociodemographic characteristics in university students. University and Health Journal. 2016; 18(1): 7-15
10. López VJA, Morales CF, Rodríguez AL. Dimensions of happiness and the relationship with tobacco and alcohol consumption in university nursing students. Nure Research. 2017; 14(90). Available in <http://www.nureinvestigacion.es/OJS/index.php/nure/article/view/1175>
11. Polit, DF, Hungler BP. Scientific research in Health Sciences. 6th. Ed. Mexico: Mc Graw - Hill Interamericana; 2000
12. Uribe AJI, Executioner CJL, Zechariah SX. Relationship between risk perception and drug consumption in high school students. Psychology and Health. 2011; 21(1): 47- 55.
13. Mendez RMD, Alonso CMTJ, Alonso CMM, Uribe, AJ. [Master Thesis] Values, risk perception and its relationship with tobacco and alcohol consumption in high school adolescents. Universidad Autónoma de Nuevo León; 2013.

15. De la Fuente Jr., Kershenovich D. Alcoholism as a medical problem. Faculty of Medicine Journal. 1992; 35 (2): 45-51.
16. World Health organization [Internet]. Questionnaire of disorders Identification due to alcohol consumption, 2001 [quoted 21 May 2018]. Available in [http://www.who.int/substance\\_abuse/activities/en/AUDITmanualSpanish.pdf](http://www.who.int/substance_abuse/activities/en/AUDITmanualSpanish.pdf)
17. Secretary of Health [Internet]. Regulation of the General Health Law in the field of health research. Mexico: SS [Quoted May 21, 2018]. Available in <http://www.salud.gob.mx/unidades/cdi/nom/compi/rlgsmis.html>
18. World Medical Assembly [Internet]. Declaration of Helsinki of the World Medical Association, recommendations to guide doctors in biomedical research in people. [Quoted May 22, 2018]. Available in [http://www.conamed.gob.mx/prof\\_salud/pdf/helsinki.pdf](http://www.conamed.gob.mx/prof_salud/pdf/helsinki.pdf)
19. Secretary of Health [Internet]. NOM-012-SSA3-2012, Which establishes the criteria for the execution of research projects for human health [Quoted May 22, 2018]. Available in [http://dof.gob.mx/nota\\_detalle.php?codigo=5284148&fecha=04/01/2013](http://dof.gob.mx/nota_detalle.php?codigo=5284148&fecha=04/01/2013)
20. Fabelo, J, Iglesias S, Cabrera R, Maldonado MT. Tobacco and alcohol consumption among health science students in Cuba and Mexico. MEDICC Review, Selections. 2013; 15(4). Available in <http://medicc.org/mediccreview/pdf.php?lang=en&id=325.esp>
21. Telumbre-Terrero JY, Esparza-Almanza SE, Alonso-Castillo BA, AlonsoCastillo MTJ. Attitudes towards alcohol consumption and alcohol consumption in nursing students. Investig Nurs Image Dev. 2017;19(2):69-81. <http://dx.doi.org/10.11144/Javeriana.ie19-2.ahca>
22. Rodriguez, G., Pineda, B., Velez, Y. Characteristics of tobacco consumption in nursing students of the University of Antioquia, Colombia. Nursing Education and Research Journal. 2010; 28 (3): 370-383.
23. Navarro, D., Espig, H., Medina, V. Tobacco consumption in university students entering health sciences schools. Public Health Journal. 2010; 14 (1): 54-61.
24. Martínez RMR, Coronado HMJ, Bentancourt EMC, Diaz OA, Gallegos MJ. Licit and illicit drugs : Consumption of students in a Faculty of Nursing. Neurological Nursing. 2011; 10(3): 130-134.
25. Montoya V, Cunningham J, Brans B, Strike C, Miotto W. Perceived consumption and use of licit and illicit drugs in university students of Medellín, Colombia. Enfermagem Latam Journal. 2009; 17: 886-892.
26. Telumbre TJY, Esparza ASE, Alonso CBA, Alonso CMTJ. Alcohol and tobacco consumption in nursing students. Rev. Current Nursing in Costa Rica. 2016; 30: 1-16. DOI: <http://dx.doi.org/10.1551/revenf.v0i30.22020>
27. Baptist P, Simich L, Strike C, Brandns B, Giesbrecht N, Khenti A. Simultaneous drug poly consumption in undergraduate students in the health area of a University of El Salvador. Enfermagem Text & Context. 2012; 21: 56-62.
28. De San Jorge CX, Montes MM, Beverido SP, Salas GB. Risk perception and consumption of legal drugs in psychology students of a Mexican university. Research Journal. Univ. Health. Boyacá. 2016; 3:16-33.

ISSN 1695-6141

© COPYRIGHT Servicio de Publicaciones - Universidad de Murcia