

Incidence of alcoholism and smoking in medical students

Incidencia del alcoholismo y el tabaquismo en estudiantes de medicina

Jairo J. Gómez-Tejeda^{1,*}, Odalis Tamayo-Velázquez^{1,a,&}, Ronny Diéguez-Guach^{1,%}, Aida E. Iparraguirre-Tamayo^{1,#}, Cheilan Y. Batista-Velázquez^{1,+}

Abstract

Introduction: alcohol and smoking are legal drugs most consumed in the world. Many young people have their first contact with these substances between the ages of 12 and 17. **Objective:** to describe the incidence of alcoholism and smoking in medical students of a Municipal University Center. Holguín-Cuba. **Method:** is and performed an observational, descriptive, cross - sectional study, whose universe consisted of 73 students, selected through an intentional non - probabilistic sampling, which gave their perpetration reported being worked with the whole. **Result:** the predominant age was 21 to 23 years and females accounted for the majority of the sample (48). El 87.6 % and 80.8 % consume alcoholic beverages and cigarettes respectively; the consumption varies from low to medium, predominantly consumption in group 37.5% and 49.1%. The knowledge about the effect of the alcohol (OR: 1.01 p = 0.0002) and smoking (OR 7.7 p = 0.01). The presence of stress was related to alcohol consumption (OR: 4.46 CI: 1.01-18.8 p = 0.03) and smoking (OR: 9.79 CI: 2.61-36.7 p = 0.0001). **Conclusions:** the consumption of alcohol and cigarettes predominated in low frequency, being more common the ingestion of alcoholic beverages than the habit of smoking and the consumption in groups over the individual. Knowing about the harmful effects of these substances and the presence of stress increased the consumption of alcoholic beverages and cigarettes.

Keyword: alcoholism, smoking, stress, students.

Resumen

Introducción: el alcohol y el tabaco son las drogas legales más consumidas en el mundo. Muchos jóvenes tienen su primer contacto con estas sustancias entre los 12 y los 17 años. **Objetivo:** describir la incidencia del alcoholismo y el tabaquismo en los estudiantes de medicina de un Centro Universitario Municipal. Holguín-Cuba. **Método:** se realizó un estudio observacional, descriptivo, de corte transversal, cuyo universo estuvo conformado por los 73 estudiantes, seleccionados a través de un muestreo no probabilístico intencional, que brindaron su cometimiento informado trabajándose con la totalidad. **Resultado:** la edad predominante fue de 21 a 23 años y el sexo femenino representó la mayoría de la muestra (48). El 87,6 % y el 80,8 % consume bebidas alcohólicas y tabaco respectivamente; el consumo varía de bajo a medio, con predominio del consumo en grupo con 37,5 % y 49,1 %. El conocimiento sobre el efecto del alcoholismo (OR: 1,01 p=0,0002) y el tabaquismo (OR: 7,7 p=0,01). La presencia de estrés se relacionó el consumo de alcohol (OR: 4,46 IC: 1,01-18,8 p=0,03) y tabaquismo (OR: 9,79 IC: 2,61-36,7 p=0,0001). **Conclusiones:** predominó el consumo de alcohol y tabaco en frecuencia baja, siendo más común la ingestión de bebidas alcohólicas que el hábito de fumar y el consumo en grupo sobre el individual. El tener conocimiento sobre los efectos nocivos de estas sustancias y la presencia de estrés aumentaron el consumo de bebidas alcohólicas y tabaco.

Palabras clave: alcoholismo, tabaquismo, estrés, estudiantes.

¹Universidad de Ciencias Médicas de Holguín, Cuba

^{*}First Degree Specialist in Internal Medicine. Assistant teacher

ORCID:

<https://orcid.org/0000-0002-4767-7479>

<https://orcid.org/0000-0001-6936-5460>

<https://orcid.org/0000-0002-2965-0774>

<https://orcid.org/0000-0002-1422-5484>

<https://orcid.org/0000-0002-5717-4058>

Corresponding author:

Jairo J. Gómez Tejeda

Postal Address: Universidad de Ciencias Médicas de Holguín, Cuba.

Email: jairogtd@nauta.cu

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Introducción

Addiction is a chronic and recurrent disease of the brain caused by drug use, which is characterized by a pathological search for reward and/or relief through the use of a substance or other behaviors, leading to an inability to control the behavior, difficulty in permanent abstinence, imperious desire for consumption, diminished recognition of significant problems caused by the behavior itself and in interpersonal relationships as well as a dysfunctional emotional response. (1,2)

The presence of alcohol and tobacco addiction has been considered a cause for concern in the health system, in medical students, due to the high incidence and consequences it brings with it.

Tobacco and alcohol are the psychoactive substances with the highest prevalence and social significance worldwide, representing a public health problem, due to the consequences and risks they cause to health. (2)

In most Latin American countries, the use of tobacco and alcoholic beverages is part of everyday life, as a social and cultural act consolidated within social customs, where medical students are no exception. In addition, there is a tolerance for risky alcohol consumption, especially when the abuse is linked to party and fun situations. (1)

According to world statistics, alcohol consumption causes 4% of deaths, approximately 2.5 million deaths per year, a figure that exceeds that of AIDS, tuberculosis or violence, according to a report by the World Health Organization (WHO). (3,4)

On the other hand, according to the WHO, the prevalence of smoking worldwide is around 30% and constitutes the cause of mortality of almost 6 million people per year, warning that if current trends are not reversed, by 2030 about 10 million people will die worldwide from diseases related to tobacco consumption, 7 million in developed countries, which will make smoking the leading cause of death in the world. (5,6,7)

Cuba, like the rest of the countries in the Latin American region, shows a high alcohol consumption, according to a report of the Pan American Health Organization (PAHO)/WHO 2015, it was estimated a total alcohol consumption per capita in the adult population of 8.8 and 1.6 liters of pure alcohol as annual average by men and women respectively and figures of about 70% of the Cuban population linked to consumption are pointed out. (4,5)

Cuba is also one of the countries with the highest consumption of cigarettes in America, increasing this habit from adolescence and among women, so a gradual increase of this disease is expected in the coming years. The prevalence of smoking is 36.8% on the island and 39.5% in the capital, only surpassed by the Isle of Youth and Santiago de Cuba. (5,6)

Currently, people begin to drink at increasingly younger ages, and in approximately one third of this population group, the consumption of psychoactive substances begins at 13 years of age. This is due to the presence of a culture of permissibility regarding the consumption of these substances, some of which have been historically accepted (liquor and cigarettes) as a means of socialization in the context of festivities and celebrations. (8)

The consumption of alcohol and tobacco in the university stage has serious repercussions on health, due to the various negative effects that these substances produce, for example, psychological, physical or social damage, and produces, for the most part, poor academic performance and poor interpersonal relationships. Within these groups, college students have a high rate of tobacco and alcohol use, which often begins in adolescence and strengthens in college. (6,8)

Due to being a vulnerable group to consume these substances because of the stressors, nutrition and social pressure to which they are subjected, they are an important group of concern that despite the preventive efforts made in this regard, the negative impact of this addiction is still significant.

The objective of this study was: to describe the incidence of alcoholism and smoking in medical students of a Municipal University Center. Holguin-Cuba.

Method

An observational, descriptive, cross-sectional, descriptive research was carried out with the objective of describing the incidence of alcoholism and smoking among medical students of the Gibara Municipal Teaching Center from May to November 2020.

Universe and sample

The universe was made up of the 73 students that make up the enrollment of the center, selected through a non-probabilistic intentional sampling, who provided their informed consent working with the totality of the universe.

The information was collected after the interview, which was carried out with the objective of obtaining all the necessary information for the study. The variables studied were: age, sex, consumption of alcoholic beverages, smoking, frequency of consumption of alcoholic beverages and cigarettes, predominant form of consumption of alcoholic beverages, knowledge about the harmful effect of alcohol and smoking, stress.

For the stress variable, the Stress Vulnerability Test (8) was applied: It allows assessing the degree of vulnerability to stress or established stress, and identifying the aspects linked to the individual's lifestyle and social support, which may have an impact on vulnerability.

Information processing

After collecting the information, it was digitized for further processing. The information obtained was stored in a database that was created using the Microsoft Excel package. To measure the variables under study, as corresponds to the qualitative variables, absolute and relative percentage frequencies were used. The information collected was stored in a database, and was processed by using the statistical package Epiinfo 7.1.2, 2x2 contingency tables were performed, the Chi-square X² statistic was used by the Mantel-Haenszel method, through these results were considered significant if $p < 0.05$ and the Odds Ratio (OR) was calculated to know the magnitude of association.

Ethical considerations

In order to carry out the present study, approval was requested from the Medical Ethics Committee and Scientific Council of the "José Martí Pérez" Polyclinic of Gibara, due to the fact that the University Center is located in its health area, taking into account the ethical principles established in the Declaration of Helsinki. In addition, written informed consent was requested to each patient prior to the realization of the study. During the study, the bioethical principles of Autonomy, Beneficence, Non-maleficence and Justice were taken into account.

Results

Table 1 shows the distribution of patients according to age and sex, where it can be seen that the predominant sex was female.

Table 1: Distribution of patients according to age and sex. Gibara Municipal University Center. From May to November 2020

Age	Sex		Total	%
	Male	Female		
18-20	5	12	17	23,2
21-23	12	17	29	39,8
23 or more	9	18	27	37
Total	26	48	73	100

Table 2: Distribution of patients according to smoking and alcohol consumption

Smoking	Consumption of alcoholic beverages		Total	%	OR
	Yes	No			
Yes	51	8	59	80,8	0,49
No	13	1	14	19,2	
Total	64(87,6 %)	9(12,3 %)	73	100	

Table 2 shows that 51 consume alcoholic beverages but smoke. With a significance level of 5%, we can affirm that the consumption of alcoholic beverages is associated with smoking.

Of the patients who consumed alcoholic beverages, the low frequency group predominated, with 35 patients, while high frequency drinkers were in the minority, with 8 patients. Patients who consume predominantly in groups predominated with 39 patients (61 %).

Of the patients who consumed cigarettes, 78 % (46/59 patients) consumed when they were in groups and at a low frequency with 29 patients.

Table 4 shows that the groups that knew about the harmful effects of alcohol and smoking on the body predominated. Alcoholism (OR: 1.01 p=0.0002) and smoking (OR: 7.7 p=0.01) increased the risk of consuming these drugs.

Table 3: Distribution of patients consuming alcoholic beverages according to frequency and predominant form of consumption of alcoholic beverages and smoking

Frequency of consumption	Predominant form of consumption							
	Consumption of alcoholic beverages				Smoking			
	Individual		In Group		Individual		In Group	
	No	%	No	%	No	%	No	%
High	5	7,8	3	4,7	7	11,8	3	5
Moderate	9	14,1	12	18,8	1	1,7	14	23,7
Low	11	17,1	24	37,5	5	8,5	29	49,1
Total	25	39	39	61	13	22	46	78

Alcohol Consumption (n=64) Tobacco consumption (n=59)

Table 4: Distribution of patients according to knowledge about the harmful effect of alcohol and consumption of alcoholic beverages

Alcoholism						
Knowledge about the harmful effects of alcohol	Alcoholic beverage consumption		Total	%	OR	P
	Yes	No				
Yes	57	8	65	89	1,01	0,0002
No	7	1	8	11		
Smoking						
Knowledge about the harmful effect of smoking	Smoking		Total	%	OR	P
	Yes	No				
Yes	57	11	68	93,2	7,7	0,01
No	2	3	5	6,8		

The presence of stress was related to alcohol consumption (OR: 4.46 CI: 1.01-18.8 p=0.03) and smoking (OR: 9.79 CI: 2.61-36.7 p=0.0001) in medical students.

Discussion

In this stage of major personal changes, one of the most alarming health risk behaviors is drug use and, among them, the legal ones: alcohol and tobacco. Currently, alcohol and tobacco consumption are a

Table 5: Distribution of patients according to the relationship of stress with alcohol consumption and smoking

Alcohol consumption and smoking	Stress Yes	No	Total	OR	IC 95%	p
Alcohol consumption						
Yes	50	14	64	4,46	1,05-18,8	0,03
No	4	5	9			
Smoking						
Yes	47	12	59	9,79	2,61-36,7	0,00001
No	4	10	14			

serious global problem because it is considered a drug capable of devastating human beings physically, mentally, socially and spiritually. (7)

Alcohol consumption is a health problem that affects the population in general, but the younger generations need to be especially careful, not only because it is the most consumed drug in the world, but also because it encourages the consumption of other addictive substances. In general, health science students, although they are more exposed to information on the risk factors associated with health, are one of the most vulnerable groups and consumers of these substances. (8,10)

In the research of Góngora Gómez et al (2), the predominant sex was male, coinciding with the study, while the age group with the highest frequency was 16 to 17 years old, disagreeing with the results of this study, which occurs because the authors only evaluated from the 3rd year of the career onwards.

In the research conducted by Lazo Herrera et al (9) in adolescents from a basic secondary school, male patients predominated, together with the study by Linares Cánovas et al (14) where the male sex predominated (64.8 %), which disagrees with the present research.

This difference is due to the fact that the same age groups were not studied and the diversity was not the same, mainly associated with the difference in enrollment between the centers where the study was carried out, which does not imply a significant association.

Most of the sample in the study consumed alcoholic beverages and/or tobacco, coinciding with Linares Cánovas et al (10) that 84.6% of the sample presented alcohol and tobacco consumption; and Rebutillo Pilar et al (11) and De la Rosa Santana et al (12) reported that 61.8% and 68% respectively, of the patients studied acknowledged having consumed alcohol.

These findings are due to the fact that the study was conducted in a group with greater awareness of risk at early ages, although it is known that, as the years

have passed, alcohol consumption has become popular among young university students to such an extent that today it is consumed equally by both sexes and the age of onset of consumption is usually the same, in addition stressors are part of this process.

This research coincided with Góngora Gómez et al (2) who found in their study that 85.6% of the patients who consume with low frequency, while those who consume with high frequency are the minority, and more than 95% consume in groups.

As for the form of consumption, it is associated with the fact that, at this stage of life, the main reason for drinking alcoholic beverages are parties and outings with friends, social pressure, easy accessibility to substances, which results in a group environment, in which adolescents generally consume in the company of others.

There is no awareness of the amount of alcohol that is tolerated by the body and, many times, more is consumed than can be tolerated, mainly due to peer pressure, in which adolescents are not able to stop consumption due to fear of rejection.

De la Rosa Santana et al (12) reported in their study that 62.7% of their sample had low knowledge about the health effects of alcohol. In addition, Pérez Barl et al (13) reflected in their study that 68% of their sample had inadequate knowledge about the consequences of drugs such as tobacco, and that 98.2% considered smoking as the most used substance, and had little knowledge of its consequences, and none of them evaluated the stress factor in their results.

The previous reports disagree with those obtained in the present study, because patients who have knowledge are more likely to consume alcoholic beverages than those who do not have knowledge. In this same sense, the presence of stress increased the possibility of consuming alcohol and tobacco in medical students, which leads to the need to evaluate whether the medical career increases the risk of consuming these substances.

Conclusions

Alcohol and tobacco consumption predominated in low frequency, being more common the ingestion of alcoholic beverages than smoking and group consumption over individual consumption. Knowledge of the harmful effects of these substances and the presence of stress increased the consumption of alcoholic beverages and tobacco.

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Authors' contribution

JJGT: Research conception and design, data acquisition, data analysis and interpretation. Interpretation of the data. Critical review of the intellectual content. Final approval of the submitted version.

OTV: The conception and design of the research. Draft of the article. Critical revision of the intellectual content. Final approval of the version to be presented.

RADG: Data acquisition, analysis and interpretation of the data. Draft of the article. Final approval of the submitted version.

AEIP: Analysis and interpretation of data. Critical revision of the intellectual content. Final approval of the submitted version.

CYBV: data acquisition. Critical review of intellectual content. Final approval of the version presented.

Conflict of interests

The authors declare no conflict of interest.

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