Prevalence and opinions related to tobacco consuption by university students

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Tobacco use represents one of the major public health problems; the aim of the study was to determine the prevalence and opinions of tobacco consumption by university population; a descriptive cross-sectional design was used. The results showed a prevalence of use in the last year of 24.3 of participants, consumption once in a lifetime was 46.3%. Regarding dissenting opinions (cons) about tobacco use it is found that a high percentage of participants presents obstacles to the use of tobacco; items that reached the highest levels were in relation to opinions on health, such as tobacco causing cancer and directly affecting the lungs and heart.

Descriptors: Prevalence / university Students, Beliefs, tobacco.

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Prevalência e crenças com relação ao consumo de cigarro pela população universitária

O consumo de cigarro representa um dos principais problemas de saúde pública. O objetivo do estudo foi determinar a prevalência e as crenças sobre o consumo do cigarro pela população universitária. Para tanto, empregou-se um desenho descritivo transversal. Os resultados mostraram uma prevalência de consumo no último ano de 24.3% dos participantes (alguma vez na vida o consumo foi de 46.3%). Com relação às crenças desfavoráveis (contras) ao consumo de cigarro, observa-se que uma alta porcentagem dos participantes apresentou barreiras ao consumo de cigarro. Os itens que alcançaram os índices mais altos foram aqueles relacionados com as crenças na área da saúde, como o entendimento de que o cigarro provoca câncer e afeta diretamente os pulmões e o coração.

Descritores: Prevalência / universidade, crenças, tabaco.

Prevalencia y creencias en relación al consumo de tabaco en población universitaria

El consumo de tabaco representa uno de los principales problemas de salud pública, el objetivo del estudio fue determinar la prevalencia y las creencias sobre el consumo del tabaco en la población universitaria, para ello se empleó un diseño descriptivo transversal. Los resultados mostraron una prevalencia de consumo en el ultimo año de 24.3% de los participantes (el consumo alguna vez en la vida fue de 46.3%). En relación a las creencias desfavorables (contras) para el consumo de tabaco, se observa que un alto porcentaje de los participantes presentó barreras para el consumo de tabaco, los ítems que más altos índices alcanzaron fueron respecto a la creencias de la salud como que el tabaco provoca cáncer y afecta directamente a los pulmones y al corazón.

Descriptores: Prevalencia/universitarios, creencias, tabaco.

Introduction

The phenomenon of consumption, dependence and abuse of legal and illegal psychoactive substances shows a worrying development. Its main indicators show an increase in the prevalence of consumption, as well as a decrease in age the person started using, especially for introductory drugs like tobacco and alcohol[1]. Tobacco use represents one of the major public health problems; their high frequency, identified in numerous studies, among young people is especially worrisome because it is likely that consumption will create a significant increase of health problems in the coming years. Despite the consequences, the prevalence of tobacco use is increasing, so that the negative impact will be greater in the future[2].

According to the World Health Organization (WHO), it is estimated that currently 4.9 million people die each year as a result of tobacco use, and it is projected that by 2020 this number will rise to 10 million deaths[3]. It is recognized that if someone start smoking at an early age it increases the odds of presenting tolerance and addiction to tobacco in short time because the body is resistant to the effects of nicotine, moreover, those who start smoking at a very early stage has more difficult to quit smoking in adulthood due to addiction to nicotine[4].

The time of start of sporadic consumption is established at very early ages, most of them have contact with tobacco between 11 and 13 years old and is also consolidating at an early age, so that upon reaching age 18 a significant percentage of future smokers have habitually consumed cigars. At this vital step occurs the consolidation of personality, and with it the lifestyles more or less healthy[5].

Studies show that the first year of university, particularly the first few weeks, is often the time to establish their own identity and find new friends. Enter the wider environment of the university, which is no longer limited by the members of a group of peers that marked the years of secondary education. It is relevant to note that the transition to college life is confronted with a great deal of unstructured time and few explicit rules that govern their conduct[6-7].

With regard to tobacco use, tobacco intake is measured by the quantity of cigarettes consumed by the person in a day and how often he/she consume cigarettes in a given period. Tobacco is the product of *Nicotiana tabacum* plant whose active ingredient is nicotine, it has different presentations and it is used to smoke, chew or aspirate, and the most common way to consume tobacco is smoking it[8].

Regarding the prevalence of smoking in university students many studies have been conducted in Latin America. Among nursing students from a private university located in the city of Bogota, Colombia, a prevalence of 24%[9] was found. Another study in the University of Costa Rica among nursing students found that tobacco was the second most used drug by study participants[10].

Mexico data obtained in 2008 by the National Survey of Addictions determined among the 12-65 years population that 27 million Mexicans used tobacco at least once in their life, of which 14.9% are teenagers with age of start of consumption of 13.7 years. The two most important reasons for starting smoking were curiosity, 60%, and living with smokers, 29.8% men and 26.9% women. The active smokers are those who have smoked in their lifetime and during the past year, those who started consuming at 13.7 years; with an average consumption of five cigarettes per day[1].

As for the opinions identified by university students related to tobacco use, the concepts of pros and cons are defined by The Health Belief Model (Becker, 1974) of stages of multi-component model McMOS, health opinions are represented by benefits (pros) and obstacles (cons) to undertake specific actions to prevent health threats related to drug use[11]. An important personal factor is the opinions on tobacco and health/disease that the person has to perform or not such conduct. In the United States there is evidence that campaigns on the effects of tobacco on health have an impact on young people and different studies have shown that one third of young people presented as a reason to reject the cigarettes the fear of the consequences to their health, along with losing attractive and physical performance[12].

On the other hand, opinions on the possibility of reducing the threat of identification are depending on the effectiveness of specific measures to reduce the threats and the conviction that the benefits of steps outweigh the costs (identifying benefits and obstacles). In Cali, Colombia it was found about the consumption of alcohol, tobacco and other drugs: young people have a high or very high presence of favorable opinions about it (69.8 %). Although also a high percentage of young people are in disagreement or totally disagree with the following negative opinions: "Consuming one or two cigarettes a day is not harmful to health"[9].

Another study of Chilean university students showed that the ones of area of health identify benefits in consuming tobacco as relaxation, pleasure and social acceptance by their peers[13].

In Mexico was documented that believing that cigarettes contain substances that promote addiction decreases the risk of young people start using tobacco[14]. In another study on Mexican adolescents it was found that the opinions of adolescents that tobacco has addictive properties becomes a cognitive protective factor against intention to smoke[15]. In the author's experience of study within the university as a teacher it was found that tobacco use is highest each day among university students, however this has not been identified. Studies on opinions associated with tobacco use among university students are scarce, even documented the importance of the cognitive and motivational aspects at the beginning or maintenance of tobacco use. It is thought

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that the reviews that university student identifies himself are motivating tobacco consumption. The exposed background and poor knowledge about tobacco use that present the young university students from CD. of H. Matamoros Tamaulipas, Mexico arises the interest to research on this problem in order to determine the prevalence of tobacco use and to identify the opinions they possess related to tobacco consumption.

Objectives

Determine the prevalence of tobacco use according to gender, marital status, graduation, occupation and type of work among the university population of CD. of H. Matamoros, Tamaulipas, Mexico.

Identify opinions (pros and cons) of tobacco consumption according to gender and occupation among the university population.

Material and Methods

This study was descriptive, cross-sectional and correlational[16].

The population of the study were 392 first year students from three disciplines of health (Bachelor in Nursing, Psychology and Health Safety & Environment) from a public university of CD. of Matamoros, Tamaulipas, Mexico. The sample consisted of 218 students.

For selection of subjects in study were considered the following inclusion criteria: men and women who were registered in the first year at the time of the interview, students who were in regular classes within the unit and inclusion criteria; all students who were working at hospitals, schools or businesses during the interview and those who did not wish to participate; no loss of participants were identified.

It was used a document of personal data (CDP) which included age, sex, marital status, discipline, occupation and type of work, a questionnaire that measures the prevalence of tobacco consumption (CCT) which contains six reactive measuring the tobacco consumption ever in your life, age of start of consumption, tobacco use in the last year, tobacco use in past 30 days, tobacco use in the last week and number of cigarettes in a typical day.

The survey of opinions about the effects of tobacco (CCET) consists of 17 questions with four answer choices: strongly disagree (1), disagree (2), agree (3) and strongly agree (4). The scores for the subscale of health damage (cons) comprises 9 questions with a minimum score of 9 and a maximum score of 36, meaning that the highest score greater the contrary identifications on tobacco consumption. In subscale of benefits (pros) comprises 8 questions, the minimum score is 8 and the maximum 32 points, where the highest score obtained greater the benefits identified in tobacco consumption. This instrument achieved a Cronbach's alpha coefficient of .76 for Calleja, 1998[17]. The questionnaire was considered a valid and reliable instrument to apply it in the university population of Mexico.

Initially given the approval to conduct this research by the research and ethics committee of the Multidisciplinary Academic Unit of Matamoros UAT, it was asked the authorization of the directors of the educational institution for data collection, this study clung to the Regulation of the General Law of Health in research for health (secretary of Health (SSA), 1987)[18]. Later the university students were invited to participate in the study, when was explained the purpose of the research and then asked to sign the informed consent where occurred his approval for the study, the application of the instruments was collectively in classroom respecting the class schedule, the instruments were self-administered and anonymous. When finalizing their participation, they were deposited in a box with access and guarded by study author.

Data were analyzed using SPSS (Statistical Package for Social Sciences) version 15.0 for Windows it was used descriptive and inferential statistics for the study variables, the analysis on the distribution of the data was performed by the Kolmogorov-Smirnov test and comparisons by the Mann-Whitney test, taking into account a confidence interval of 95%; the significance level was set at 5% for all analyzes.

Results

According to sociodemographic characteristics of the population in this study it was found an average age of 20 years (DE = 3.4) and 80%

of participants were <20 years, 69.7% were women, in relation to marital status 90.8% were unmarried at the time of interview. The discipline of nursing had the greater participation, 47.2%, while psychology had 36.7%; 74.3% were unemployed, 25.7% had been studying and working and 13.8% had been working at an office.

It was found that 24.3% consumed tobacco in the last year, followed by 18.8% for use in the last month, however the consumption sometime in life was high (46.3%). At the time of interview 53.7% of participants identified not having used tobacco in their life.

Table 1 - Tobacco use in the last year and last month related to sociodemographic variables

Variable	In the last year		In the last month	
	f	%	f	%
Sex				
Female	26	17.1	19	12.5
Male	27	40.9	22	33.3
Marital status				
With partner	3	15.0	2	10.0
Without partner	50	25.3	39	19.7
Graduation				
Nursing	29	28.2	24	23.3
Psychology	15	18.8	12	15.0
Safety, health and environment	9	25.7	5	14.3
Occupation				
Studies	36	22.2	27	16.7
Studies and works	17	30.4	14	25.0
Type of work				
Office	8	26.7	7	23.3
Service	7	33.3	6	28.6
Health area	2	40.0	1	20.0

Source: CCCT

n=218

In Table 1 it was observed the prevalence of tobacco use in the last year and last month related to sex; in both cases males showed higher percentages than females with regard to marital status, tobacco consumption was higher for those who were unmarried at the time of interview.

Nursing Degree was the course that showed higher consumption of tobacco, those who had been studying and working have identified consume tobacco at greater proportion than those who had been studying.

Table 2 shows favorable opinions (pros) and it was possible to check up the majority of those who believe not agree regarding the benefits in favor of tobacco consumption which could be indicating minimal risk factor present in participants for consumption tobacco. The studied individuals do not agree that smoking reduces sleep and bring inspiration in studies. At subscale of pros (benefits) it was achieved Cronbach's Alpha of .89 which was considered an acceptable internal consistency[16].

Table 3 shows the unfavorable opinions (cons) for tobacco consumption and it is noted that the high percentage of participants presented obstacles to tobacco use, items that reached the highest levels were in relation to the views of health, as the tobacco causes cancer and directly affects the lungs and heart. This subscale achieved Cronbach's Alpha of .93 which considers an acceptable internal consistency[16].

For the pros and cons variables in relation to gender, the Kolmogorov-Smirnov test shows that there is no normality in these variables, so to meet the objectives of the study was used the nonparametric statistics.

In Table 4 it can be seen that a significant difference between the pros index in relation to sex variable (U = 3436, p <.001) and cons showed no significant difference (U = 4472, p <.172).

Table 5 shows that for the pros (U = 3436, p <.615) and cons (U = 4472, p <.862) variables in relation to the occupation there was no significant difference for these variables.

Table 2 - Pros and benefits on the effects of tobacco consumption

Pros (Benefit)	Strongly disagree		Disagreement		Agreement		Strongly agreement	
	f	%	f	%	f	%	f	%
1. Brings more confidence and safety	151	69.3	47	21.6	12	5.5	8	3.7
2. Brings more quiet	107	49.1	54	24.8	49	22.5	8	3.7
3. Takes away sleep during the studies	141	64.7	55	25.2	17	7.8	5	2.3
4. Brings inspiration during the studies	167	76.6	35	16.1	13	6.0	3	1.4
5. Distract the problems of home and school	29	9.2	9	22.5	8	2.8	2	.5
6. Aids digestion after eating	132	60.6	45	20.6	29	13.3	12	5.5
7. Takes away sleep	13.8	63.3	54	24.8	16	7.3	16	4.6
8. Brings satisfaction and pleasure	136	62.4	40	18.3	26	11.9	6	7.3

Fonte: CCCT

n=218

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Table 3 - Obstacles or cons about the effects of tobacco consumption

Cons (Obstacles)	Strongly disagree		Disagreement		Agreement		Strongly agreement	
	f	%	f	%	f	%	f	%
1. Vitiates	8	3.7	3	1.4	56	25.7	151	69.3
2. Causes cancer	5	2.3	4	1.8	20	9.2	189	86.7
3. Cause loss of physical condition	5	.3	3	.4	6	1.1	64	5,2
4. Causes coughing	6	2.8	13	6.0	41	18.8	158	72.5
5. Cause lung diseases	5	2.3	4	1.8	32	14.7	177	81.2
6. Affects the heart	6	2.8	5	2.3	40	18.3	167	76.6
7. Decreases the activity of neurons	7	3.2	8	3.7	46	21.1	157	72.0
8. Irritates the throat	6	2.8	15	6.9	47	21.6	150	68.8
9. Cause bad breath	10	4.6	7	3.2	35	16.1	166	76.1

Source: CCCT

n=218

Table 4 - Mann-Whitney U test for pros, cons and sex index

	n	X	U	p value
Pros				
Female	152	99.1	3436	.001
Male	66	133.4		
Cons				
Female	152	21.42	4472	.172
Male	66	28.57		

Source: CCCT

n=218

Table 5 - Mann-Whitney U test for pros, cons and occupation index

	n	X	U	p value
Pros				
Studies	162	108.27	3436	.615
Studies and works	56	113.07		
Cons				
Studies	162	109.91	4472	.862
Studies and works	56	108.32		

Source: CCCT

n=218

Discussion

The present study has determined in 218 university students the prevalence and opinions in relation to tobacco consumption. The sample consisted of students from three disciplines of a public university of CD. of H. Matamoros Tamaulipas, Mexico.

The results showed a mean age of 20 years fact that relates to the average age of entry into higher education in Mexico that are 18 years old. In the present study, female sex predominated (69.7%) showing the historical influence in the discipline of nursing when the profession was initially adopted by women, since the percentage of males was most predominantly in the area of Safety, Health and Environment.

The prevalence of smoking sometime during their lives was 46.3% which exceeds the data identified by the National Survey of Addictions in 2008[1], 44.2% of tamaulipeca population between 18 and 65 years old had consumed tobacco, consumption in last year was 24.3% in this study, which coincides with a previous study of Colombian university students which showed a prevalence of tobacco consumption of 24%[9]. 53.7% of respondents (76.9% women and 23.1% men) had never consumed tobacco, a lower rate than reported in Tamaulipas state[1], 55.8% of the population (37.3% of men and 73.7% women) between 18 and 65 years old was found to have not smoked.

Regarding opinions (pros and cons) that showed the university population, favorable opinions (pros) for the consumption of tobacco, in most participants, found to be in disagreement with the benefits of tobacco consumption, which could be indicating minimal risk factor present in participants to tobacco consumption. Respondents disagreed that tobacco use takes away the sleep and that helps inspire to study, these results are very encouraging because they allow us to predict health behavior that people adopt for a positive attitude towards their health reflecting in practice of healthy lifestyles. These data differ from those found in Chilean university students in the area of health[13], they identify benefits to consuming tobacco as relaxation, pleasure and social acceptance by peers; similar results were observed in students of a health college in Colombia[19].

In unfavorable opinions (cons) to tobacco consumption was observed that a high

percentage of participants presented obstacles to tobacco consumption; the items with the highest rates achieved were in relation to the opinions of health as that tobacco causes cancer and affects directly the lungs and heart. Coincidentally, Honduran students identified that tobacco use brings health damage, besides the desire to prevent diseases and avoid the consequences of consuming tobacco[6]. Casually a study with Colombian university students showed that the disease most associated with tobacco use has been lung cancer[19]. Compatibly to that observed in Mexican adolescents where a cognitive protective factor against intention of tobacco use identified in this study was the opinion of adolescents that tobacco has additional properties[15].

Conclusion

This study helped identify the prevalence and opinions regarding smoking among university students of health area. It is concluded that the prevalence of consumption in life is high, but consumption has declined in the last year, however the opinions of university students were not favorable to consider this population vulnerable to tobacco consumption.

The main objective of subjects in the area of health is to prevent diseases by promoting health, role that these professionals develop in the context of prevention and promotion of health. The results of this study are very encouraging given that tobacco use among health professionals constitutes a negative influence on their patients. In community and clinical surroundings, the health professionals are better educated on health issues and is expected to act on the basis of this knowledge. In society and in their community they are expected to be the role models for the rest of the population. And that includes, in general, their behaviors related to health and particularly to tobacco consumption[20].

Supported by these results is recommended to continue with the studies of quantitative design in order to deepen the effect of opinions about tobacco use and develop qualitative design studies to deepen the meaning of tobacco consumption among university population.

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