

Attitudes towards consumption and non-consumption of alcohol among high school students in Mexico

ATITUDE FRENTE AO CONSUMO E NÃO CONSUMO DE ÁLCOOL EM ESTUDANTES DE NÍVEL MÉDIO – MÉXICO

ACTITUD ANTE EL CONSUMO Y NO CONSUMO DE ALCOHOL EN ESTUDIANTES DE PREPARATORIA – MÉXICO

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ABSTRACT

The objective of this study was to identify differences in high school students' attitudes towards the consumption or non-consumption of alcohol using the theory of planned behavior. This was a qualitative, descriptive, cross-sectional study that included a sample of 131 students. We found that 74% of students had consumed alcohol, and 18.3% exhibited a harmful level of consumption. We also found that behavioral beliefs towards consumption were higher among alcohol consumers (mean=29.32, median=27.50) than those who did not consume alcohol. Moreover, positive beliefs towards consumption were higher among alcohol consumers (mean=17.72, median=9.52) than non-consumers, which demonstrates a need for preventative programs to strengthen adolescents' beliefs concerning alcohol as well as protective factors and healthy lifestyles.

DESCRIPTORS

Adolescent
Students
Alcohol drinking
Attitude

RESUMEN

El objetivo del estudio fue identificar diferencias de actitud entre estudiantes de la educación secundaria consumidores y no de alcohol a través de la Teoría de la Conducta Planeada. Estudio descriptivo transversal con abordaje cuantitativo, con una muestra de 131 adolescentes. Se verificó que 74% ya habían consumido alcohol y 18.3% tienen consumo dañino. Se constató que las creencias conductuales hacia el consumo eran más altas en los consumidores de alcohol (\bar{X} =29,32, Mdn=27,50) que en los no consumidores, así con la evaluación de las creencias en sentido positivo son más altas en los consumidores de alcohol (\bar{X} =17,72, Mdn=9,52) que en los no consumidores, haciéndose necesaria la implementación de programas preventivos que fortalezcan las creencias de los adolescentes, así como estimular las estrategias vinculadas con el fortalecimiento de factores protectores y estilos de vida saludables.

DESCRIPTORES

Adolescente
Estudiantes
Consumo de bebidas alcohólicas
Actitud

RESUMO

O objetivo do trabalho foi identificar as diferenças de atitude entre estudantes de nível médio consumidores ou não de álcool, por meio da Teoria da Conduta Planejada. Estudo descritivo transversal com abordagem quantitativa, com uma amostra de 131 adolescentes. Verificou-se que 74% já haviam consumido álcool e 18.3% mantinham consumo nocivo, constatou-se que as crenças comportamentais em relação ao consumo eram mais altas nos consumidores de álcool (\bar{X} =29.32, Mdn=27,50) que nos não consumidores, assim como a avaliação das crenças positivas, igualmente mais altas nos consumidores de álcool (\bar{X} =17,72, Mdn=9,52) que nos não consumidores. Concluiu-se que é necessário a implementação de programas preventivos que fortaleçam as crenças dos adolescentes, assim como estimular estratégias de fortalecimento de fatores protetores e estilos de vida saudáveis.

DESCRITORES

Adolescente
Estudantes
Consumo de bebidas alcoólicas
Atitude

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INTRODUCTION

Alcohol consumption is a worrisome social issue due to the high level of addiction, coupled with the fact that it is the most frequently used psychoactive substance among the general population. This consumption results in multiple consequences and risks for health, such as liver disease, different types of cancer, risky sexual behaviors, accidents and injury. In turn, these issues significantly affect the quality of life of individuals, families, groups and communities; moreover, alcohol consumption is a global phenomenon that involves multiple factors and determinants⁽¹⁻²⁾.

In Mexico, there are approximately 27 million people who ingest large quantities of alcohol on various occasions, with a frequency that varies from less than once per month to daily. The National Addiction Survey has documented that the adolescent population shows an increasing tendency towards risky behavior linked to alcohol consumption, which is due in part to the fact that they begin to consume alcohol before 18 years of age⁽³⁾.

In the state of Nuevo León, there is a daily consumption prevalence of 6.2% among male adolescents who are heavy drinkers and 1.2% among social drinkers, while for female adolescents, the daily prevalence is 2.8% for heavy drinkers and 0.4% for social drinkers⁽³⁾. Adolescents associate alcohol consumption with fun and happiness, but they also see it as a way to avoid confronting their emotional problems. These factors make the abuse of alcohol almost universal because adolescents often believe that it encourages socialization and pleasure⁽⁴⁾.

The adolescent stage is the most vulnerable in regard to acquiring healthy or unhealthy consumption habits because the average age at which individuals begin to consume alcohol is 15.6 years. This consumption occurs despite the introduction of the Official Mexican Policy (NOM 028-SSA-1999), which establishes that any alcohol consumption during adolescence is dangerous and excessive. This behavior is considered dangerous because of the physiological, metabolic and hormonal immaturity that exists between the ages of 11 and 19, which increases the severity of the consequences of alcohol consumption^(3,5).

In addition, alcohol consumption is related to the changes associated with adolescence, including risk-taking behavior, the search for new experiences and sensations, greater socialization and imitation of adult behavior, among others. These conditions may be linked to the acquisition of healthy and unhealthy habits, which most likely will continue to develop during adulthood. At this stage of growth and development, when personal identity is constructed and lifelong habits are acquired, it is vital that contact with toxic substances such as alcohol be completely eliminated^(1,5-6).

The present study focused on the theory of planned behavior (TPB), which is based on the assumption that all human beings generally behave reasonably, basing their actions on available information and understanding the consequences of those actions⁽⁷⁻⁸⁾. TPB theorizes that a person's intent to carry out (or not) a certain behavior is the most important determinant of that action and that intent is determined by basic determinants such as attitude, subjective norms and perceived behavioral control⁽⁷⁻⁸⁾.

The attitude of an individual is a personal trait (and therefore represents an individual determinant) and refers to the position of the individual towards a specific behavior. A given attitude is determined by a set of relevant beliefs concerning the consequences of a given behavior and the emotional value that the individual attributes to the consequences of that behavior, namely, the positive or negative evaluation of that particular behavior⁽⁷⁻⁸⁾.

Subjective norms, also called social influences, are considered to be a collective and social determinant. These refer to the social and cultural context of the individual, as well as the susceptibility of the person towards social pressure to carry out (or not) a particular behavior⁽⁷⁻⁸⁾.

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Perceived behavioral control refers to the perceived level of ease or difficulty to carry out a particular behavior and is related to the experience of carrying out the behavior, as well as the known or predicted difficulties and obstacles. This concept is also referred to as self-efficacy⁽⁷⁻⁸⁾. Intent is the disposition towards a given behavior. When an opportune and adequate moment arises, the intent is translated into action⁽⁷⁻⁸⁾.

The relative importance of attitude towards behavior, subjective norms and perceived behavioral control depends mostly on intent. Attitudes towards behavior transcend social norms in relation to intent; nevertheless, for some behaviors, subjective norms or perceived behavioral controls are more important, whereas in other cases, just one or two factors are necessary to explain intent. Furthermore, in other cases, three factors may be significant determinants, and the relative weight of these factors can vary from person to person or population to population⁽⁷⁻⁸⁾.

In general, it can be said that an individual decides to carry out a behavior when they evaluate it positively, when they experience social pressure or when they believe that the means and opportunity are available to carry it out⁽⁷⁻⁸⁾. For this project, attitude was the only determinant assessed, as there are few studies related to this determinant. This approach was adopted despite the predictive capacity of the theory that was used, which has demonstrated that positive attitudes are related to the intent to consume as well as the actual consumption

of alcohol and that there are strong associations between past and present attitudes towards the intent to become intoxicated⁽⁹⁻¹²⁾.

For this reason, it is important to study in depth the attitudes of adolescents related to alcohol consumption or non-consumption behavior from the perspective of TPB. This study should promote future research on the design of specific prevention and health promotion interventions, and our results will also allow new hypotheses to be generated, which will contribute significantly to knowledge on the phenomenon of addiction.

The objective of this study was to identify differences in attitude towards consumption between high school students who consume alcohol and those who do not using TPB.

METHOD

Type of study

This was a descriptive, cross-sectional study with an explicative and predictive focus. We assessed the data according to theoretical criteria and the sociodemographic characteristics of the participants in a specific timeframe.

Ethical procedure

This project was approved and accepted by the Ethics Committee of the Autonomous University of Nuevo León, México under registration number FAEN-D-810.

Population and place of study

The population of interest was composed of 863 adolescent high school students. The sample (n=131) was obtained using the statistical software n'Query Advisor Version 4.0®. In particular, the study population was designed according to the logistic regression model, with a level of significance at 0.05, alternative correlation with a conservative focus of 0.20, a no-response rate of 5% and a resolving power of 90%.

The selection criteria for this study consisted of adolescents between the ages of 14 and 18 years who were enrolled in high school, voluntarily agreed to participate and were available at the time of data collection.

Data collection was conducted in a public high school located in an urban area of the state of Nuevo León, Mexico; urban areas are considered those with 2,500 to 99,999 inhabitants⁽³⁾. The chosen area was located 135 km² to the southeast of the city of Monterrey, Mexico in region 135, which is referred to as Llanura Costera del Golfo. This region has an area of 2,445.20 km², is located in the south-center area of Nuevo León, México and contains 78,669 habitants in 20,935 households. Due to its economic activity, its

population and its location, this is the second most important urban area in the state⁽¹³⁻¹⁴⁾.

Data collection and instruments

Data collection was performed by the author of the study as well as two collaborating researchers. Authorization was received from the high school before the project began; once this was granted, the 2012 list of registered students was obtained. Then, students were contacted at the high school using a written invitation to participate, which included the hours of informational meetings for the study. The meetings were carried out in a classroom, with the authorization of the principal. Students were informed of the importance of their participation in the study as well as the study's objectives, procedures and approximate times for data collection. At the same time, informed consent and agreement forms were handed out and explained.

Prior to the implementation of the data collection instruments, informed consent and agreement was obtained from the parents or legal guardians of the participants, as well as the participants themselves. Then, data collection was carried out using previously designed instruments, and the participants were reminded to not leave any question unanswered. Students were assured of the anonymity and confidentiality of their responses.

For data collection, the following instruments were administered: a Certificate of Personal Data and Prevalence of Consumption of Alcohol (CPDPCA), the AUDIT (Alcohol Use Disorders Identification Test) and the Attitude Scale from the Attitude, Subjective Norms, Perceived Behavioral Control and Intent to Consume Alcohol Questionnaire (ASNPBCICA).

The AUDIT is used to detect the excessive consumption of alcohol during the previous 12 months and identify whether the participant demonstrates risky consumption or alcohol dependence. This instrument is composed of 10 questions, each of which corresponds to 0 to 4 points. The total points are interpreted in the following way: 0 to 3, no risk; 4 to 7, possible risky consumption; and 8 or more, elevated risk of dependence⁽¹⁵⁾.

The attitude scale is part of the ASNPBCICA, which was elaborated by Rodríguez, Díaz, Gracia, Guerrero and Gómez⁽¹⁶⁾; this questionnaire was adapted for alcohol consumption by López-Cisneros and Villar in 2011. The attitude scale was evaluated together with the beliefs that the adolescents had about the consequences of alcohol consumption and the emotional value (positive or negative) that the adolescents attributed to those consequences. This scale consists of 41 items (two sub scales: behavioral beliefs and evaluation of beliefs); of these, 20 items measure the dimensions of behavioral beliefs, with a minimum of 20 and a maximum of 100 points, and 21 items measure the evaluation of beliefs

with a minimum of 21 and a maximum of 105 points. These points are transformed using an index from 0 to 100, with a higher index value indicating a stronger attitude towards alcohol consumption.

To adapt the original instrument from the context of illicit drugs to the context of alcohol consumption, it was necessary to validate the content using a panel of experts. Five researchers participated in this panel, and they performed a conceptual analysis of TPB and its empirical application to the consumption of alcohol. The results of the expert-led analysis were described in conceptual matrices and evaluated for similarities and differences between the opinions of the different experts to produce a final scale that was adequate for measuring alcohol consumption.

Subsequently, a pilot test was carried out with 70 students with the objective of assessing the ease of understanding and clarity of the scale, as well as determining the time needed to complete the instrument and the reliability of the scales. The results showed that the scale was clear and understandable, with values of 0.78 (behavioral beliefs) to 0.96 (evaluation of beliefs); the attitude scale obtained a Cronbach's alpha of 0.94. Using the total sample, an analysis of the main components with orthogonal rotation was performed to interpret the total explained variance and the confirmatory analysis for maximum reliability from the correlation matrix. The level of significance for the contrast tests was 0.5. The goal of this analysis was to assure that the factors that appear in the scale correspond to each of the dimensions used by the original author.

RESULTS

Table 1 shows that of the 131 adolescents interviewed, 58 (44.3%) were male and 73 (55.3%) were female. Most of the subjects were 16 years of age (51.1%). An average of 94.7 were students, and most of the subjects (88.5%) were living with both parents. The average age at which they began to consume alcohol was 13.74 years (SD=2.18). The main type of alcoholic drink they reported to consume was prepared drinks (53.1%), followed by beer (33.3%).

For the measurement of alcohol consumption prevalence, 74.0% (CI 95% 66-82) reported that they had consumed alcoholic beverages once in their lifetimes, 61.8% (CI 95% 53-70) reported consumption in the previous year, 36.6% (CI 95% 28-45) in the last month and 20.6% (CI 95% 14-28) in the last 7 days (Table 2).

The types of alcohol consumption among the high school students, according to the AUDIT, included sensible or low-risk consumption (26.7%) and daily consumption (16.8%) (Table 3).

Table 4 shows the attitude towards consumption among students who consume and do not consume alcohol, according to behavioral beliefs and the evaluation of those beliefs. The results indicated that behavioral beliefs about consumption were higher among consumers (mean=29.32, median=27.50) than non-consumers. Likewise, the positive evaluation of beliefs was higher among alcohol consumers (mean=17.72, median=9.52) than non-consumers.

Table 1 – Sociodemographic characteristics and categorical variables – México, 2012

Variable	F	%
Sex		
Male	58	44.3
Female	73	55.7
Age		
15	57	43.5
16	67	51.1
18	7	5.4
Semester		
First	75	57.3
Third	56	42.7
Occupation		
Student	124	94.7
Student and Worker	7	5.3
People they live with		
Both parents	116	88.5
Mother only	15	11.5

Source: CPDPCA n=131

Table 2 - Prevalence of alcohol consumption – Mexico, 2012

Type of Prevalence	F	%	CI 95%	
			Lower Limit	Upper Limit
Once in lifetime (global)	97	74.0	66	82
In the last year (lapsed)	81	61.8	53	70
In the last month (recent)	48	36.6	28	45
In the last 7 days (current)	27	20.6	14	28

Source: CPDPCA n=131

Table 3 – Tipo de consumo de alcohol de acuerdo al AUDIT – México, 2012

Type of Consumption	F	%
Sensible	35	26.7
Dependent	22	16.8
Harmful	24	18.3
No consumption	50	38.2

Source: AUDIT n=131

Table 4 – Attitude towards consumption of alcohol among consumers and non-consumers – Mexico, 2012

Attitude		n	X	Median	SD	Mann-Whitney U	P value
Beliefs	Consumers	81	29.32	27.50	23.44	1149.000	.000
Behaviors	Non-consumers	50	14.55	4.37	22.57		
Evaluation of	Consumers	81	17.72	9.52	21.08	1226.000	.000
Beliefs	Non-consumers	50	8.42	.00	15.96		

Source: CDPPCA, CANSCCPICA, AUDIT n=131

DISCUSSION

The current adolescent sample demonstrated similarities, with respect to the sociodemographic data, to research carried out in other countries, particularly with respect to gender in Portugal⁽⁴⁾, the age of study participants in Nicaragua⁽¹⁷⁾, the consumption of alcohol once in a lifetime in Brazil⁽¹⁸⁾ and residence with both parents in Bolivia⁽¹⁹⁾.

Using TPB, it could be shown that adolescents, despite recognizing that alcohol is unhealthy, detrimental, bad and unsafe, have a positive attitude towards consumption, viewing it as a pleasant and desirable behavior⁽²⁰⁾. This shows that attitude is the determinant that best explains the intent to use and consume alcoholic beverages⁽²¹⁾.

The data obtained in this study confirm the ideas put forth in TPB, showing that adolescents can have a positive attitude towards consumption if their expectations of the benefits are higher than their expectations of the costs. Nevertheless, this decision can be altered by beliefs related to social norms. These beliefs are also established by the perception of the possible beliefs that others may have about adolescents' behavior and the motivation they might have to satisfy the expectations of others. Namely, adolescents may feel a need to use drugs such as alcohol if they believe that their friends, classmates or families support consumption or if there is consumption among adults in general⁽²²⁾.

Attitudes towards alcohol experimentation are determined by the beliefs that adolescents have and the positive or negative evaluations of those beliefs. Such evaluation is the emotional component of attitude and is determined by the motivation and strength of the intention to use alcohol. This differential belief formation process contributes to the fact that each belief has a different weight according to each adolescent and the object of the attitude. These attitudes, together with their evaluation, will allow the prediction of behavioral intent, as will the knowledge of specific beliefs

that others may have. These factors influence the intent to carry out or not carry out a behavior in general (maintenance of health), in relation to the motivation to please⁽²²⁾.

Other studies performed with the TPB focus have demonstrated that, among Mexican adolescents, primarily in men, there is a greater impact of social pressure on attitude due to the cultural importance of friends' and classmates' opinions compared to English-speaking communities with a greater individualistic spirit for decision-making regarding alcohol. The same studies have shown that the attitude of adolescents towards alcohol consumption will be favorable when their risk perception is lower, when their beliefs are more distorted and when there is a greater disposition to use alcohol⁽²³⁻²⁵⁾.

Nevertheless, in this study, the predictive capacity of the attitude determinant of the TPB was confirmed. Moreover, it was shown that this resource contributes to predicting the beliefs that adolescents have with respect to the consequences that come from alcohol consumption, as well as the value that they attribute to these consequences. Therefore, these results can serve as a basis for establishing specific strategies focused on promoting positive attitudes towards the non-consumption of alcoholic beverages.

CONCLUSION

We can conclude that adolescent high school students in urban areas who consume alcohol present a positive attitude towards that consumption, which contributes to the continued use of alcohol.

Therefore, it is recommended that preventive programs focus on strengthening the beliefs of adolescents related to the delayed use of alcohol, development of sensible behavior patterns and evaluation of alcohol use. These interventions should be closely linked to the context in which they are carried out. It is also important to promote strategies that are linked to strengthening protective factors and healthy lifestyles.

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Acknowledgements

We would like to thank the National Secretary of Drug Policies / SENAD of the Ministry of Justice in Brazil, the Ribeirão Preto School of Nursing at the University of São Paulo and the Collaborating Center of the World Health Organization for Research Development, as well as the Del Carmen Autonomous University, the Zone 4 General Hospital, which is part of the Mexican Institute of Social Security, and the Faculty of Nursing at the Autonomous University of Nuevo León.