

Expectations of alcohol consumption and alcohol consumption in young people in rural and urban areas

Expectativas del consumo de alcohol y consumo de alcohol en jóvenes de áreas rural y urbana

Expectativas de consumo de álcool e consumo de álcool em jovens de áreas rurais e urbanas

Annel González Vázquez*^{ID}; Karla Selene López García**^{ID}; María Magdalena Alonso Castillo***^{ID};

Francisco Rafael Guzmán Facundo****^{ID}; Javier Álvarez Bermúdez*****^{ID}; Arodi Tizoc Márquez*****^{ID}

Abstract

Background: The consumption of alcohol is among the main health problems worldwide due to its physical, psychological and social consequences, it has been identified that the expectations of alcohol consumption are a variable that can be related to the alcohol consumption.

Objective: To identify the expectations towards alcohol consumption, to determine the relationship between expectations and alcohol consumption among young people in rural and urban areas.

Methodology: The design of the study was descriptive correlational, comparative; random sampling. The sample consisted of 169 young people from the urban area and 133 young people from the rural area of the state of Nuevo León.

Results: The expectations towards the consumption of alcohol in the subscale of disinhibition ($U = 9573.00$; $p = 0,023$) and in the subscale of increase of sexuality ($U = 9724.00$; $p = 0,041$) it was different within the to area, it is characterized by greater medians and medians among young people in rural areas; the expectations of alcohol consumption reported positive and significant correlation with the harmful consumption of alcohol in rural youth ($r_s = 0,435$; $p < 0,001$) and young people in urban areas ($r_s = 0,290$; $p < 0,001$).

Conclusion: Due to the problem that consolidates the alcohol consumption in young people, it is important to carry out more research that allows the design of effective strategies to attend to specific populations.

Keywords: ethanol; alcoholism; concept formation; adolescent

Resumen

Marcos contextual: El consumo de alcohol se encuentra entre los principales problemas de salud a nivel mundial debido a sus consecuencias físicas, psicológicas y sociales. Se ha identificado que las expectativas del consumo de alcohol es una variable que puede influir en el consumo de alcohol.

Objetivo: Identificar las expectativas hacia el consumo de alcohol, determinar la relación que existe entre las expectativas y el consumo de alcohol en los jóvenes del área rural y urbana.

Metodología: El diseño del estudio fue descriptivo correlacional, comparativo; muestreo aleatorio. La muestra estuvo conformada por 169 jóvenes del área urbana y 133 jóvenes del área rural del estado de Nuevo León.

Resultados: Las expectativas hacia el consumo de alcohol en la subescala de desinhibición ($U = 9573,00$; $p = 0,023$) y en la subescala de incremento de la sexualidad ($U = 9724,00$; $p = 0,041$) fueron diferentes. Respecto al área se destacan mayores medias y medianas en los jóvenes del área rural; las expectativas del consumo de alcohol reportaron correlación positiva y significativa con el consumo dañino de alcohol en los jóvenes del área rural ($r_s = 0,435$, $p < 0,001$) y en los jóvenes del área urbana ($r_s = 0,290$, $p < 0,001$).

Conclusión: Debido a la problemática que consolida el consumo de alcohol en los jóvenes, es importante realizar más investigaciones que permitan el diseño de estrategias efectivas para atender a las poblaciones específicas.

Palabras clave: etanol; alcoholismo; formación de concepto; adolescente

*Ph.D., Nursing Sciences, Autonomous University of Nuevo León, 64460, Monterrey, México [annel_10_7@hotmail.com]. <https://orcid.org/0000-0003-4976-0345>. Contribution to the article: research principal, data collection, statistical evaluation and article writing. Address for correspondence: Polux 428, Monterrey, 66417, México.

**Ph.D., Nursing, Autonomous University of Nuevo León, Faculty of Nursing, 64460, Monterrey, México [kslg2001@hotmail.com]. <https://orcid.org/0000-0002-9462-7140>. Contribution to the article: bibliographic research, statistical evaluation and writing of the article.

***Ph.D., Philosophy in Psychology, Autonomous University of Nuevo León, Faculty of Nursing, 64460, Monterrey, México [magdalena_alonso@hotmail.com]. <https://orcid.org/0000-0002-7197-8116>. Contribution to the article: discussion of the results.

****Ph.D., Nursing, Autonomous University of Nuevo León, Faculty of Nursing, 64460, Monterrey, México [pako2001@hotmail.com]. <https://orcid.org/0000-0002-6951-8989>. Contribution to the article: Statistical evaluation and writing of the article.

*****Ph.D., Social Psychology, Autonomous University of Nuevo León, Faculty of Psychology, 64460, Monterrey, México. [jabin@hotmail.com]. <https://orcid.org/0000-0002-2186-9608>. Contribution to the article: participated in the investigation and discussion.

*****Master's Nursing Sciences, Autonomous University of Baja California, Faculty of Nursing, 21100, Mexicali, México [aitzoc@uabc.edu.mx]. <https://orcid.org/0000-0001-8175-1268>. Contribution to the article: participated in the research, presentation of results and writing of the article.

Resumo

Enquadramento: O consumo de álcool está entre os principais problemas de saúde em todo o mundo devido às suas consequências físicas, psicológicas e sociais, identificou-se que as expectativas de consumo de álcool é uma variável que pode influenciar o consumo de álcool.

Objetivo: Identificar as expectativas em relação ao consumo de álcool, para determinar a relação entre expectativas e consumo de álcool entre jovens de áreas rurais e urbanas.

Metodologia: O desenho do estudo foi descriptivo correlacional, comparativo; tendo sido realizada uma amostragem aleatória, a qual foi constituída por 169 jovens da área urbana e 133 jovens da zona rural do estado de Nuevo Leon.

Resultados: Expectativas em relação álcool subescala desinibição ($U = 9573,00$; $p = 0,023$) e aumento da subescala sexualidade ($U = 9724,00$; $p = 0,041$), foram diferentes a respeito a área é caracterizada por maiores medianas e medianas entre os jovens nas áreas rurais; as expectativas do consumo de álcool reportam uma correlação positiva e significativa com o consumo nocivo de álcool entre os jovens em áreas rurais ($r_s = 0,435$, $p < 0,001$) e entre jovens da área urbana ($r_s = 0,290$, $p < 0,001$).

Conclusão: Devido ao problema que consolida o consumo de álcool em jovens, é importante realizar mais pesquisas que possibilitem o desenho de estratégias efetivas para atender populações específicas.

Palavras-chave: etanol; alcoolismo; formação de conceito; adolescente

Received for publication: 23.07.18

Accepted for publication: 26.11.18

Introduction

In recent decades, alcohol consumption has become a growing global health problem due to its physical, psychological, and social consequences. It also represents a significant factor in the overall rate of morbidity (Organización Mundial de la Salud [OMS], 2015).

In Mexico it has been reported that 77.3% of young people in urbanized population has consumed alcohol at some time in their life, 53.3% reported consumption in the last year, 39.9% consumption in the last month and 3% daily alcohol consumption. In addition, 14 years old has been reported as the age of onset of alcohol consumption, which starts as a low-frequency pattern, but in high quantity per occasion of consumption (Instituto Nacional de Psiquiatría Ramon de la Fuente Muñiz, Instituto Nacional de Salud Pública, Secretaría de Salud, Encuesta Nacional de Consumo de Drogas Alcohol y Tabaco, 2016).

Regarding the state of Nuevo León, 54.7% of men and 51.3% of women between 15 and 19 years old have consumed alcohol at some time in their lives (Gutierrez et al., 2012).

Due to the high prevalence of alcohol consumption in young people, it is estimated that approximately 14 thousand deaths in children under 19 years old occur each year associated with alcohol consumption (OMS, 2015).

It has been identified that the expectations of alcohol consumption are a variable that can be associated with alcohol consumption by young people (Cortés et al., 2011; Trujillo, Martínez-González, & Vargas, 2013). It is considered that the construction of the expectations begins with a series of general and undifferentiated beliefs about the effects of alcohol and tends to increase with the experience with alcohol, the social exposure, and the age. Young people can identify alcohol as positive or negative depending on the perception of the effects of alcohol (Mora-Ríos, Natera, & Juárez, 2005). Therefore, if young people identified positive expectations about the effects of alcohol consumption, they are more likely to engage in alcohol consumption behaviour (Castaño, Del Castillo, & Marzo, 2014).

However, there is evidence that relates that the expectations of alcohol consumption among

young people can be different according to their gender, the role of life, culture, and place of residence. In addition, the study of expectations towards alcohol consumption has been conducted mainly in young students and urbanized population (Castaño et al., 2014; Trujillo et al., 2013), therefore the interest of this study are young people living or residing in rural areas and/or urban areas that were not studying, considering that if they are in such a situation, they interact with different groups, which can influence the construction of expectations towards the pattern of alcohol consumption and these expectations relate to the consumption or no consumption (López-Caneda et al., 2014).

The purpose was to identify the relationship between expectations and alcohol consumption among young people in rural and urban areas. It is expected that the results of this research submit information regarding expectations between rural and urban areas, which in the future may support to sustain interventions in specific populations.

Four specific objectives have been set: to determine the type of alcohol consumption by rural and urban areas; to determine expectations by rural and urban areas; to determine expectations by sex; to identify the relationship of the expectations and the consumption of alcohol by rural and urban areas.

Background

The consumption of alcohol is considered an unhealthy behaviour, which in recent years has increased the attention of medical staff, due to the various consequences on the health of individuals (OMS, 2015).

One way to present the consumption of alcohol is by the prevalence of alcohol consumption. The Ministry of Health of Mexico outlines measures defined as the number of consumers of alcohol in relation to the total size of the population at a given point in time. The overall prevalence is defined as the number of people who have consumed alcohol at some time in their lives; the lapsic prevalence is defined as the number of people who have consumed alcohol in the past year; the current prevalence is defined as the number of people who have

consumed alcohol in the last month, and finally the instant prevalence is defined as the number of people who have consumed alcohol in the past 7 days (Secretaría de Salud, 2009).

Criteria for classifying alcohol consumption according to gender have been determined, due to the physical conditions and metabolic diseases of men and women. The metabolism of alcohol is carried out from the enzymes alcohol dehydrogenase (ADH) and cytochrome P450IIE1 (CYP2E1), which at the gastric level metabolize alcohol before it reaches the bloodstream. Women have lower activity of the enzyme ADH, lower amount of fluids and greater amount of lipids; unlike men, who have a higher activity of the enzyme ADH and enzyme CYP2E1, which results in a higher concentration of alcohol in the blood of women when they consume the same amount of alcohol as men (Porter, 2012).

The classification of alcohol consumption in Mexico is established on the basis of the amount and frequency of intake, and sensible, dependent, and harmful consumption are considered (Fuente & Kershenovich, 1992). Sensible consumption is when the woman ingests two standard drinks and the man four standard drinks no more than three times a week. The dependent consumption is when four to nine standard drinks are consumed per occasion in men and three to five standard drinks per occasion in women, in addition to the intense desire to consume alcohol, difficulty in controlling consumption and morning consumption.

Harmful consumption is when on a typical day men drink ten or more standard drinks, women drink six or more standard drinks, as well as when there is guilt after alcohol consumption, gaps in thinking, consumption-related injuries, or other people are concerned about alcohol consumption (Fuente & Kershenovich, 1992).

Expectations about alcohol consumption are defined as a set of beliefs about the positive and negative effects of alcohol consumption, to which greater attention has been attributed, since they may explain alcohol consumption behaviour in young people (Mora-Ríos et al., 2005). According to Brown, Goldman, Inn, and Anderson (1980) the more positive the expectations on the effects of alcohol consumption, the greater the probability that there is alcohol consumption (Trujillo et al., 2013).

It is to highlight that Milena et al. (2010) pointed out that the desire to consume alcohol is presented in terms of the perception of the stimuli related to the consumption and the cognitive processes of the person. Thus, the expectations related to alcohol consumption are complex networks of beliefs developed during childhood from learning experiences and exposure to statements that are archived over the long term and can determine behaviour. It has also been identified that the expectations towards the consumption can be positive or negative depending on the perception of the desirable effects for the individual (Castaño et al., 2014).

Research question

What is the relationship between alcohol use and alcohol consumption in young people in rural and urban areas?

Methodology

The design of the study was descriptive, correlational, and comparative. The population consisted of 45,560 young people living in the urban area of the municipality of San Nicolás de los Garza, Nuevo León, Mexico. The resident population in the rural area was formed by 1,367 young people living in three locations in Nuevo León: Ejido de Ciénega de Flores (325); Palmitos Cadereyta (948); y Dulces Nombres (94).

The sampling was random, since inside each area, blocks were selected and, by means of the clock hand method, the invitation to the young people to participate in the study was initiated. The sample size was determined for a multiple logistic regression model, considering a design effect of 1.10, a r^2 of the covariant of 0.20, a significance level of 0.05, a power of 90%, a rate of 20%, so that the sample consisted of 169 young people of the urban area and 133 young people in rural areas of the state of Nuevo León.

Instruments

In order to measure the variables that make up this study, a personal data identification card was used, which was designed by the authors

of the study (*ad hoc*). The Alcohol Use Disorders Identification Test was used [AUDIT], validated in Mexican population by Fuente and Kershenovich (1992), getting a sensitivity of 80% and specificity of 89%; the instrument identifies the sensible, dependent and harmful alcohol consumption. The AUDIT is composed of 10 reagents. The 1 to 3 reagents examine the quantity and frequency of alcohol consumption and determine if the person is drinking more than the sensible limit. The 4, 5 and 6 reagents examine the possibility of dependence to alcohol consumption, the 7, 8, 9 and 10 reagents discussed the possibility of a harmful consumption.

The questionnaire of the AUDIT has a minimum value of 0 and a maximum of 40 points. The classification of the type of consumption is obtained by adding the reagents. If the cut-off points are 1 to 3 it is considered a sensible consumption, 4 to 7 dependent consumption and 8 to 40 is considered harmful consumption. The AUDIT has been used in studies carried out in university youth and has reported a Cronbach alpha from 0.84 to 0.90 (Londoño & Valencia, 2010).

The Alcohol Expectations Questionnaire was used to measure expectations of alcohol consumption (Brown et al., 1980), which measures beliefs about the effects of alcohol consumption in social and emotional behaviour. The questionnaire consists of 51 questions divided into eight subscales: subscale 1) Facilitator of interaction; subscale 2) Verbal expressiveness; subscale 3) Disinhibition; subscale 4) Increase of sexuality; subscale 5) Reduction of psychological tension; subscale 6) Reduction of physical tension; subscale 7) Aggressiveness and feelings of power; and subscale 8) Psychophysiological changes.

The response option is dichotomous, *true* or *false*. According to the person's belief, it is assigned a value of 0 and 1, the minimum score is 0 and a maximum of 51 points, where higher scores present higher positive expectations towards alcohol consumption. The Alcohol Expectations Questionnaire has been used in the Mexican population, in university students, and has reported an acceptable Cronbach Alpha of $\alpha = 0.93$ (Castaño et al., 2014).

Data analysis

IBM SPSS Statistics, version 20.0 for Windows, was used for data analysis. Descriptive

statistics were used first. The normality of the study variables was calculated through the Kolmogorov-Smirnov test, and it was decided to use the nonparametric statistics. In order to answer objective one, which indicated the type of alcohol consumption by rural and urban area, the Chi-squared test was used; to answer objective two, which indicated the expectations by rural and urban area, and objective three, which indicated the expectations by sex, the Mann-Whitney *U* test was used. Finally, the Spearman correlation coefficient was used to respond to objective four, which sought to identify the relationship between expectations and alcohol consumption by rural and urban areas.

Ethical-legal considerations

Before data collection began, the study was evaluated and authorized by the Research Ethics Committee and by the Research Committee of the Faculty of Nursing of the Autonomous University of Nuevo León.

The study adhered to the general health law on health research (Secretaría de Salud, 1987). The objective of the research was explained to the participants, and they were told that the information they would provide would be anonymous and confidential. Participants' authorization was requested through informed consent, which was signed.

Results

Three hundred and two young people participated, 133 residents in the rural area and 169 residents in the urban area. With respect to the participants residing in rural areas, 78.9% had between 18 and 22 years old, 55.6% is male, the majority (74.4%) referred be unmarried, 43.6% had completed secondary school, 67.7% had non-formal work such as workers in elementary activities (cleaning, agriculture) or working in a trade. With regard to the urban area, 48.5% had between 18 and 22 years old, 52.1% of the sample is female. In terms of marital status, the majority of youth (72.2%) referred to be unmarried, 50.9% has studied high school and 75.7% reported having a non-formal work as auxiliary of administrative activities and independent workers (Table 1).

Table 1
Distribution of participants according to socio-demographic characteristics of rural and urban areas

Characteristics	Rural n = 133		Urban n = 169	
	f	%	f	%
Age				
18 to 22 years old	105	78.9	82	48.5
23 to 26 years old	18	13.5	65	38.5
27 to 30 years old	10	7.5	22	13.0
Sex				
Feminine	59	44.4	88	52.1
Masculine	74	55.6	81	47.9
Marital status				
Single	99	74.4	122	72.2
Married	16	12.0	29	17.2
Free union	16	12.0	14	8.3
Separated	2	1.6	4	2.4
Educational Level				
Incomplete primary education	1	0.8	1	0.6
Complete primary education	2	1.5	-	-
Incomplete second. education	19	14.3	2	1.2
Complete secondary education	58	43.6	21	12.4
Incomplete high school	40	30.0	50	29.6
Complete high school	12	9.0	89	50.9
Technical	1	0.8	9	5.3

Note. f = frequency; % = percentage. Source: personal data identification card (ad hoc questionnaire).

The age of onset of alcohol consumption showed no statistically significant difference according to the area of residence ($U = 5797,50$; $p = 0.001$). Young people in rural areas began to consume alcohol with 15 years old ($SD = 2.6$) and young people in urban areas with 17 years old ($SD = 2.3$). With respect to objective one, it is reported that 22.9% of young people in the rural area presented sensible consumption, 21.9% dependent use and 55.2% harmful consumption. With regard to the young people in the urban area 44.5% present sensible consumption, 28.8% dependent consumption and 26.7% harmful consumption. The type of alcohol consumption showed no significant differences by sex ($\chi^2 = 13.39$; $p < 0.001$). Women were more sensible

consumption (45.2%), followed by (27.4%) dependent and harmful (27.4%). Men were more harmful consumption (48.5%), followed by (26.9%) sensible and dependent (24.6%). With regard to the objective number two, Table 2 reports the results of the Mann-Whitney U test for the score of the expectations of alcohol consumption. Among young people in rural and urban areas, the results show that there is a significant difference between expectations towards the consumption in the subscale of disinhibition ($U = 9573.00$; $p = 0.023$) and in the subscale of increase of sexuality ($U = 9724.00$; $p = 0.041$). Higher means and medians in rural young people are highlighted. Figure 1 shows that expectations are higher in rural areas.

Table 2

Contrast of means and medians of the score of expectations of the consumption of alcohol by rural and urban area by Mann–Whitney U test

Variable	Rural			Urban			U	p
	n	\bar{X}	Mdn	n	\bar{X}	Mdn		
Expectations	133	17.24	17.00	169	14.73	11.00	9821.00	0.060
Subscales Facilitator of interaction	133	5.58	5.00	169	4.87	4.00	10133.50	0.140
Verbal expressiveness	133	2.04	2.00	169	1.67	2.00	10157.50	0.140
Disinhibition	133	1.97	2.00	169	1.54	1.00	9573.00	0.023
Increase of sexuality	133	2.72	3.00	169	2.36	2.00	9724.00	0.041
Reduction of psychological tension	133	1.40	1.00	169	1.30	1.00	10562.50	0.351
Reduction of physical tension	133	1.36	1.00	169	1.17	1.00	10001.00	0.088
Aggressiveness and feelings of power	133	1.53	1.00	169	1.34	1.00	10356.00	0.226
Psychophysiological changes	133	0.60	0.00	169	0.46	0.00	9996.00	0.056

Note. n = sample; \bar{X} = mean; Mdn = median; U = Mann Whitney U; p = significance. Source: Questionnaire of Expectations towards Alcohol adapted from “Expectations of reinforcement from alcohol their domain and relation to drinking patterns” by Brown, Goldman, Inn, & Anderson (1980), *Journal of Consulting and Clinical Psychology*, 48(4), 419-426.

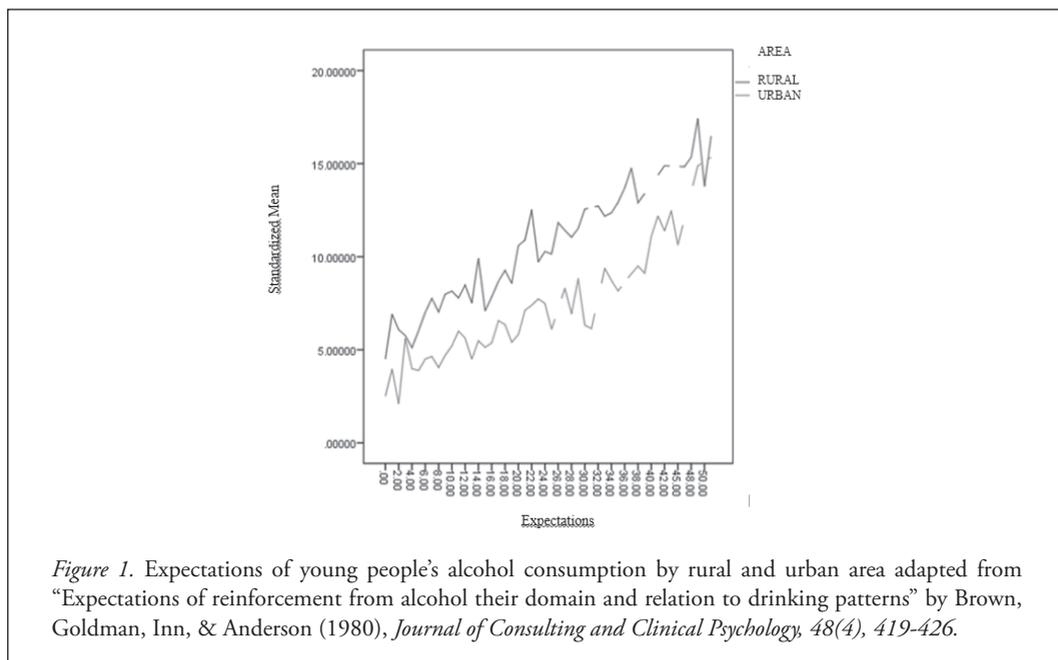


Figure 1. Expectations of young people’s alcohol consumption by rural and urban area adapted from “Expectations of reinforcement from alcohol their domain and relation to drinking patterns” by Brown, Goldman, Inn, & Anderson (1980), *Journal of Consulting and Clinical Psychology*, 48(4), 419-426.

In order to respond to the objective three, Table 3 is presented, which reports the results of the Mann-Whitney U test for the score of the

expectations of the consumption of alcohol by sex. The results show that there is a significant difference between expectations of consumption

in the subscale of aggression and feelings of power ($U = 9633.50$; $p = 0.017$), higher means in women stand out ($\bar{X} = 1.24$; $Mdn = 1.0$) compared with men ($\bar{X} = 1.60$; $Mdn = 2.0$). Significant differences

in the subscale of psychophysiological changes were also reported ($U = 9937.00$; $p = 0.026$), higher means in women stand out ($\bar{X} = 0.42$) compared with men ($\bar{X} = 0.62$).

Table 3

Contrast of means and medians of the score of expectations of the consumption of alcohol by sex by the Mann–Whitney U test

Variable	Feminine		Masculine		U	p
	\bar{X}	Mdn	\bar{X}	Mdn		
Facilitator of interaction	4.84	4,0	5.51	5,0	10748.00	0.393
Verbal expressiveness	1.82	2,0	1.83	2,0	11230.00	0.826
Disinhibition	1.57	1,0	1.88	1,0	10533.50	0.243
Increase of sexuality	2.34	2,0	2.69	3,0	10340.50	0.160
Reduction of psychological tension	1.23	1,0	1.45	1,0	10442.50	0.193
Reduction of physical tension	1.25	1,0	1.26	1,0	11343.00	0.946
Aggressiveness and feelings of power	1.24	1,0	1.60	2,0	9633.50	0.017
Psychophysiological changes	0.42	0,0	0.62	0,0	9937.00	0.026

Note. n = sample; \bar{X} = mean; Mdn = median; U = Mann Whitney U; p = significance. Source: Questionnaire of Expectations towards Alcohol adapted from “Expectations of reinforcement from alcohol their domain and relation to drinking patterns” by Brown, Goldman, Inn, & Anderson (1980), *Journal of Consulting and Clinical Psychology*, 48(4), 419-426.

In order to respond to objective four, in Table 4 the expectations and alcohol consumption in young people in rural areas are reported. It was identified that the expectations towards alcohol consumption are positively and significantly correlated with the number of drinks consumed on a typical day ($r_s = 0.350$; $p < 0.001$), with the sum of AUDIT ($r_s = 0.478$; $p < 0.001$) and with the harmful consumption ($r_s = 0.435$; $p < 0,001$),

which means that the higher the expectations towards alcohol consumption, the higher the number of drinks consumed on a typical day and the higher the consumption of alcohol in a harmful manner. Likewise, expectations were negatively correlated with sensible alcohol consumption ($r_s = - 0.396$; $p = 0.001$), which means that the lower the expectations for alcohol consumption, the higher the sensible consumption of alcohol.

Table 4

Spearman correlation coefficient of the variables of the study of young people in rural areas

	1	2	3	4	5	6	7
1. Age	1						
2. Age of onset of alcohol consumption	0.371** (0.001)	1					
3. Number of drinks consumed	-0.152 (0.103)	-0.205* (0.027)	1				
4. Expectations for alcohol consumption	0.086 (0.325)	-0.105 (0.262)	0.350** (0.001)	1			
5. AUDIT (alcohol consumption)	-0.030 (0.762)	-0.204* (0.037)	0.456** (0.001)	0.478** (0.001)	1		

6. Sensible consumption	0,107 (0,279)	0.073 (0.462)	-0.490** (0.001)	-0.396** (0.001)	-0.729** (0.001)	1	
7. Dependent consumption	-0,121 (0,221)	0.133 (0.177)	-0.041 (0.679)	-0.121 (0.218)	-0.298** (0.002)	-0.288** (0.003)	1
8. Harmful consumption	0,010 (0,917)	-0.172 (0.080)	0.448** (0.001)	0.435** (0.001)	0.863** (0.001)	-0.605** (0.001)	-0.588** (0.001)

Note. $n = 133$ rural youth; * = the correlation is significant at the level of 0.05; ** = the correlation is significant at the level of 0.01; *parenthesis* = value of p . Source: Personal Data Identification Card (*ad hoc* questionnaire), AUDIT questionnaire adapted from “El alcoholismo como problema médico” by De la Fuente & Kershenobich (1992), *Revista de la Facultad de Medicina UNAM*, 35(2), 45-51; and Questionnaire of Expectations towards Alcohol adapted from “Expectations of reinforcement from alcohol their domain and relation to drinking patterns” by Brown, Goldman, Inn, & Anderson (1980), *Journal of Consulting and Clinical Psychology*, 48(4), 419-426.

For urban youth, Table 5 reports that expectations of alcohol consumption correlated positively and significantly with the number of drinks consumed on a typical day ($r_s = 0.184$; $p = 0.022$), with the AUDIT score ($r_s = 0.370$); $p < 0.001$) and with harmful consumption ($r_s = 0.290$; $p < 0.001$), which means that the higher the expectations towards alcohol con-

sumption, the higher the number of drinks consumed on a typical day and the higher the harmful consumption of alcohol. In addition, a significant negative correlation was found between expectations about alcohol consumption and sensible alcohol consumption ($r_s = -0.358$; $p < 0.001$), meaning that the lower the expectations, the higher the sensible consumption of alcohol.

Table 5

Spearman correlation coefficient of the variables of the study of young people in the urban area

Variables	1	2	3	4	5	6	7
1. Age	1						
2. Age of onset of alcohol consumption	0.280** (0.001)	1					
3. Number of drinks consumed	0.083 (0.309)	-0.063 (0.436)	1				
4. Expectations for alcohol consumption	0.087 (0.262)	-0.147 (0.069)	0.184* (0.022)	1			
5. AUDIT (alcohol consumption)	-0.096 (0.247)	-0.321** (0.001)	0.532** (0.001)	0.370** (0.001)	1		
6. Sensible consumption indicator	0.136 (0.102)	0.322** (0.001)	-0.445** (0.001)	-0.358** (0.001)	-0.866** (0.001)	1	
7. Dependent consumption indicator	-0.064 (0.441)	-0.164* (0.048)	0.074 (0.376)	0.109 (0.189)	0.197* (0.017)	-0.569** (0.001)	1
8. Harmful consumption indicator	-0.087 (0.298)	-0.194* (0.019)	0.425** (0.001)	0.290** (0.001)	0.771** (0.001)	-0.541** (0.001)	-0.384** (0.001)

Note. $n = 169$ urban youth; * = Correlation is significant at the level of 0.05; ** = Correlation is significant at the level of 0.01; *parenthesis* = value of p . Source: Personal data identification card (*ad hoc* questionnaire), AUDIT questionnaire adapted from “El alcoholismo como problema médico” by De la Fuente & Kershenobich (1992), *Revista de la Facultad de Medicina UNAM*, 35(2), 45-51; and Questionnaire of Expectations towards Alcohol adapted from “Expectations of reinforcement from alcohol their domain and relation to drinking patterns” by Brown, Goldman, Inn, & Anderson (1980), *Journal of Consulting and Clinical Psychology*, 48(4), 419-426.

Discussion

This study included young people living in rural and urban areas of Nuevo León, and it identi-

fied the expectations of alcohol consumption and alcohol consumption in these groups. It was identified that the age of initiation of alcohol consumption in the rural area is 15 years old

while in urban youth is 17 years old, data that differ from those reported in the National Survey of Consumption of Drugs, Alcohol, and Tobacco, which indicates that young people start consuming alcohol before 14 years old (Instituto Nacional de Psiquiatría Ramon de la Fuente Muñiz, Instituto Nacional de Salud Pública, Secretaría de Salud, Encuesta Nacional de Consumo de Drogas, Alcohol y Tabaco, 2016). On the other hand, it is important to point out that the alcohol commercialization laws prohibit the sale of alcohol before the age of 18, which evidences the flexibility to obtain alcoholic beverages in these rural localities in minors.

In relation to the type of alcohol consumption (sensible, dependent and harmful) presented by young people, it was found that in the rural area harmful alcohol consumption is higher. These data are different to those reported by Espejo et al. (2017), which points out that young people in rural areas have more sensible consumption. In the urban population, more sensible consumption was reported. The data are congruent to what was reported by Gámez-Medina, Guzmán-Facundo, Ahumada-Cortez, Alonso-Castillo, and Gherardi-Donato (2017) in their study carried out in young people of the urbanized area. These results show that young people in rural areas report higher harmful consumption, which increases the probability of dependence on alcohol consumption in that population. Probably these findings are explained by the fact that young people in rural areas see alcohol consumption as normalized, which may be related to cultural practices and traditions that are presented in the context with a higher presence of harmful consumption behaviour in rural areas than in urban areas.

As for alcohol consumption by sex, more harmful consumption was reported in men and more sensible consumption in women. These data are similar to what was reported in studies conducted in the Mexican population (Márquez. et al., 2016; Gámez-Medina et al., 2017), and may be due to the fact that women have the effect of the gender role, in the sense that sociocultural women are assigned a protective role, which implies that they consider consuming alcohol infrequently and in small quantities.

Expectations of alcohol consumption in terms of disinhibition and increased sexuality are higher in rural youth. However, when compared

to recent studies, the results are different from the present study. In this sense, authors Obradors-Rial, Ariza, and Muntaner (2014) found higher expectations for alcohol consumption among urban youth. This could be explained because the expectations towards alcohol consumption of young people in rural areas can be oriented to obtain some benefit such as relaxing, forgetting worries and diminishing tension, together with the expression of their feelings, while in the urban area their expectations are oriented to the mere fact of wanting to have fun and socialize.

The expectations by sex presented higher expectations of aggression, feelings of power and psychophysiological changes in women than men. These findings are similar to those reported by Londoño, Torres, y Contreras (2004), who reported that men have lower expectations of aggression, feelings of power and psychophysiological changes. This could be due to the fact that women are aware of the effects that alcohol may have and they do not only consider the consumption as a way to socialize.

As for the correlation between expectations and alcohol consumption, relations with harmful consumption were reported in both rural and urban areas. However, the value of the correlation is higher for the rural area. Probably this can be explained by the fact that in rural youth the expectations of alcohol consumption are centered on the benefits obtained from ingestion (reduction of tiredness, stress, among others), given that it has been identified that the work carried out in this area is more physically demanding, in addition to the fact that their expectations play a very important role in the individual's decision to consume or not to consume (Castaño et al., 2014; Mora-Ríos et al., 2005).

Conclusion

Regarding the results of this research and the problems that consolidate alcohol consumption among young people, it is important to conduct more research that allows for the design of effective strategies to address specific populations, such as the rural and urban context, and to prevent alcohol consumption.

It was identified that expectations towards al-

cohol consumption are a variable that can be a starting factor towards alcohol consumption behaviour. Therefore it would be important to carry out some intervention where this variable is retaken in order to modify expectations and induce young people to healthy behaviours and avoid alcohol. Since it was identified that alcohol consumption behaviour begins at age 15 in rural youth and 17 in urban youth, it is important to educate about the risks that consolidate alcohol consumption in adolescents.

References

- Brown, S. A., Goldman, M. S., Inn, A., & Anderson, L. R. (1980). Expectations of reinforcement from alcohol their domain and relation to drinking patterns. *Journal of Consulting and Clinical Psychology, 48*(4), 419-426.
- Castañó, P. D., Del Castillo, D. J., & Marzo, C. D. (2014). Consumo de alcohol y factores intervinientes en estudiantes universitarios. *Revista Cubana de Salud Pública, 40*(1), 40-54.
- Cortés, T. M., Espejo, T. B., Giménez, J. A., Luque, L., Gómez, R., & Motos, P. (2011). Creencias asociadas al consumo intensivo de alcohol entre adolescentes. *Salud y Drogas, 11*(2), 79-202.
- Espejo, G. T., Martínez, M. A., Chacón, C. R., Zurita, O F., Castro, S.M. & Cachón, Z. J. (2017) Consumo de alcohol y actividad física en adolescentes de entorno rural. *Health and Addictions 17*(1), 97-105.
- Fuente, J. R., & Kershenobich, D. (1992). El alcoholismo como problema médico. *Revista de la Facultad de Medicina UNAM, 35*(2), 45-51.
- Gámez-Medina, M. E., Guzmán-Facundo, F. R., Ahumada-Cortez, J. G., Alonso-Castillo, M. M., & Gherardi-Donato, E. C. (2017). Autoestima y consumo de alcohol en adolescentes escolarizados. *Nure investigación 14*(88), 1-9.
- Gutiérrez, J. P., Rivera-Dommarco, J., Shamah-Levy T., Villalpando-Hernández, S., Franco, A., Cuevas-Nasu L., Hernández-Ávila M. (2012). *Encuesta Nacional de Salud y Nutrición: Resultados nacionales*. Cuernavaca, México: Instituto Nacional de Salud Pública.
- Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz, Instituto Nacional de Salud Pública, Secretaría de Salud, Encuesta Nacional de Consumo de Drogas Alcohol y Tabaco. (2016). *Consejo Nacional contra las adicciones CONADIC*. Retrieved from <https://www.gob.mx/salud/conadic>
- Londoño, C., Torres, A., & Contreras, F. (2004). Validez empírica de los modelos de prevención aplicados a la conducta de fumar. *Psicología y Salud, 4*(2), 269-277.
- Londoño, C., & Valencia, S. (2010). Resistencia de la presión de grupo, creencias acerca del consumo y consumo de alcohol en universitarios. *Anales de Psicología, 26*(1), 27-35.
- López-Caneda, E., Mota, N., Crego, A., Velasquez, T., Corral, M., Holguín, S. R., & Cadaveira, F. (2014). Anomalías neurocognitivas asociadas al consumo intensivo de alcohol (bingedinking) en jóvenes y adolescentes: Una revisión. *Adicciones, 26*(4), 334-359.
- Márquez., A. T., Alonso-Castillo, M. M., Meza, M. V. G., Castillo, B. A. A., Rodríguez, N. N. O., & Armendáriz-García, N. A. (2016). Motivaciones para la actividad física deportiva y consumo de alcohol en estudiantes de preparatoria. *Ciencia y enfermería*. (Vol. XXII) (3), 47-59.
- Milena, A. P., Olmedilla, M. R., Gallardo, I. M., Puli-do, I. J., Fernández, M. L., & Milena, R. P. (2010). Motivaciones (creencias, expectativas y actitudes) para el consumo de alcohol entre adolescentes de un instituto urbano. *Atención primaria, 42*(12), 604-611.
- Mora-Ríos, J., Natera, G., & Juárez, F. (2005). Expectativas relacionadas con el alcohol en la predicción del abuso en el consumo en jóvenes. *Salud Mental, 28*(2), 82-90.
- Oradors-Rial, N., Ariza, C., & Muntaner, C. (2014). Consumo de riesgo de alcohol y factores asociados en adolescentes de 15 a 16 años de la Cataluña Central: Diferencias entre ámbito rural y urbano. *Gaceta Sanitaria, 28*(5), 381-385.
- Organización Mundial de la Salud. (2015). El consumo de alcohol. *Nota Descriptiva, 349*.
- Porter, L. K. (2012). El alcohol y el hígado. *Hepatitis C Support Project, 4*.
- Secretaría de Salud. (2009). *Norma oficial Mexicana para la prevención, tratamiento y control de las adicciones, NOM-028-SSA2-2009*. México, MX: Autor.
- Secretaría de Salud. (1987). *Reglamento de la ley general de salud en materia de investigación para la salud*. México, MX: Autor.
- Trujillo, H. M., Martínez-González, J. M., & Vargas, C. (2013). Associative relationships between beliefs about the social use of drugs and the consumption among young students. *Universitas Psychologica, 12*(3), 875-885.