ISSN: 0976-3031

Available Online at http://www.recentscientific.com

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 8, Issue, 12, pp. 22285-22288, December, 2017

International Journal of Recent Scientific Research

DOI: 10.24327/IJRSR

Research Article

CONSUMO DE ALCOHOL EN ESTUDIANTES DE PRIMARIA Y SECUNDARIA ALCOHOL CONSUMPTION IN PRIMARY AND SECONDARY SCHOOL STUDENTS

Morales MC*[1]., López KS[2]., Alonso M.M[2] and Guzmán FR[2]

[1]Benemérita Universidad Autónoma de Puebla, Facultad de Enfermería. Puebla, Puebla, México
[2]Universidad Autónoma de Nuevo León, Facultad de Enfermería. Monterrey, Nuevo León, México

DOI: http://dx.doi.org/10.24327/ijrsr.2017.0812.1239

ARTICLE INFO

Article History:

Received 15th September, 2017
Received in revised form 25th October, 2017
Accepted 23rd November, 2017
Published online 28th December, 2017

Key Words:

Religiosity, Self-efficacy, Alcohol Consumption, Elementary and Secondary School Students.

ABSTRACT

The purpose of the present study was to know the relation of personal factors such as age, sex, schooling, religiosity and self-efficacy with alcohol consumption of primary and secondary students. The sample made up of 150 students from Primary and Secondary schools, both genders, the sampling was stratified by proportional distribution to the size of the sample. A Personal Data Card and three instruments, The Duke University Religion Index (DUREL), Drinking Refusal Self-Efficacy Questionnaire-Revised in an Adolescent Sample (DRSEQ-RA) and the Alcohol Use Disorders Identification Test AUDIT. Among the main results found that there is a statistically significant negative relation between self-efficacy *(rs=-.375, p=.001)* and schooling *(rs=-.174, p=.033),* with alcohol consumption (measured through AUDIT). It is emphasized that the personal factors that predict the probability of alcohol consumption are sex factor *(B=-.092, p=.003)* and self-eficacy *(B=-.017, p=.039*), with an explained variance of 13.8%. The results of the present study show as age, schooling and self-efficacy are related with alcohol consumption of primary and secondary students. What is worth mentioning in this study, elementary students were included.

INTRODUCTION

The consumption of alcohol nowadays is considered an issue of health public because it affects the society and it represents a great risk in public health, according to the World Health Organization (WHO, 2015) it is a casual factor that more than 200 diseases and disorders provoke death and disability at an early age.

In the Americas, the consumption of alcohol represents a higher average than the rest of the world, additionally, in this region the patterns of consumption of alcohol in young people is much higher than in other regions (Organización Panamericana de la Salud, [OPS] 2015). The prevalence of consumption of alcohol in students younger than 14 years old shows the differences between one country to another. In United States, students of 8th grade (mainly 13 years old) show a number of 13% and in the case of Chile, students show a number of 19% on the other hand, countries like Colombia, Trinidad y Tobago and Dominica, the rates are around 40% and in the case of Santa Lucía, for this group of age, more than the half of the population, consume alcohol (Organización de los Estados Americanos, 2015).

In the countries of Latin America, it registers a drop in the beginning of alcohol consumption, besides, exits a social tolerance towards this consumption in determined social situations, like parties, celebrations, among others; which entails behavior patterns which involve indulgence towards the consumption of this substance (Grigoravicius M. *et al*, 2013).

Alcohol consumption affects great part of the population, however, the sensitivity to the effects of ethanol in children and adolescent students, this is due to the phase of brain maturity in which they are, that stimulates and strengthens drinking behavior (Rodríguez FD *et al*, 2014).

According to Diaz and Gonzalez (2014), adolescence is a stage in which they can incur in problem behaviors, among them, alcohol consumption.

Among others, the risky factors that have been found associated to alcohol consumption are sex, men consume more alcohol than women (Contreras *et al*, 2012); age, younger adolescents with less level of schooling, develop more consumption and experimentation (Grigoravicius M. *et al*, 2013; International Center for Alcohol Policies, 2009); the religious membership decreases the beginning of alcohol

Corresponding author:* **Morales MC
Benemérita Universidad Autónoma de Puebla, Facultad de Enfermería. Puebla, Puebla, México

consumption (Ford J, and Kardushin, 2002; Bartkowski JP and Xu X, 2007; Chen CY *et al*, 2004). Moreover, a low self-efficacy relates with a higher quantity of alcohol consumption (Oei TP*et al*, 2005).

From health promotion and alcohol prevention´s point of view, the nursing staff plays an important role in the attention focused in the people and community like children and adolescent students, as well as promoting and boosting healthy life styles (OPS and OMS, 2016). In the case of alcohol intake, it is desirable to avoid the risk consumption, it increases the risk of adverse effects to the drinker or the others (Flores C. *et al*, 2013).

According to the discoveries of literature, there is not enough clarity in the description of this phenomenon of alcohol abuse in students of elementary and middle school, due to the beginning of the stage of adolescence, they make them vulnerable. Identifying the role of personal factors in alcohol consumption, and considering psychological elements, it can contribute to the science of nursing to raise specific interventions of prevention of alcohol consumption in students of elementary and middle school.

According to the proposal made, the purpose of this study was to know the relation that exists in personal factors (sex, age, religion, and schooling) and self-efficacy with the consumption of alcohol in students of elementary and middle school, guided by the next objectives:

1. Identifying personal factors in students of 5th and 6th grade of elementary school and 1st, 2nd and 3rd grade of middle school.
2. Determining the prevalence and kind of alcohol consumption.
3. Determining the differences of religiosity and self-efficacy.
4. To know the relation of variance explained of the personal factors (age, sex, religion, schooling) self-efficacy and alcohol consumption in students of elementary and middle school.

This study stuck to the Regulation of General Law of Health in the Subject of Health Research (Ley General de Salud, 2017), it was supported by the favorable opinion of the Commission of Ethics in Investigation and the Research of the Nursing Faculty of Universidad Autónoma de Nuevo León, children and adolescents provided the assent informed, as well as their parents´ acceptance or their legal representative. We also obtained the authorization from the Secretary Public Education of the State of Puebla and from the schools where this study was held.

MATERIALS AND METHODS

The design of the study was descriptive and cross. The population was of students of 5th and 6th grade of elementary school and 1st 2nd and 3rd grade of middle school, coming from two public institutions of the State of Puebla. The sample was selected from a list provided by the Secretary of Public Education, the total of the sample was of 150 students that attended regularly these Institutions in both morning and afternoon classes. The sampling was stratified with proportional assignment to the size of the stratum. The stratum was made up of combinations of schooling level and scholar grade, in which we obtained 5 stratums (5th and 6th grade of elementary school and 1st 2nd and 3rd grade of middle school). The size of the sample was calculated using nQuery Advisor to one model of logistic regression with a level of significance of .05 with a power of 90%, odds ratio (OR) of 1.5. We obtained a sample of 130 participants considering a rate of no answer of 10% and an effect of design of 1.5 for which 150 students were interviewed.

Four instruments were applied in the following order: A card of personal information and alcohol consumption [CDPCA] made by the author of this article; The Duke University Religion Index (DUREL) (Koenig HG and Büssing A, 2010); Questionnaire of Self-Efficacy to Resist the Consumption of Alcohol [DRSEQ-RA] (Young RM *et al*, 2007) and the Alcohol Use Disorder Identification Test [AUDIT](De la Fuente J. and Kershenobich, 1992).

For the data processing, the SPSS 21.0 version was used (SPSS Inc., Chicago, IL). To identify the relation between these study variables, the Spearman correlation coefficient was applied and a multiple linear regression model was made.

RESULTS

In the results of the investigation made, we obtained from the total of the sample (150), 88 children (58.6%) belonged to the 5th and 6th grade of elementary school and 62 adolescents (41.4) to the three grades of middle school, 31.3% of the children were in 6th grade and 10% belonged to the 3th grade of middle school.

In order to cover the first objective, it was found and age average of $\overline{X}$ =12.17, DE = 1.59, and age range from 10 to 16 years old. To the relation to the gender, 53% were women.

It should be said that the religiosity index was 65.6 points, in a range from 0 to 100. Regarding to self-efficacy to resist the consumption of alcohol, it was found an average of 79 points, in a scale from 0 to 100. Regarding to the alcohol consumption experimentation, 42% answered that they did consume it only one time in their lives; however, 28.7% had never consumed this substance; it has to be noted that a 6% of survey respondents mentioned that experimented consumption of alcohol keep doing it so far. The average age of beginning the consumption of alcohol was at $\overline{X}$ =7.20, DE = 5.11 years old.

Regarding the second objective, it highlights that the consumption was once presented in 71.3% of the participants, the prevalence of consumption in the last year was 35.3%, in the last month there was a prevalence of 17.3 % and the consumption in the last seven days was 8.0% in students. (Chart 1)

Chart 1 Prevalence of alcohol consumption in students of elementary and middle school

Prevalence of alcohol consumption	*f*	*%*	*IC 95%*	
			LI	*LS*
One time in their lives	107	71.3	64.0	78.0
In the last year	53	35.3	28.0	43.0
In the last month	26	17.3	11.0	23.0
In the last seven days	12	8.0	4.0	12.0

Source: Instrument CDPCA
n=150

Concerning to the kinds of alcohol consumption, the sensible consumption was presented in more than the half of the

children of 5th and 6th grade of elementary school and the adolescents of middle school (59.3), the consumption of alcohol dependent kind reported 19.3% in students, it should be said that 21.3% of students reported a harmful consumption of alcohol. (Chart 2)

Chart 2 Types of alcohol consumption in students of elementary and middle school.

Types of alcohol consumption	f	%	IC 95%	
			LI	LS
Sensible	89	59.3	51.3	67.2
Dependent	29	19.3	12.9	25.7
Harmful	32	21.3	14.7	27.9

Source: Instrument CDPCA n=150

Regarding to the third objective that indicates the difference from religiosity and self-efficacy of resistance with the consumption of alcohol, it noted that they only presented differences in alcohol consumption (AUDIT) according to self-efficacy, which it means that the alcohol consumer participants reported lower scores of self-efficacy (X=74., DE =23.6) compared to the no alcohol consumers (X=86.0, DE = 25.4) (Chart 3).

Chart 3 Differences of alcohol consumption, according to religiosity and self-efficacy in students

Variables Alcohol Consumption	$\overline{X}$ ±	Mdn	U de Mann-Whitney	P Value
ReligiosityNo Consumer	67.7± 23.5	62.5	2596.0	.610
Si Consumer	64.1± 26.9	66.6		
Self-efficacy No Consumer	86.0± 25.4	96.8	1570.0	.001
Si Consumer	74.1± 23.6	80.0		

Source: Instruments: IRD, DRSEQ-RA n=150

To reach the fourth objective charts 4 and 5 are presented, it has to be noted that exists negative relation, with a size of small effect, but statistically significant to the self-efficacy variables (rs=-.375, p=.001) and schooling (rs=-.174, p=.033) with the consumption of alcohol (AUDIT) in which we can interpret that the less self-efficacy, the more is the alcohol consumption in students and that less schooling years the more is alcohol consumption.

Chart 4 Spearman correlation coefficient of study variables

Variable	1	2	3	4	5	6
1. Age (YearsofAge)	1					
2. Sex	-.016 (.847)	1				
3. Schooling	-.447** (.001)	-.104 (.207)	1			
4. Religiosity	-.390** (.001)	-.026 (.755)	.206* (.012)	1		
5. Self-efficacy	-.280** (.001)	.118 (.151)	.052 (.528)	.082 (.317)	1	
6. Alcohol Consumption	.369** (.001)	-.066 (.424)	-.174* (.033)	-.079 (.339)	-.375** (.001)	1

Source: Instruments CDPCA, IRD, DRSEQ-RA, AUDIT n=150

Age showed a positive relation, with a size of small and significant effect (rs=.369, p=.001) it interprets that the more the age the more the consumption. (Chart 4)

The multiple linear regressions indicated an R2 of .138, which indicates that the percentage of variation explained in factors such as age, sex, schooling, religiosity and self-efficacy, about alcohol consumption is 13.8%. It is observed that variables which predict the significant effect about alcohol consumption were the ages of (β = .491, p = .003) and self-efficacy (β = -.017, p = .039). (Chart 5)

Chart 5 Variable effect age, sex, schooling, profession, religiosity, self-esteem about alcohol consumption

Model 1	*Chi Cuadrada*	*Gl*	Significancy	R^2
	21.983	7	.003	13.8

Variable	B	S.E.	Wald	gl	Sig.
Age	.491	.166	8.727	1	.003
Sex	-.092	.372	.061	1	.805
Schooling	.073	.111	.433	1	.511
Religiosity Index	.009	.008	1.086	1	.297
Self- efficacy index	-.017	.008	4.241	1	.039

Source: Instrument CDPCA, IRD, DRSEQ-RA, AUDIT n = 150

DISCUSSION

The purpose of the present study was to disclose the personal factors and self-efficacy with the consumption of alcohol in elementary and middle school students, the principal findings showed that more than the half of students belonged to elementary and a lower percentage to middle school, this is largely because students are dropping out school as they progress to higher school grades. In relation to age it was found that the start of consumption in students had an average of seven year old students, which coincides with the ICAP report which mentions that younger people are more likely to show conducts of experimentation, as well as drinking more than other groups of age. Likewise, it agrees partially with Grigoravicius, Iglesias, Ponce, Garcia, Pandolfi y Bradichansky who found that most of the children from 8 to 10 years old, have consumed alcohol. This difference could be due to the ages, from 8 to 10 years old (78%) these people had in the majority of their sample, while in the present study people among 10 to 16 years old were included who were in elementary and middle school.

Regarding to the prevalence of consumption, in this research we obtained a higher percentage than the one reported by the Organization of American States (OAE) to the American hemisphere to middle school students where it is mentioned that the prevalence varies in some countries from 13% to more than 50% mainly in 13 year old students, what it should be noted is that in the present research it was found that the prevalence of consumption in the last year was 35.3% where elementary school students were included, that is to say, less than 13 years old, which is a consumption at an early age.

Despite the sensible consumption was presented in more than the half of the students, we also obtained that 21% of them reported a harmful alcohol consumption. In sensible consumption, subjects are classified in the ones who consume on a typical day up to two standard drinks (if they are women) and up to four (if they are men), harmful consumption groups

the ones who intake six or more standard drinks (women) and ten or more standard drinks (men) besides, friends, family and health personnel have manifested about the way they drink. It seems relevant since alcohol consumption at the stage of childhood and adolescence produces permanent changes in memory and ability to learn.

CONCLUSIONS

The results obtained in the present study must be considered with measure, given the limitations the study itself shows. First of all, its methodological design, of descriptive character, diminishes its power when extracting the result, even though they are statistically significant. In second place, the number of students of elementary school was higher in relation to the ones of middle school which probably influenced the results obtained. In third place, the students belong to a delimited geographical location which diminishes the capacity of generalization of these results. However, these limitations, this study has the value to be one of the first in analyzing the consumption of alcohol, its related socio-demographic patterns and characteristics in a population well known so far such as children of elementary school, given the similar studies are carried out in students of middle school with age ranges of 12 or more years. More studies are needed with other designs and samples and broader that allow to confirm or reject the results of the results showed here.

References

Bartkowski JP and Xu X. Religiosity and teen drug use reconsidered: a social capital perspective. *Am J Prev Med.* 2007; 32(6):182-194. doi: 10.1016/j.amepre. 2007.03.001

Chen CY, Dormitzer CM, Bejarano J and Anthony JC. Religiosity and the earliest stages of adolescent drug involvement in seven countries of Latin America. Am *J Epidemiol.* 2004; 159(12):1180-88.doi:10.1093/aje/ kwh151

Contreras L, Molina V, Cano MC. Consumo de drogas en adolescentes con conductas infractoras: análisis de variables psicosociales implicadas. Adicciones [Internet]. 2012; 24(1):31-38. Disponible en http://www.redalyc.org/articulo.oa?id=289122901005

De la Fuente J andKershenobich D. El alcoholismo como problema médico. RevFacMedUnivNacAuton Mex. 1992; 35(2):47-51.

Díaz CL and González MT. Conductas problema en adolescentes en la ciudad de Monterrey, México. Enfermería global. 2014;13(1):1-17. doi:http://dx.doi.org/10.6018/eglobal.13.1.184861

Flores C, Huerta MR, Hernández J, Páramo D and Morales I. Prevalencia de alcoholismo en trabajadores de la industria del cuero-calzado y su asociación con el nivel de desestrés. CiencTrab. 2013; 15(47):67-75. Disponible en http://www.scielo.cl/scielo.php?script=sci_arttext& pid=S0718-24492013000200006

Ford J, and Kardushin C. Between sacral belief and moral community: a multidimensional approach to the relationship between religion and alcohol among whites and blacks. *Sociolforum*. 2002;17(2): 255-79. doi: 10.1023/A:1016089229972

Grigoravicius M, Iglesias A, Ponce P, García J, Pandolfi M and Bradichansky L. Contexto familiar y consumo de sustancias psicoactivas en niños entre 8 y 12 años. Acta de Investigación Psicológica. 2013; 3(2): 1149-62. Disponible en http://www.psicologia.unam.mx/ documentos/pdf/actas_ip/2013/articulos_b/AIP_Facultad _de_Psicologia_UNAM_32_1149_1162_Contexto_fami liar_y_consumo_de_sustancias_psicoactivas_en_ninos_ entre_8_y_12_anos.pdf

International Center for Alcohol Policies. Washington; 2009. Capítulo, Determinants of drinking. Disponible en http://www.iard.org/wp-content/uploads/2016/01/Determinants-of-Drinking.pdf

Koenig HG and Büssing A. The Duke University Religion Index (DUREL): A five-item measure for use in epidemiological studies. Religions. 2010; 1: 78-85. doi:10.3390/rel1010078

Ley General de Salud. Última Reforma DOF 2017, Pub. L. (Enero, 27, 2017).

Oei TP, Hasking PA and Young RM. Drinking Refusal Self-Efficacy Questionnaire–Revised (DRSEQ–R): a new factor structure with confirmatory factor analysis. *Drug Alcohol Depend.* 2005;78(3): 297-307. doi: 10.1016/j.drugalcdep.2004.11.010

Organización de los Estados Americanos. El problema de drogas en las Américas: estudios. Drogas y salud pública. Estados Unidos; 2015. Disponible en http://www.cicad.oas.org/drogas/elinforme/informeDrog as2013/drugsPublicHealth_ESP.pdf

Organización Panamericana de la Salud, Organización Mundial de la Salud. Washington. Enfermería. 2016. Disponible en http://www.paho.org/hq/index.php?option=com_topics& view=article&id=189&Itemid=40855&lang=es

Organización Panamericana de la Salud. Informe de Situación Regional sobre el Alcohol y la Salud en las Américas. Departamento de Enfermedades no transmisibles y salud mental. Estados Unidos; 2015. Disponible en: http://www.paho.org/hq/index.php? option=com_docman&task=doc_download&gid=31093 &Itemid=270&lang=es

Rodríguez FD, Sanchiz ML andBizquerra R. Consumo de alcohol en la adolescencia. Consideraciones médicas y orientaciones educativas. Salud Ment. 2014;37(3):255-60. Disponible en http://www.redalyc.org/pdf/ 582/58231365010.pdf

World Health Organization. Alcohol. Ginebra: Le Mont-sur-Lausanne; 2015. Disponible en: http://www.who.int/ mediacentre/factsheets/fs349/es/

Young RM, Hasking PA, Oei TP and Loveday W. Validation of the Drinking Refusal Self-Efficacy Questionnaire-Revised in an Adolescent Sample (DRSEQ-RA). Addict Behav. 2007; 32(4):862-68. doi:10.1016/j.addbeh.2006. 07.001

****