Original Article

Consumption of alcohol and depression in students of a public school of Coatzacoalcos, Veracruz, Mexico

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Descriptive and transverse study aimed to examine the relationship between the level of depression and the pattern of alcohol consumption in students of a public school in Coatzacoalcos, Veracruz, Mexico. The sample reached 175 students of both sexes between 15 and 19 years old selected by simple random sampling. It was used a document containing personal data, the Zung Self-Rating Depression Scale and the AUDIT test. It was found that 96.6% of participants presented some level of depression, 97.9% were women and 95.1% were men. Regarding the consumption of alcohol, 58.3% reported consuming it, 14.3% with risk consumption, 2.9% with harmful use and 1.1% already showed dependence. It was found that most young people consume alcohol and have some level of depression.

Descriptors: Depression; Alcoholism; Adolescent.

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Depressão e consumo de álcool em estudantes de uma preparatória pública de Coatzacoalcos, em veracruz no México

Estudo descritivo e transversal cujo objetivo foi analisar a relação entre o nível de depressão e o padrão de consumo de álcool em alunos de uma preparatória pública de Coatzacoalcos, Veracruz, no México. A amostra perfez 175 estudantes de ambos os sexos, entre 15 e 19 anos, selecionados por amostragem aleatória simples. Utilizou-se, um documento com dados pessoais, a escala Auto aplicada de Zung, e o teste AUDIT. Encontrou-se 96,6% dos participantes apresentando algum nível de depressão, 97,9% de mulheres e 95,1% de homens. No consumo de álcool 58,3% informou ingeri-lo, 14,3% com consumo de risco, 2,9% de consumo prejudicial e 1,1% já apresenta dependência. Identificou-se que a maioria dos jovens consomem álcool e apresentam algum nível de depressão.

Descritores: Alcoolismo;Depressão; Adolescentes

Depresión y consumo de alcohol en estudiantes de una preparatoria pública de Coatzacoalcos, en Veracruz, México

Estudio descriptivo y transversal cuyo objetivo fue analizar la relación entre el nivel de depresión y el padrón de consumo de alcohol en alumnos de una preparatoria pública de Coatzacoalcos, Veracruz, México. La muestra trabajó con 175 estudiantes de ambos los sexos, entre 15 y 19 años, seleccionados por muestreo aleatorio simple. Se utilizó, un documento con datos personales, la escala Auto aplicada de Zung, y la prueba AUDIT. Se encontró 96,6% de los participantes presentando algún nivel de depresión, 97,9% de mujeres y 95,1% de hombres. En el consumo de alcohol 58,3% informó ingerirlo, 14,3% con consumo de riesgo, 2,9% de consumo prejudicial y 1,1% ya presenta dependencia. Se identificó que la mayoría de los jóvenes consumen alcohol y presentan algún nivel de depresión.

Descriptores: Depresión; Alcoholismo; Adolescentes.

Introduction

Depression is considered a public health problem and one of the most common disorders among the people of different countries, currently occupying the fourth place among the diseases with the greatest lack of capacity and approximately 200 million people suffer from the same [1].

The World Health Organization estimates that by 2020 depression will be one of the most common disorders and will occupy the second place among the causes of disease [2]; depression is classified within the disorders of affect and is characterized by subjective feelings of grief, sorrow, discouragement, loneliness and isolation with changes in thought, behavior and somatic and affective side which may hinder the normal functioning of the human being [3].

In Mexico it is estimated a prevalence of depression of 12% to 20% among population of 18-65 years old, 5.8% of them are women and 2.5% are men [4]. In the state of Veracruz there is currently a rate of depression of 60.6% among the young population [5]. Adolescence itself is considered as a difficult phase that young people must face, where it runs the risk of suffering from depression, and the manifestations vary according to gender, values, emotional adjustment and educational level, as well as the environment where young people develop themselves [2].

Sometimes it presents itself as a transient and common problem, where symptoms can be masked and manifest themselves, in many cases, with substance abuse, including alcohol and other drugs, as well as aggressive

behavior, learning disorders, propensity to automobile accidents, excessive sexual conduct, compulsion to games or food, diseases or reckless acts that endanger the lives of young people[2].

With regard to alcohol consumption half of the world's population consumes it, even though there are large differences among and within the countries, this activity is part of the social and cultural practices in many regions of the world[6].

Alcohol is a psychoactive substance that affects the brain and most body organs of the consumer, also impacting the people around them, relates to family violence and fatal traffic accidents[6]. Moreover, contribute significantly to the overall number of deaths, and is the fifth overall risk factor for premature death and the lack of ability to work. It is estimated that in 2004 2.5 million people around the world died from causes related to alcohol consumption, including 320,000 young people of 15 to 19 years old[7].

In Mexico, the National Survey of Addictions (N) 2008, indicates that nearly 27 million of Mexicans between 12 and 65 drink large amounts of alcohol, and higher levels of consumption are presented from 18 to 29 years old, highlighting a significant increase, especially among teenagers. For Mexican adolescents beer is the preferred drink, after the distillate and in a significantly lower proportion, prepared drinks and wine[8].

Particularly in the state of Veracruz the ENA 2008 reports that the daily consumption of alcohol for men (0.9%) is below the national average and women do not present prevalence of daily consumption. The abuse/ dependence is find in both men (10.2%) and women (1.5%), numbers within the national average, but that represent a problem in the state of delicate health by the absence of regulation on the sale to minors[8].

In young people the combination of curiosity, the behavior associated with the tendency to take risks and social pressures are important predisposing factors due to the attitudes of approval and identification by the peers constitute an important factor associated with alcohol consumption in adolescents[9].

Repetitive and regular consumption of alcohol in leisure moments may generate other problems such as anxiety and depression, and then some adolescents use alcohol regularly to compensate the anxiety, depression and lack of positive social qualities[10].

As noted currently the consumption of alcohol by adolescents is a threat to public health, not only a negative impact on biological and physical, but also psychological in those who consume it, which can cause many psychiatric disorders, among which identifies depression, and was identified that women are 3.7 times more likely to experience a depressive episode than men[11].

According to what has been explained above this study aimed to examine if there is a relationship between the level of depression and the pattern of alcohol consumption by students of a public school of the city of Coatzacoalcos, Veracruz, Mexico.

Methodology

The design of this study was descriptive and transversal. The population was formed by students from a school located in the suburban area of the city of Coatzacoalcos, Veracruz, Mexico. 175 students of both sexes participated in the sample, registered in the period of 2010 and who was studying in the second and fourth semester, selected by simple random probability sampling.

To collect the data were used a document with identification data and two instruments, the first was Zung Self-Rating Depression Scale, consisting of 20 Likert type questions with four response options: 1 (nothing or a few times) 2 (sometimes), 3 (often) and 4 (always); divided into four categories: affective, physiological, psychomotor and psychological. To determine the level of depression the results were classified as follows: a score less than or equal to 28 points means no depression, 29 to 41 is mild depression, 42-53 is moderate depression and 54 points or more is severe depression. Although the high scores do not imply a diagnosis, allow to analyze the depressive syndrome in its different symptomatic aspects[12,13]. In this study the reliability reported by this scale was 80.

The second instrument was the proof of Identification of Alcohol Use Disorders AUDIT, an instrument with cross-cultural validity used to identify excessive consumption of alcohol; it is composed of 10 reactive, examines the use of alcohol during the past 12 months and was approved in the Mexican population. It has a maximum value of 40 points and a minimum value of zero, the higher score means higher alcohol consumption, dependence and harm[14]. The internal consistency of the instrument reported in this study was 0.86.

In the ethical aspect the research was based on the provisions of the general law of health in research for health issued by the Health Secretary in 1987[15]. For the realization of the project it was expected the approval of the ethics committee of the nursing college of Minatitlan campus of Veracruzana University as well as approval of the authorities of the institution of education. To collect the first information it was sought the school, where through a list were selected the students who participate in this study and were informed about the informed consent to ensure the reliability of information and that they would not be identified in any part of the study. After formalized with the signing of the consent, it was proceeded the implementation of the instruments in a time of approximately 25 minutes. At the end of data collection, its storage and analysis was proceeded through Statistical Package for the Social Sciences [SPSS] statistical program, Spanish version 17.0.

Results

Participate in this study 80 men (45.7%) and 95 women (54.3%) between 15 and 19 years old with a mean age of 16.7. It was identified that 93.1% of young people live with both parents and 6.9% with other family members.

Due to the level of depression the findings show that 96.6% of the participant showed some level of depression according to the measuring scale of Zung. This is a worrying result as this situation may represent a failure in young people to respond to the demands of the environment, putting them at risk of making poor decisions that can severely affect their mental health.

Table 1 - Level of depression according to gender in students of a public school of Coatzacoalcos city, Veracruz, Mexico

	Male		Female		T
	f	%	f	%	
Absence of depression	4	5,0	2	2,1	6
Mild depression	41	51,3	42	44,2	83
Moderate depression	35	43,8	48	50,5	83
Severe depression	-	-	3	3,2	3
Total	80	100	95	100	175

Source: Zung Scale

By analyzing the levels of depression by gender, it is observed in Table 1 that women have a greater tendency to depression 97.9%, highlighting 3.2% that presents indicators of severe depression which could be affecting the mental and physics health of these young people. In men this variable is presented as a lower number (95.1%). Although the difference is minimal it is noteworthy that mild depression (51.3%) was greater in men than in women, representing that the depressive phenomenon already impacts in this group of the population with common health implications in this situation.

With regard to alcohol consumption, it is observed in Table 2 that 58.3% of these young people indicated to have consumed alcohol, 40% do this consumption as normal, however 14.3% are consuming within the risk standard; stands out 2.9% that informs to consume in a harmful way and 1.1% that is already showing signs of dependence according to the AUDIT scale parameters, which can mean that these young people have reflexes in their physical and mental health in short or long term if they continue consuming within these parameters.

Analyzing alcohol consumption according to gender it is observed in Table 3 that the gender difference is not very large due to 67.5% of men and 50.5% of women who have already consumed alcohol. According to the risky consumption, 13.8% of men manifest this pattern fewer than reported by women, since 14.7% of those who reported drinking alcoholic beverages do this in a risky way, data that highlight that these young teens are consuming more than men, which could trigger an increase in consumption levels if they continue with that habitual consumption, without discarding a possible future dependency. About the harmful and damaging consumption they are presented only in men with 6.3% and 2.5% respectively, data that show the age so low of these young people, it looks like they have already problems with their way of consuming alcohol.

When performing the analysis of the relationship between alcohol consumption and depression, Table 4 shows that 98.3% of young people reported consuming alcohol and had some level of depression, but it is important to mention that the majority of students who said not drinking alcohol also reported some level of depression, as only 1.7% of abstainers did not show any level of depression.

It is worth noting the presence of severe depression levels in 3 students, of which 2 reported consuming without risk and one does not consume alcohol.

Table 2 - Alcohol Consumption according to the Audit scale in students of a public school of Coatzacoalcos city, Veracruz, Mexico

Audit scale	f	%
Abstainer	73	41,7
Normal consumption	70	40,0
Risk consumption	25	14,3
Harmful consumption	5	2,9
Dependent consumption	2	1,1
Total	175	100

Source: AUDIT

Table 3 - Consumption patterns according to gender in students of a public school of Coatzacoalcos city, Veracruz, Mexico

	Male		Female		T
	f	%	f	%	
Abstainer	26	32,5	47	49,5	73
Normal consumption	36	45,0	34	35,8	70

SMAD, Rev. Eletrônica Saúde Mental Álcool Drog. Sept.-Dec. 2012;8(3):142-7.

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Table 3 - (continuation)

	Male		Female		T
	f	%	f	%	
Risk consumption	11	13,8	14	14,7	25
Harmful consumption	5	6,3	-	-	5
Dependent consumption	2	2,5	-	-	2
Total	80	100	95	100	175

Source: AUDIT

Regarding to risk consumption and its relationship to depression all participants who consume in this way reported levels of mild (5.1%) and moderate depression (9.1%), similar behavior in harmful consumption, highlights that the 2 young people who consume in dependent way manifested symptoms of moderate depression, these data refer that there are indications that there is a relationship between alcohol consumption and levels of depression in these students.

Table 4 - Alcohol consumption pattern and levels of depression in students of a public school of Coatzacoalcos city, Veracruz, Mexico

	Absence of depression		Mild depression		Moderate depression		Severe depression		T
	f	%	f	%	f	%	f	%	
Abstainer	3	1,7	37	21,1	32	18,2	1	0,05	73
Normal consumption	3	1,7	33	18,9	32	18,2	2	1,1	70
Risk consumption	-		9	5,1	16	9,1	-		25
Harmful consumption	-		4	2,2	1	0,5	-		5
Dependent consumption	-		-		2	1,1	-		2
Total	6		83		83		3		175

Source: Zung Scale and AUDIT

Discussion

The results of this study identified the prevalence of depression and alcohol consumption in young students of a public school of Coatzacoalcos city, Veracruz, Mexico. It was found that 96.6% of young people between 15 and 19 years old had some level of depression, this is similar to the results of Balcázar and Col.[2], in their study they mentioned that adolescence is a stage of life where young people are more vulnerable to present some level of depression.

In relation to gender and the presence of depression, it was found 97.9% in women and 95.1% in men, which coincides with that reported by CONADIC, when it mentions that in women there is more likely to have a depressive episode than in men[11]. Although the difference is minimal, which follows the characteristic of females with greater predisposition to suffer depression, it is alarming to note that men are showing a higher percentage of mild depression, which also gives the estimated by WHO[6], indicating that this suffering will increase and that depression will be one of the most common disorders and will occupy the second place among the causes of illness in the general population.

With regard to alcohol consumption was identified that 40.7% of this population reports being abstinent, 58.3% consumes alcohol, 40% drinks as a normal way, 17.2% are within the risk standard and 1.1% already have a probable dependence. What coincides reported by the ENA of the state of Veracruz[8] which indicates that the abuse/dependence is within the national average. However it is important to note that be within the national average does not mean normality and these young people are suffering physical and/or emotional problems due to their drinking.

In relation to gender was observed that men are showing higher consumption than women. However, this study finds that it is women who are consuming in a risky way, fact checking with the national ENA reported in 2008 [8] which reflects a notable increase in the consumption of alcohol by female adolescents.

Regarding the consumption of alcohol and the level of depression this study found that levels of moderate and severe depression were presented more frequently in young people who reported consuming alcohol in the normal, dependent and harmful ways than those who reported not consuming. A possible relationship between alcohol consumption and the depression, similar to the way identified study Christie Burke and Cols.[15], supported the research which found a high relationship between depression and alcohol consumption.

Conclusion

The results showed that most young people have levels of depression and alcohol consumption. Depression predominated in women and students consumers. This highlights that the mental health of these young people

are being affected by the levels of depression that they present, situation which, if continues without being resolved, could increase the risky behaviors, including alcohol consumption, that is only one alternative in which young people find a free expression for their sad emotions.

Acknowledgment

References

1. González, S., De la cruz D., & Martínez, X. La medición de la depresión en adolescentes: Una propuesta psicométrica. Universidad Veracruzana. Psicología y Salud 2007. (Consulta diciembre 2009); 17 (002): 199-205.

2. Balcázar P., Bonilla M., Santamaría J., Gurrola G., Trejo L. Evaluación de la depresión en hombres y mujeres preuniversitarios. Revista Neurología, Neurocirugía y Psiquiatría. 2007; (consulta diciembre 2009); 40(4): 97-101

3. Organización Mundial de la Salud. Diagnostico Situacional en Salud Mental. OMS 1996.

4. Bello M., Puentes-Rosas E., Medina-Mora M., Lozano R., Prevalencia y diagnostico de depresión en población adulta en México. Salud Pública Mex. 2005; 47 supl 1:S4-S11.

5. Periódico la jornada. Afecta la depresión a los estudiantes de bachillerato. La jornada 2008.

6. Organización Mundial de la Salud. Documento de Trabajo para la elaboración de un proyecto de estrategia mundial para reducir el uso nocivo del alcohol. OMS 2009. Disponible en: http://www.who.int/substance_abuse/activities/globalstrategy/es/index.html

7. Organización Mundial de la Salud. Documento de Trabajo para la elaboración de un proyecto de estrategia mundial para reducir el uso nocivo del alcohol. OMS 2009. Disponible en: http://www.who.int/substance_abuse/activities/globalstrategy/es/index.html

8. Alcohol y Salud Pública en la Américas: Un caso para la Acción. Organización Panamericana de la Salud, Washington, D.C, 2007.

9. Encuesta Nacional de Adicciones, 2008. ENA. Acceso en Enero del 2010: Disponible en http://www.salud.gob.mx: http://www.salud.gob.mx/unidades/conadic/

10. Porciel, A., El Consumo de Bebidas Alcohólicas. Un Estudio en los Estudiantes del Nordeste Argentino. Instituto de Criminalística y Criminología – UNNE

11. Vogelmann, O., Gutierrez, G., Morales, B., Silvina M., Viglione, G., Lojo, J., Bogado, Zulema., Ojeda, J., Abuso de alcohol en adolescentes. Universidad nacional del noreste 2004. Consumir alcohol antes de los 15 años aumenta el riesgo de dependencia. Simposio Alcohol y Políticas Públicas. Consejo Nacional Contra las Adicciones, 2010. Consultado en Agosto 2010. Disponible en http://www.conadic.salud.gob.mx/prensa/boletines2010/consumiralcohol_140510.html

12. Escala para la depresión Zung, online. 2009. Consultado Octubre 2009, Disponible en: http:// www.depresion.psicomag.com/esc_zung.php

13. Piñerúa-Shuhaibar 2007, L., Estévez J., Suárez-Roca H., Autoescala de Zung para depresión como predictor de la respuesta sensorial y autonómica al dolor. Maracaibo, Venezuela. Consultado en Junio 2010.

14. Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. AUDIT Cuestionario de Identificación de los Trastornos debidos al Consumo de Alcohol. Ginebra, Suiza: OMS; 2001.

15. López, S. C., Freirxinós, R.M., Psicopatología y consumo de alcohol en adolescentes. España, 2001.