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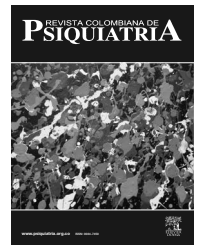

Original Article

Prevalence of Alcohol Problem Drinking Among the Indigenous Population in Colombia

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A B S T R A C T

Background: Some studies have reported a high prevalence of alcohol drinking problem among indigenous populations in Latin America. However, there is no available information on some of the variables associated with alcohol problem drinking.
Objective: To determine the prevalence and some factors associated with alcohol problem drinking among a sample of Colombian indigenous population in Bogotá, Colombia.
Method: A cross-sectional study was conducted using a Colombian indigenous population sample over 15 years old living in the community. Alcohol problem drinking was quantified with the Alcohol Use Disorders Identification Test (AUDIT) (Cut-off point of 8). Non conditional logistic regression was computed to adjust associated variables.
Results: A total of 184 subjects from the indigenous population participated in this research. The mean age was 32.0±14.0 years and educated for 6.0±3.7 years. A total of 84 participants (45.7%) reported alcohol problem drinking. The AUDIT showed Cronbach alpha of 0.877. Male sex (OR=4.2; 95%CI, 2.2-7.6), and longer time living in Bogota (OR=1.8; 95%CI, 1.0-3.2) were associated with alcohol problem drinking.
Conclusions: Almost 50% of the Colombian indigenous population living in Bogota meet criteria for alcohol problem drinking. Male gender and longer time living in Bogota are related to alcohol problem drinking. Further studies are needed to formally identify alcohol abuse or dependence.

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Prevalencia del consumo problemático de alcohol entre los indígenas colombianos

Palabras clave:
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R E S U M E N

Antecedentes: Algunos investigadores informan de alta prevalencia de consumo problemático de alcohol entre los indígenas de América Latina. Sin embargo, no hay información disponible acerca de algunas variables asociadas al consumo problemático de alcohol.
Objetivo: Estudiar la prevalencia y algunos factores asociados al consumo problemático de alcohol en una muestra de una comunidad indígena en Bogotá, Colombia.
Método: Se llevó a cabo un estudio transversal. Participó una muestra de indígenas mayores de 15 años. El consumo problemático de alcohol se cuantificó con el test de identificación de trastornos del alcohol (AUDIT) (punto de corte, 8). Se realizó un modelo de regresión logística no condicional para ajustar las variables asociadas.
Resultados: Un total de 184 indígenas participaron en este estudio. La media de edad fue de 32,0 ± 14,0 años y el tiempo de escolarización, 6,0 ± 3,7 años. Un total de 84 participantes (45,7%) informaron de consumo problemático de alcohol. El AUDIT mostró una consistencia interna de 0,877. El sexo masculino (*odds ratio* = 4,2; intervalo de confianza del 95%, 2,2-7,6) y mayor permanencia en Bogotá (*odds ratio* = 1,1; intervalo de confianza del 95%, 1,0-3,2) se asociaron al consumo problemático de alcohol.
Conclusiones: En Bogotá, cerca del 50% de los indígenas colombianos hacen un consumo de alcohol problemático. El sexo masculino y vivir en Bogotá están relacionados con el consumo problemático de alcohol. Se necesitan más investigaciones en que se realicen diagnósticos formales de abuso o dependencia de alcohol.

Background

Colombia is a South American country inhabited by approximately 47 million people. Most of the population is mixed people descended of Caucasians, African Americans and indigenous. Today, around 87 indigenous groups account for less than 3.3% of the Colombian population. Most of these groups live in the jungle or in indian reservations and few in the city.[1]

In Colombia, there are no studies reporting the frequency of disorders related to alcohol drinking by the questionnaire Alcohol Use Disorders Identification Test (AUDIT). However, the prevalence of alcohol problem drinking reached 5.7% (1.4% in women and 10.0% in men) of the general population, according to the CAGE questionnaire.[2]

Some studies with non-indigenous populations from other South American countries with the AUDIT show different prevalence of alcohol problem drinking. For example, in Brazil's urban population, Mendoza-Sassi et al[3] reported a prevalence of alcohol problem drinking of 7.9% (14.5% in men and 2.4% in women).

On the other hand, Venezuela's indigenous residents in mountain villages, Seale et al[4] observed that 46.6% of participants reported alcohol problem drinking (86.5% in men and 7.5% in women), quantified on the AUDIT. Subsequently, Seale et al found in a sample of indigenous dwelling in urban area of Venezuela showed 55.4% alcohol problem drinking (88.5% in men and 17.3% in women).[5]

Weisner et al[6] observed that the pattern of drinking and attitude toward alcohol were related to the tribe of origin, age and socioeconomic status. Seale et al[7] and Yu et al[8] suggested that the high prevalence of alcohol problem drinking in indigenous is explained by cultural change or transition. Also, Beal et al[9] concluded that increased consumption of alcohol in American indians living in reservations is due to the lack of reinforcements from everyday life such as employment, housing, education and health care.

In general, studies show that indigenous population has an increased risk of alcohol abuse or dependence.[10-14] Disorders related to alcohol drinking are the main cause of global morbidity due to chronic diseases, injuries and violent deaths.[15-18] Similarly, disorders related to alcohol consumption account for a significant number of potential years of life lost because of disability and death.[19,20]

The objective of this study was to determine the prevalence of alcohol problem drinking and explore some associated variables in a sample of indigenous residents in the urban area of Bogota, Colombia.

Method

It was designed a cross-sectional study. Written permission was requested to the senior authority of an indigenous community living in Bogota, Colombia, according to Colombian law. Participants gave verbal consent after learning objectives and that investigation posed no risk to

their physical and emotional integrity. Participation of minors required parental permission.

It was taken a non-probability sampling, for convenience, with the participation of volunteers. It was included people over than 15 years old, without distinction of sex or schooling. Participants were asked for an interview that included basic demographic information, the residence time in the city and the identification of alcohol problem drinking with the AUDIT questionnaire.

The questionnaire consists of ten items; three explore risky alcohol drinking; three, alcohol dependence symptoms, and four, harmful drinking. Each item has a polytomous response pattern (Likert) of five options that are scored from zero to four. Ratings from 8 were taken as alcohol problem drinking.[21] The AUDIT questionnaire shows excellent psychometric performance: about 0.90 internal consistency and good sensitivity (0.92) and specificity (0.94) with a cutoff of 8.[21-23]

Professionals trained for this purpose applied the whole questionnaire, included AUDIT. The assessment did not include the completion of a formal diagnosis of alcohol abuse or dependence according to ICD-10 or DSM-5.[24,25] Participants who were less proficient in Spanish had simultaneous translation by a native.

Data were analyzed in STATA.[26] It was performed a descriptive analysis of the information. Subsequently, it was explored the association of age, sex, education and residence time in Bogota with the presence of problem drinking.

Results

In the present research participated a total of 184 indigenous aged between 15 and 81 years old (mean, 32.0±14.0); a group of 101 indigenous was between 15 and 30 years old (54,9%); and 83, between 31 and 81 years old, dwelling in low- and middle income areas of the city.

A total of 100 (54.3%) indigenous was males and 84 (45.7%), females. They coursed formal scholarship between 0 and 15 years (mean, 6.0±3.7); 91 participants (49.5%) completed at least of five years, and 93 (50.5%) more than five years.

According to the time of residence in Bogota, 70 indigenous (38.1%) were between 1 and 20 years; and 114 (61.9%), more than 20 years. Evaluation of alcohol problem drinking with AUDIT showed high reliability, the questionnaire shows Cronbach alpha of 0.88.

In relation to the frequency of alcohol problem drinking, a total of 84 participants (45.7%) reported alcohol problem drinking; the prevalence was 61.0% in males, and 27.4% in females.

Associations with alcohol problem drinking were male sex (OR=4.2; 95%CI, 2.2-7.6), longer time of resident in Bogota (OR=1.8; 95%CI, 1.0-3.2), lower scholarship (OR=1.5; 95%CI, 0.8-2.7), and older than 30 years old (OR=1.4; 95%CI, 0.8-2.6).

Discussion

The findings of this research are consistent with the high prevalence of alcohol problem drinking shown in Amerindians.[4,5,10-14] However, in Chile, Vincent et al[27] found that Mapuche indigenous showed that prevalence of alcohol problem drinking was similar to the general population.

The findings in the present research shows that age was not associated with alcohol problem drinking. There are no previous studies that reported the association between age and alcohol problem drinking among indigenous population. However, using AUDIT with non-indigenous sample, alcohol problem drinking was independent of age.[3]

In present research male sex is related to alcohol problem drinking. The observation is consistent with previous studies that report higher prevalence of alcohol problem drinking among men than women in indigenous population. In Venezuelan indigenous in a first research the frequency of alcohol problem drinking was 86.5% in men and 7.5%; and in the second one, 88.5% in men and 17.3% in women.[5] Similarly, among non-indigenous population, men report higher prevalence of alcohol problem drinking than women.[3]

The present research did not find any association between formal education and alcohol problem drinking. There are not precedent studies reporting this relationship among indigenous people. Although, Weisner et al[6] observed that socioeconomic status, as indicator of educational formation en the United States of America, was found to be weaker predictors of alcohol drinking use.

In the present study, residence time in Bogota was related to alcohol problem drinking. Previous researches have not reported residence time in the city; nevertheless, Seale et al[5] found that the prevalence of alcohol problem drinking was similar for those born in the city and those born elsewhere.

It should be remembered that the pattern of alcohol drinking, at least in North American tribes, is unequal among different groups;[28] however, the presence of alcohol problem drinking in indigenous groups, as in other ethnic groups, is related to multiple factors, for indigenous may be precipitating stressors such as migration, experiences of discrimination, or economic disadvantages and even genetic variations in alcohol metabolism.[29] For example, Yu et al[7] noted that native Americans pride in the culture and spirituality was associated significantly with fewer symptoms associated with alcohol drinking.

In Colombia, it is necessary to note that some indigenous communities are located in urban centers due to forced displacement caused by armed conflict in Colombia.[30,31] Moreover, indigenous groups represent up to 10% of the population in Latin America and the Caribbean.[31] However, access to prevention programs and health services are very unequal.[33,34] Alcohol problem drinking requires a multidimensional approach that considers the culture of each group. Evan et al[35] observed that alcohol prevention programs and other substances among indigenous in California, United States, showed similar results than among non-indigenous.

This study presents important information, it is the first about prevalence and some associated variables to alcohol problem drinking in Colombian indigenous people. Nevertheless, alcohol problem drinking was evaluated with the AUDIT questionnaire that does not permit a formal diagnosis of alcohol abuse or dependence.

In Bogota, Colombia, it is high the prevalence of alcohol problem drinking among indigenous people. Male gender and longer established in Bogota are related to alcohol problem drinking, suggesting cultural factors. Further researches are needed; it shall include the application of a structured clinical interview to identify alcohol abuse or dependence according to DSM-5 or ICD-10.

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Conflicts of interests

None.

REFERENCES

1. National Population Census, 2005. Bogotá: DANE; 2005.
2. Campo-Arias A, Jaimes DA, Díaz-Martínez LA. Daily cigarette smoking in Bucaramanga, Colombia: prevalence and associated factors. Duazary. 2010;7:9-14.
3. Mendoza-Sassi RA, Béria JU. Prevalence of alcohol use disorders and associated factors: A population-based study using AUDIT in southern Brazil. Addiction. 2003;98:799-804.
4. Seale JP, Seale JD, Alvarado M, et al. Prevalence of problem drinking in a Venezuelan Native American population. Alcohol Alcohol. 2002;37:198-204.
5. Seale JP, Shellenberger S, Sánchez N, et al. Characteristics of problem drinking in an urban South American Indigenous population. Subst Use Misuse. 2010;45:2185-202.
6. Weisner TS, Weibel-Orlando JC, Long J. "Serious drinking", "white man's drinking" and "teetotaling": Drinking levels and styles in an urban American Indian population. J Stud Alcohol. 1984;45:237-50.
7. Seale JP, Shellenberger S, Rodriguez C, et al. Alcohol use and cultural change in an Indigenous population: A case study from Venezuela. Alcohol Alcohol. 2002;37:603-8.
8. Yu M-S, Stiffman AR. Culture and environment as predictor of alcohol abuse/dependence symptoms in American Indian youths. Addict Behav. 2007;32:2253-9.
9. Beals J, Belcourt-Dittloff A, Freedenthal S, et al. Reflections on a proposed theory of reservation-dwelling American Indian alcohol use: Comment on Spillane and Smith (2007). Psychol Bull. 2009;135:339-43.
10. Leung PK, Kinzie JD, Boehnlein JK, et al. A prospective study of the natural course of alcoholism in a Native American village. J Stud Alcohol. 1993;54:733-8.
11. Thommasen HV, Hanlon N, Thommasen C, et al. Alcohol drinking habits and community perspectives on alcohol abuse in the Bella Coola Valley. Can J Rural Med. 2006;11:15-21.
12. Seale JP, Shellenberger S, Spence J. Alcohol problems in Alaska natives: Lesson from the Inuit. Am Indian Alask Native Health Res. 2006;13:1-31.
13. Gilman SE, Breslau J, Conron KJ, et al. Education and race-ethnicity difference in the lifetime risk of alcohol dependence. J Epidemiol Community Health. 2008;62:224-30.
14. Dickerson DL, O'Malley SS, Canive J, et al. Nicotine dependence and psychiatric and substance use comorbidities in a sample of American Indian male veterans. Drug Alcohol Depend. 2009;99:169-75.
15. MacMillan HL, MacMillan AB, Offord DR, et al. Aboriginal health. Can Med Assoc J. 1996;155:1569-78.
16. Mokdad AH, Marks JS, Stroup DF, et al. Actual causes of death in the United States, 2000. JAMA. 2004;291:1238-45.
17. Li Y-M, Tsai S-Y, Hu S-C, et al. Alcohol-related injuries at an emergency department in eastern Taiwan. J Formos Med Assoc. 2006;105:481-8.
18. D'Costa G, Nazareth I, Naik D, et al. Harmful alcohol use in Goa, India, and its associations with violence: a study in primary care. Alcohol Alcohol. 2007;42:131-7.
19. Michaud CM, McKenna MT, Begg S, et al. The burden of disease and injury in the United States 1996. Populat Health Metrics. 2006;4:11.
20. Alcohol-attributable deaths and years of potential life lost among American Indians and Alaska natives – United States, 2001-2005. MMWR. 2008;57:938-41.
21. Saunders JB, Aasland OG, Amundsen A, et al. Alcohol consumption and related problems among primary care patients: WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption–I. Addiction. 1993;88:349-62.
22. Saunders JB, Aasland OG, Babor TF, et al. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption–II. Addiction. 1993;88:791-804.
23. Conigrave KM, Hall WD, Saunders JB. The AUDIT questionnaire: choosing a cut-off score. Addiction. 1995;90:1349-56.
24. Organización Mundial de la Salud. Clasificación Internacional de las Enfermedades (CIE). Trastornos mentales y del comportamiento. Criterios diagnósticos de investigación. 10.ª ed. Madrid: Meditor; 1993.
25. American Psychiatric Association. Desk reference to the diagnostic criteria from DSM-5. Washington: American Psychiatric Publishing; 2013.
26. STATA 9.0. College Station: Stata Corporation; 2005.
27. Vicente B, Kohn R, Rioseco P, et al. Psychiatric disorders among the Mapuche in Chile. Int J Soc Psychiatry. 2005;51:119-27.
28. Beals J, Spicer P, Mitchell CM, et al. Racial disparities in alcohol use: Comparison of 2 American Indian reservation populations with national data. Am J Public Health. 2003;93:1683-5.
29. Chartier K, Caetano R. Ethnicity and health disparities in alcohol research. Alcohol Res Health. 2010;33:152-60.
30. Jiménez CE, Suescún JIS. Migraciones y conflictos. El desplazamiento interno en Colombia. Convergencia. 2008;15:195-223.
31. Gómez GM, Astaiza GM, Minayo MC. Las migraciones forzadas por la violencia: el caso de Colombia. Cienc Saude Colet. 2008;13:1649-60.
32. Montenegro RA, Stephen SC. Indigenous health in Latin America and the Caribbean. Lancet. 2006;367:1859-69.
33. Franco S, Suarez CM, Naranjo CB, et al. The effects of the armed conflict on the life and health in Colombia. Cienc Saude Colet. 2006;11:349-61.
34. King M, Smith A, Gracey M. Indigenous health part 2: the underlying causes of the health gap. Lancet. 2009;374:76-85.
35. Evans E, Spear SE, Huang Y-C, et al. Outcomes of drug and alcohol treatment programs among American Indians in California. Am J Public Health. 2006;96:889-96.