

Binge drinking and associated factors in indigenous people from Karipuna*

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Objective: to identify the prevalence of use in binge in indigenous Karipuna and to verify the association of this use with sociodemographic, clinical and behavioral variables of the sample. **Method:** this is a cross-sectional study carried out with 230 indigenous people from 12 Karipuna villages in Oiapoque. Binge use screening was obtained through the Key Question. Data was collected between May and December 2017. A priori, the frequency analysis of the variables involved in the study was carried out, following the chi-square test and logistic regression model. **Results:** it is revealed that the prevalence of use in binge was 24.8% from one to three times; 20.4% four to six times; 12.2% seven to ten times and 9.6% more than ten times. The following factors were associated: student (OR = 2.99); migration from the village of origin (OR = 2.22); condom use (OR = 2.62) and sexual intercourse after alcohol consumption (OR = 1.61). **Conclusion:** it is warned that the occasional use of alcohol risk demands consideration, as well as knowledge of the particularities of the population now investigated, in order to establish control, planning of therapeutic resources so that effective results are achieved in the planned actions and especially in those that are adopted in practice in order to prevent alcohol abuse.

Descriptors: Indigenous Population; Alcohol-Induced Disorders; Disorders Related to Substance Use; Alcohol Abuse; Binge Drinking.

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Binge drinking e fatores associados em indígenas da etnia Karipuna

Objetivo: identificar a prevalência do uso em *binge* em indígenas Karipuna e verificar a associação desse uso com variáveis sociodemográficas, clínicas e comportamentais da amostra. **Método:** trata-se de um estudo transversal realizado com 230 indígenas de 12 aldeias Karipuna em Oiapoque. Obteve-se o rastreamento do uso em *binge* por meio da Questão-Chave. Coletaram-se os dados entre maio e dezembro de 2017. Realizaram-se, a priori, a análise de frequência das variáveis envolvidas no estudo e, na sequência, o teste qui-quadrado e o modelo de regressão logística. **Resultados:** revela-se que a prevalência do uso em *binge* foi de 24,8% de uma a três vezes; de 20,4% de quatro a seis vezes; de 12,2% de sete a dez vezes e de 9,6% em mais de dez vezes. Associaram-se os seguintes fatores: estudante (OR=2,99); migração da aldeia de origem (OR=2,22); uso de preservativo (OR=2,62) e relações sexuais após o consumo de álcool (OR=1,61). **Conclusão:** alerta-se que o uso ocasional de risco de álcool demanda consideração, bem como o conhecimento das particularidades da população ora investigada, a fim de estabelecer controle, planejamento de recursos terapêuticos para que se alcancem resultados efetivos nas ações planejadas e principalmente nas que são adotadas na prática a fim de prevenir um uso abusivo de álcool.

Descritores: População Indígena; Transtornos Induzidos por Álcool; Transtornos Relacionados ao Uso de Substâncias; Abuso de Álcool; Binge Drinking.

Binge drinking y factores asociados en indígenas de la etnia Karipuna

Objetivo: identificar la prevalencia del uso de *binge* en indígenas Karipuna y verificar la asociación de este uso con las variables sociodemográficas, clínicas y comportamentales de la muestra. **Método:** se trata de un estudio transversal realizado con 230 indígenas de 12 aldeas Karipuna en Oiapoque. Se obtuvo el rastreo del uso de *binge* por medio de la pregunta clave. Se recogieron los datos entre los meses de mayo y diciembre de 2017. Se realizaron, a priori, el análisis de la frecuencia de las variables del estudio y a continuación se realizó el test chi-cuadrado y el modelo de regresión logística. **Resultados:** se revela que la prevalencia del uso de *binge* fue de 24,8% de una a tres veces; de 20,4% de cuatro a seis veces; de 12,2% de siete a diez veces y de 9,6% en más de diez veces. Se asociaron los siguientes factores: estudiante (OR=2,99); migración de la aldea de origen (OR=2,22); uso de preservativo (OR=2,62) y relaciones sexuales después de consumo de alcohol (OR=1,61). **Conclusión:** se advierte que el uso ocasional de riesgo de alcohol demanda atención, así como tomar conocimiento de las particularidades de la población que está siendo investigada, con la finalidad de establecer control y planificar recursos terapéuticos, para que sean alcanzados resultados efectivos, en las acciones planificadas y, principalmente, en aquellas que son adoptadas en la práctica, con la finalidad de prevenir el uso abusivo del alcohol.

Descriptorios: Población Indígena; Trastornos Inducidos por el Alcohol; Trastornos Relacionados con el Uso de Sustancias; Abuso de Alcohol; Beber en Exceso.

Introduction

The use of alcohol in indigenous communities is a complex phenomenon, as it requires the consideration and understanding of the different knowledge of the consumption of alcoholic beverages between groups that have cultural differences.

Specifically, alcohol is used by communities in different situations, such as: religious ceremonies (weddings, baptisms); celebrations (birthdays, Indian Day); in community work (cleaning the villages, renovating schools, working in the fields and crops) or in the male initiation ritual (occurs with boys from the age of 15, who are subjected to masculinity and resistance tests). However, this traditional use took on different proportions, making consumption often abusive and the offer of drinks the main attraction for the group's participation in activities⁽¹⁻²⁾.

In the case of traditional use, *caxixi* (drink fermented in special clay pots, made from manioc, boiled corn or fermented fruits and produced mainly by women) stands out as an alcoholic drink widely used in indigenous communities in Brazil, often associated with *Turé* (dance performed collectively, passed from generation to generation, which is a symbol of friendship between the peoples of the village)⁽³⁾.

A study that aimed to identify the microbiota present and to characterize physically and chemically the *caxixi* drink produced by the Juruna Indians in Mato Grosso showed that its alcoholic strength ranges from 10 to 11° GL (close to fermented fruit alcoholic levels) and its processing is carried out with the addition of distilled drinks and fruit juices, which led to the classification of "another fermented drink"⁽⁴⁾. Thus, a narrowing of *caxixi* with industrialized drinks is evident. Among the other drinks consumed for more than three centuries, *cachaça* has become very widespread among these peoples, probably due to interethnic contact⁽⁵⁾.

Despite an entire symbolic context and when it comes to culturality versus alcoholic beverages, these are subordinated to socialization and the symbolic value they carry, because among the indigenous people, they are not defined by the amount consumed but by the meaning and the context in which they are consumed⁽⁶⁾.

In this context, and despite the changes that have occurred in this traditional consumption, the use of alcohol cannot be thought of focusing only on negative consequences, because it is well known that, despite the damage caused, the consumption of these substances is still strongly linked to historical and cultural meanings.

The objective of this study was to consider the need to investigate occasional risky consumption, that is, binge drinking (BD) in indigenous communities in Oiapoque, more specifically in the Karipuna ethnic group, and taking into account that these findings can contribute

to the development of prevention strategies regarding problematic alcohol use, identify the prevalence of use in BD in indigenous Karipuna and verify the association of this use with sociodemographic, clinical and behavioral variables of the sample.

Method

This is an exploratory and cross-sectional study. The study was conducted in 12 Karipuna villages in the municipality of Oiapoque, in the state of Amapá.

Twelve villages (Açaizal, Ahumã, Benoá, Espírito Santo, Estrela, Cariá, Curipi, Manga, Pakapuá, Paxiubal, Santa Isabel and Taminã) authorized the realization of the research and constituted themselves as places for this research. In an informal survey carried out by the authors of the study with chiefs and indigenous leaders, it is indicated that these communities currently total 2446 inhabitants, therefore, an estimate higher than the last survey in an official body, that is, from the National Indian Foundation, which pointed out 2210 indigenous.

All individuals aged 15 years or over, who live in the 12 villages involved in the study, belonging to the municipality of Oiapoque, in the State of Amapá, in a border region with French Guiana, were invited to participate in the study between May and December 2017.

The inclusion criteria in the sample were: people who declared themselves indigenous; indigenous people living in villages; age of 15 or more of both sexes and who understood the Portuguese language. The sample excluded individuals who, at the time of collection, showed visible behavior changes, were intoxicated, who did not agree to participate in the study, refusing to answer the questionnaires by reading and signing the Free and Informed Consent Term (FICT), who did not live in the selected village or were permanently disabled (hearing or mentally disabled).

The sample calculation was estimated based on the study, cited in the research⁽⁷⁾ that investigated the prevalence of alcoholism in the Terena population in the State of Mato Grosso do Sul, in a population over 15 years old, whose prevalence was 17.6%. For sample size and proportional sample allocation, the finite population equation was used.

According to the calculations, considering the population that met the inclusion criteria, the minimum sample size - based on the assumed prevalence of the study mentioned above, with a 5% margin of error, a confidence interval of 95 - resulted in 202 individuals. Although the sample calculation was of 202 individuals, the sample consists of 230 individuals of the Karipuna ethnicity; thus, a higher number was adopted due to the possible losses that could occur during data collection.

The simple random selection sample was used to constitute the sample. For data collection, the researchers

participated in assemblies with part of the community, involved chiefs and competent bodies for the liberation of the field. The team was previously trained to ensure greater reliability of the data, as well as a pilot test was carried out in order to adapt to the reality of the indigenous community involved together with students of the same ethnicity who attend the Oiapoque university campus.

A questionnaire with clinical, sociodemographic and behavioral characteristics was applied and, for the identification of use in BD, the Key Question (KQ).

The KQ was directed to seek the number of times of alcohol ingested by the indigenous people in the last year. KQ was first proposed in the late 1990s in a study⁽⁸⁾ which had the basic question: "Have you ever had drinking problem?". In direct translation, it would be: "Have you ever had problems with drinking?", Translated and validated in a study⁽⁹⁾ who called the Single Question as the Key Question and explained that it presented good agreement between the judges regarding the content and with psychometric performance.

It also brought, in the study, a survey of several researches that were made and modified the question for better understanding and understanding; it was also commented that studies have already been carried out to test sensitivity, which is 80%, and specificity, 74%, with no significant difference in parameter between sex and ethnicity. It was also added in this study that KQ performed well in the English version and showed satisfactory results in the Portuguese version, being characterized as a universal instrument.

It is a practical, low-cost instrument that is suitable for all types of population, therefore, a good strategy for screening risk / harmful use in primary care services⁽¹⁰⁾.

Data analysis was performed using Excel software in order to allow checking of typing errors and due corrections. The statistical analysis was obtained using the SPSS statistical software, version 20.0. Initially, the frequency analysis of socio-demographic clinical-behavioral data was made, presenting them in the form of tables. In a second step, the bivariate / multivariate analysis was performed, with the chi-square test (p -value of significance 0.05), to verify the association between the variables and the patterns of alcohol consumption. Subsequently, variables were selected to compose the logistic regression model. The choice of variables to compose the logistic regression model occurred with the prefixing of the p -value at a maximum of 0.20. Odds Ratio (OR) values were obtained, as well as a 95% Confidence Interval (CI) for the evaluation of the odds ratio between the variables selected in the logistic regression.

This research was carried out in compliance with the Resolution of the National Health Council / NHC Number 466/2012, which establishes the Regulatory Guidelines and Norms for Research Involving Human Beings⁽¹¹⁾, and

Resolution 304/00, regarding research with indigenous populations⁽¹²⁾. Therefore, it followed all the necessary bureaucratic procedures involving human beings and indigenous lands, having been approved with Opinion No. 1.872.185.

Results

The sample was predominantly characterized as male (51.3%), aged 16 to 30 years (46.5%), in stable / friendly union (55.7%), by Catholics (71.1 %), with incomplete primary education (28.3%), active workers (45.9%) and without income (53.5%).

In the case of migratory processes, 79.9% of respondents stated that they have already migrated from the village of origin; 76.6% lived in another indigenous territory in the North and 36.2% reported a change to family formation.

The sample showed that 19% have pressure changes, 3.1%, diabetes, 5.4%, depression, 13.5% thought about suicide, 9.5% attempted suicide, 9.6% do not inform if they have a steady partner, 48.6% do not use condoms, 0.5% has already been diagnosed with a sexually transmitted infection; all denied HIV / AIDS and 35.6% affirmed sexual relations after consumption of alcohol and other drugs, emphasizing that these data were based on self-reports.

In characterizing alcohol consumption, 70% said they use alcoholic beverages; beer stands out as the most consumed beverage (51.6%); age of onset of use from nine to 20 years (90.1%); place of first contact with drinking were social parties (27.3%); 70.8% stated that the first contact places were in the village itself; the place with the highest consumption of alcoholic beverages (32.3%) of the interviewees was the home, with 90.1% claiming to be in the village itself; when asked about the place where they used to buy / purchase alcoholic beverages, 59% mentioned the markets and 62.7% said this was the place with the easiest access to purchase alcohol; 59% of those surveyed said that drinking never caused them any problems; 49.7% considered that friendship groups were the main reason that led them to drink; 88.3% said they have a family member who consumes alcoholic beverages and the mother is the most mentioned member (41.4%). When asked if they consider the use of alcoholic beverages to be a problem in the community, 85.7% said yes, with the most cited problem (70.6%) being behavioral changes.

When using KQ to find out how many times men had drunk five or more drinks and women four or more drinks on the same occasion, that is, use in binge, in the last year, the following data were found: 33%, not once (remembering that, in this percentage, there are abstinent people, as well as people of occasional use / low risk); 24.8%, from one to three times; 20.4%, four to six times;

12.2%, seven to ten times and 9.6% more than ten times, that is, who use it in binge, exceeding the limit of safe doses and adopting a risky use, as shown in Figure 1.

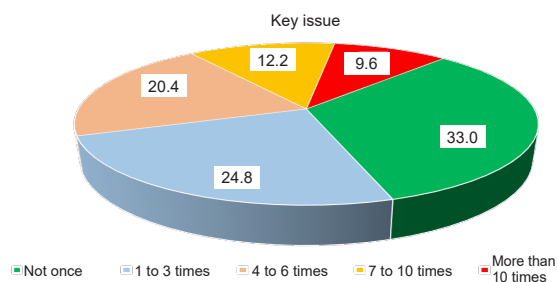


Figure 1 - Use in binge (Key Question - KQ)

The association between the variables studied through the bivariate analysis did not show significance between the KQ and the variables: age; sex; marital status; religion; education and income. Therefore, these were not incorporated into multiple logistic regression models.

The occupation and migration variables of the village of origin are statistically significant, with p-value of 0.002 and 0.03, respectively, as shown in Table 1.

Table 1 – Final model of bivariate analysis of KQ* and sociodemographic, clinical and behavioral characteristics (n = 230). Oiapoque, Amapá, Brazil, 2017

Variable	Yes		No		p-value
	N	%	N	%	
Occupation					
Student	38	58.5	27	41.5	0.002
Active	26	29.9	64	71.1	
None	14	45.2	17	54.8	
Retired	3	30.0	7	70.0	
Migration from the village of origin					
Yes	130	71.0	53	29.0	0.03
No, lives there since they were born	24	52.2	22	47.8	
Use of condom					
Yes	84	77.0	25	22.9	<0.001
No	59	57.2	44	42.7	
Sexual intercourse after drinking alcohol or other drugs					
Yes	55	71.4	22	28.5	0.04
No	92	66.1	47	33.8	

*KQ = Key Question

The variables pressure change, diabetes, depression, Sexually Transmitted Infections - STI, HIV / AIDS, thinking about suicide, attempting suicide and having a steady partner did not present a statistically significant association with the pattern of use. While condom use ($p < 0.001$) and having sex after consuming psychoactive substances ($p = 0.04$) gave a significant association, as can be seen in Table 1.

Table 2 showed that being a student is 2.99 times more likely to use alcohol in binge compared to being

retired. Indigenous people who migrated from the village of origin are 2.22 more likely to consume binge when compared to individuals who did not migrate. And those people who use condoms (OR = 2.62) and have sex after drinking alcohol and other drugs (OR = 1.61) have an increased chance of consuming alcoholic binge drinks.

Table 2 – Logistic regression, KQ* analysis according to the significant variables in the study (n = 230). Oiapoque, Amapá, Brazil, 2017

Variables	OR [†]	CI* (95%)		P
		Inferior	Superior	
Occupation				
Student	2.99	1.51	5.96	0.02
Active	1.55	0.25	4.39	0.00
None	1.70	0.72	4.02	0.22
Retired	1	-	-	-
Migration from the village of origin				
Yes	2.22			
No, lives there since they were born	1	-	-	-
Use of condom				
Yes	2.62	1.47	4.65	0.001
No	1	-	-	-
Sexual intercourse after drinking alcohol or other drugs				
Yes	1.61	0.89	2.92	0.11
No	1	-	-	-

KQ = Key Question; [†]OR = Odds Ratio; ^{}CI = Confidence Interval

Discussion

The data found in the population show greater use of alcoholic beverages by men, among adolescents and people in early adulthood, who have a companion/partner, Catholics, with incomplete elementary education, active workers and without formal income.

According to a survey on patterns of alcohol and other drug use among indigenous peoples⁽¹³⁾, the proportion of those who drink is higher among men (52.7%) than among women (24.6%). Regarding the age range, the same survey showed that as the age increases, the proportion of users decreases. Thus, in the 18 to 34 age group, there is the population that most consumes alcohol. It is also noted that users prefer to consume alcohol in the company of friends and that women prefer to drink in the company of their husband or partner. The data from this survey corroborate the variables gender, age and marital status in this study.

Individuals who practice the Catholic religion are the most likely to use alcoholic beverages, something that may be associated with the non-prohibition of consumption of such substances by Catholic doctrine. A relevant fact is the entry of the evangelical (Protestant) religion in the villages now investigated, since many of the interviewed indigenous people claimed to have reduced or even stopped their consumption of these substances due to their new religious beliefs.

A study⁽¹⁾ showed that the practice of religion is a protective factor for the reduction of exaggerated consumption and pointed out the influence of the church as a measure to reduce the consumption of alcoholic beverages, as practitioners adopted the posture of "substitution of alcoholic beverages for accepting the word of God" and assumed behaviors in which drinking is not part of everyday life. Individuals who have undergone religious conversion should follow strict rules of conduct, including a ban on the use of alcoholic beverages⁽¹⁴⁾.

With regard to people with low schooling and no income, this variable is directly related to the lack of permanent employment, as the demand for professional qualification in the current job market is notorious, something that contributes to the fact that many indigenous people have, in agriculture, the axis of their livelihood. Still in this sense, currently, the departure of indigenous people from their villages in search of education is constant and much of this is due to the arrival of the public university in the city of Oiapoque-AP. The university provided them with the opportunity to gain technical qualification at the university level, always striving to improve quality of life and socioeconomic status. However, the migratory movement in search of university studies ends up placing indigenous students among the public that most consumes alcoholic beverages.

In the case of people who declared themselves without income, many of them are active workers, that is, they exercise some activity, but they are not necessarily remunerated, as they are subsistence farmers. This fact makes us reflect on another issue, because, due to the profession exercised, many need to travel to the city to guarantee the sale and / or exchange of the products grown and produced from the work of the farm, which facilitates contact with alcoholic beverages and other drugs, in addition to adopting the habits of the "white man" culture.

The purchase of drinks can be made with money or as a bargaining chip for fish, flour and foodstuffs from planting. People who have paid work are those who most easily get the substance; thus, they both consume and share alcoholic beverages with others, generating a large volume of reciprocal relationships that guide the indigenous way of life⁽³⁾.

All of these aspects have influenced the model of the migratory process, with a consequent strengthening of relations between indigenous and non-indigenous people, whether due to the easy access to villages or even for the various reasons that indigenous people have to go to the city, something that is corroborated by the data of the migratory processes found in the sample, which attest that 79.9% of the surveyed indigenous people stated that they had already left their original village. This information disagrees with the study⁽¹⁵⁾ in which the

majority of indigenous people reported never having left the indigenous land.

This ends up contributing for the insertion and use of alcoholic beverages to be easily accepted among them, and alcohol becomes an object of easy consumption and socio-cultural interaction, something that, little by little, has contributed to the loss of cultural characteristics of these indigenous people.

In this regard, the differentiated use of alcoholic beverages is the result of changes that occurred within the villages, such as: contact with the white man, called interethnic contact; increased circulation of beverages in the villages; changes in traditional use and socialization and, finally, the advent of industrialized drinks. The use of such drinks has become increasingly precocious, in addition to the notorious substitution of caxixi for spirits, both in situations of collective consumption, which is considered traditional, as well as its inclusion in the festive dates of the indigenous calendar due to the influence of white culture⁽³⁾.

A previous study corroborates with research⁽¹⁶⁾ carried out among the indigenous Potiguara, who demonstrated that the use of alcohol is strictly related to fun, festivities and indigenous rituals, highlighting cachaça as the most consumed drink due to its easy access and low cost value.

Regarding clinical and behavioral characteristics, among the interviewees who consume alcoholic beverages, the majority denied changes in blood pressure, diabetes, depression, suicidal thoughts and attempts, sexually transmitted infections, HIV/AIDS, sexual relations after consumption of psychoactive substances, as well how they claimed to have a steady partner and use condoms during sexual intercourse.

The low percentage found among these pathologies may be mainly associated with the lack of knowledge of such diseases or simply because they have said they do not have such diseases or have refused to respond. During data collection, it was observed that these communities need more investigation and reinforcement of preventive actions in order to guarantee greater sensitivity of the instruments applied when researching such diseases in indigenous populations and, in this way, to obtain reliable responses that support the survey epidemiological.

All of this is also associated with the fact that a significant portion of the people interviewed state that they never underwent specific tests in search of such diagnoses, and the results are considered from the reported data, which may not reproduce the current reality of this population. This can happen due to the embarrassment on the part of the majority of the indigenous people when answering questions of an intimate nature, especially with regard to the sexual act, something that interfered in the answers and led to an underestimation of the data found.

Diseases transmitted by sexual intercourse, including HIV / AIDS infection, are poorly known and reported in Brazil. The insufficiency of information demonstrates that the indigenous population is discovered in relation to health and research with this public prioritizes ethnic and cultural issues⁽¹⁷⁾.

Still in this context, there was a significant number of respondents who claimed to have a steady partner and use condoms, which goes against the literature, which points out the situations of greater vulnerability related to the consumption of alcoholic beverages in indigenous communities, the non-use of condoms and increase in community members attending nearby cities, in addition to new social relationships⁽¹⁸⁾.

In addition to the other clinical illnesses and behavioral measures that were readily denied by the majority of respondents, there is an increase in disorders related to the use of alcoholic beverages among indigenous people, such as accidents, fights, falls, being run over and clinical illnesses - cirrhosis, diabetes, high blood pressure, depression, stress, among others. In the case of external factors, there are cases of homicide, suicide, sexual violence, incest, etc⁽¹⁹⁾.

Therefore, alcohol abuse is a reality that has numerous harmful consequences for the indigenous population⁽²⁰⁾, a fact that confirms the need for a thorough investigation of such problems in this population.

The rates of suicidal ideas and attempts proved to be considerable, as well as the percentages of depression. The study showed a range of 13.5% of people who thought about suicide, 9.5% have already attempted suicide and 5.4% stated depression, showing the need for greater attention to this phenomenon, as a study⁽²¹⁾ who sought to provide an overview of suicide rates among indigenous people in Brazil found that this act is very prevalent in several populations. The authors showed that, among the Ticuna, a rate of 28% is reached; among the Caiowás, a rate 40 times higher than the average of the Brazilian population and, among the Sorowahá, 1922 cases of suicide are estimated for every 100 thousand inhabitants.

Although, in this sense, the data in this study are below the average found in the literature, there is a percentage that needs better investigation and observation by health professionals and indigenous leaders in order to avoid further damage in the future, because research⁽²²⁾ showed that depressive symptoms are closely related to psychosocial problems among indigenous peoples and that assessment is of paramount importance to avoid possible harm.

When considering the results of the KQ, which assesses the use of risk on isolated occasions, that is, the most adequate to the reality of the indigenous population, more than half of men and women (67%) had consumption higher than the number of "safe doses"

- five for men and four for women on a single occasion - showing that 42.2% of the interviewees made use of risk (drinking in a binge) more than four times a year, and the predictors for this pattern of use were being students (OR = 2.99), having migrated from the village of origin (OR = 2.22), condom use (OR = 2.62) and RSACA (OR = 1.61).

BD, or episodic heavy drinking, is a pattern of risky consumption that has aroused international interest and that has only recently begun to be investigated in Brazil, still little studied among the Brazilian population⁽²³⁾.

In 2010, a survey of high school students from the country's 27 state capitals revealed a 32% prevalence of binge use, higher in adolescents with better purchasing power and in the North and Northeast regions of Brazil⁽²⁴⁾. The first national survey of alcohol use patterns in Brazil, conducted in 2005-2006, identified a prevalence of BD in the year prior to the survey of 28% in adults⁽²⁵⁾. In another survey, which investigated adult men living on the street, it was found that 46.94% used binge⁽²⁶⁾.

Even though it is the first time in a study that applies KC to indigenous populations, it was evident that the percentages of results found in this population are higher than those that were applied to the general population.

Due to the absence of instruments adapted to indigenous culture, instruments based on the biomedical model applied to the general population were used, but the socio-cultural aspects of use were taken into account in order to guarantee greater accuracy in the results.

The lack of an adequate screening instrument for these traditional populations - as can be clearly evidenced in a study⁽²⁷⁾, who used Cut down, Annoyed, Guilty, Eyer-opener (CAGE) as a screening tool - leads to the conclusion that this is inadequate, as it is a universal procedure used to identify addiction and it is necessary to understand social situations, as these conditions are necessary to adapt the respondents' answers. In the population of Alto Rio Negro, people who have violent behavior are considered "drinking problems", those who are bad examples for their children and for the community, those who forget their actions after ingesting alcoholic substances, as well as those who have compromised work activities.

Thus, the measurement of alcohol and other drugs is relevant and shows the need for a greater variety of reliable instruments for use in healthcare practice and in the research field, as these facilitate the detection of risky behaviors, abuse, among other aspects, in addition to guide prevention and treatment and intervention planning strategies. However, it is necessary to adopt standardized cultural adaptation references, which consider the biopsychosocial context of the problematic use⁽²⁸⁾.

In relation to the limitations of this study, we can list the few refusals in the selected sample and, when the theme of the study was explained and because they

are intimate questions, a cautious and enlightening approach was used, but even so, there was rejection by some indigenous people. Then, in the sequence, another participant from that family nucleus who had been drawn was selected. There was also a memory bias, when questioned about alcohol consumption in the last year, and there may have been a loss of reliable answers by some respondents.

The implications of this study for care practice occur in the sense of contributing so that agencies and entities dealing with indigenous protection, governmental or not, can develop strategies and policies aimed at improving the health of this vulnerable population, specifically with regard to the use of psychoactive substances, something that will provide an improvement in the quality of indigenous life and optimization of collective living in the villages investigated by this work.

Conclusion

In view of this situation, the sociodemographic, clinical and behavioral aspects and the occasional use of alcohol risk demand consideration, as well as knowledge of the particularities of the population now investigated, in order to establish control, planning of therapeutic resources, so that effective results are achieved in the planned actions and mainly in those that are adopted in practice, in order to prevent an abusive use of alcohol.

From the data found, the importance of improving the area of additions within indigenous communities is emphasized, as it is a little explored theme and needs epidemiological data to guide future actions and measures based on the socio-cultural context experienced within each indigenous ethnicity, all with a view to preventing or even minimizing the damage caused by the use of alcohol and other drugs.

The data of the researched sample are relevant for the visibility of the theme in view of the scarcity of studies in the area, as well as to encourage and contribute to the development of other researches with the Karipuna indigenous, which would provide the advance of scientific works with the most varied ethnic groups existing indigenous peoples, this being the greatest potential of this study.

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References

1. Ghiggi Júnior A, Langdon EJ. Reflections on intervention strategies with respect to the process of alcoholization and self-care practices among Kaingang indigenous people in Santa Catarina State, Brazil. *Cad Saude Publica*. 2014 Jun;30(6):1250-8. doi: 10.1590/0102-311x00108613
2. Oliveira M. Alcoolismo entre os Kaingáng: do sagrado e lúdico à dependência. In: *Anais do Seminário sobre Alcoolismo e Vulnerabilidade às DST/Aids entre os Povos Indígenas da Macrorregião Sul, Sudeste e Mata Grosso do Sul*; 2001. Brasília. Brasília: Ministério da Saúde; 2001. p. 127-48. [cited 2018 Aug 5]. Available from: http://bvsm.s.saude.gov.br/bvs/publicacoes/021anais_seminario.pdf
3. Souza MLP, Garnelo L. Quando, como e o que se bebe: o processo de alcoolização entre populações indígenas do alto Rio Negro, Brasil. *Cad. Saude Publica*. 2007 July;23(7):1640-48. doi: 10.1590/S0102-311X2007000700015
4. Santos CCAA. Identificação da microbiota e caracterização físico-química da bebida fermentada caxiri produzida pelo povo Juruna (Yudjá), Mato Grosso, Brasil [dissertação]. Lavras: Microbiologia Agrícola, Universidade Federal de Lavras; 2010. [cited 2018 Aug 5]. Available from: <http://repositorio.ufla.br/jspui/handle/1/4765>
5. Souza MLP, Deslandes SF, Garnelo L. Modos de vida e modos de beber de jovens indígenas em um contexto de transformações. *Cienc Saude Colet*. 2010;15(3):709-16. doi: 10.1590/S1413-81232010000300013
6. Dias LF. Uso e abusos de bebidas alcólicas segundo os povos indígenas do Uaçá. In: Labate BC, Goulart SL, Fiore M, MacRae M, Carneiro H, organizadores. *Drogas e cultura: novas perspectivas*. Salvador: EDUFBA; 2008. p. 199-217. [cited 2018 Nov 15]. Available from: <https://repositorio.ufba.br/ri/bitstream/ufba/192/1/Drogas%20e%20Cultura.pdf>
7. Souza JA, Aguiar JI. O alcoolismo em população Terena no Estado do Mato Grosso do Sul: impacto da sociedade envolvente. In: *Anais do Seminário sobre Alcoolismo e Vulnerabilidade às DST/Aids entre os Povos Indígenas da Macrorregião Sul, Sudeste e Mata Grosso do Sul*; 2001. Brasília. Brasília: Ministério da Saúde; 2001. p. 149-68. [cited 2018 Aug 5]. Available from: http://bvsm.s.saude.gov.br/bvs/publicacoes/021anais_seminario.pdf
8. Fleming MF, Barry KL, Manwell LB, Johnson K, London R. Brief physician advice for problem alcohol drinkers: a randomized controlled trial in community-based primary care practices. *JAMA [Internet]*. 1997 Apr [cited 2018 Aug 5]; 277(13):1039-45. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/9091691>
9. Maciel MED, Vargas D. Cultural adaptation and content validation of the Single-Question for screening alcohol abuse. *Rev Esc Enferm USP*. 2017:e03292. doi: 10.1590/S1980-220X2016048703292
10. Mitchell AJ, Brid V, Rizzo M, Hussain S, Meader N. Accuracy of one or two simple questions to identify alcohol-use disorder in primary care: a meta-analysis. *Br J Gen Pract*. 2014;64(624):408-8. doi: 10.3399/bjgp14X680497

11. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução nº466, de 12 de dezembro de 2012. Aprova as diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. Brasília: MS; 2012. [cited 2018 Aug 5]. Available from: <https://conselho.saude.gov.br/resolucoes/2012/Reso466.pdf>
12. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução n.º 304/00 de 9 de agosto de 2000. Aprova as Normas para Pesquisas Envolvendo Seres Humanos – Área de Povos Indígenas. Brasília: MS; 2000. [cited 2018 Aug 5]. Available from: https://unip.br/presencial/pesquisa/comite/pesquisa_serres_humanos/r_304_00_090800.aspx
13. Brasil. Presidência da República. Secretaria Nacional de Políticas sobre Drogas. Relatório brasileiro sobre drogas. Brasília: SENAD; 2009. [cited 2018 Aug 5]. Available from: <https://www.justica.gov.br/central-de-conteudo/politicas-sobre-drogas/relatorios-politicas-sobre-drogas/relatoriobrasileirosobredrogas-2010.pdf>
14. Coimbra Júnior CEA, Santos RV, Escobar AL, organizadores. Epidemiologia e saúde dos indígenas no Brasil. Rio de Janeiro: Fiocruz; 2003. [cited 2018 Aug 5]. Available from: <http://books.scielo.org/id/bsmtd/pdf/coimbra-9788575412619.pdf>
15. Medeiros ACLV. O consumo de bebida alcoólica e o trabalho no povo indígena Xukuru do Ororubá [dissertação]. Recife: Centro de Pesquisa Aggeu Magalhães, Fundação Oswaldo Cruz; 2011. [cited 2018 Aug 5]. Available from: <https://www.arca.fiocruz.br/handle/icict/13298>
16. Oliveira RCC, Silva AO, Maciel SC, Melo JRF. Situação de vida, saúde e doença da população indígena Potiguara. Rev Min Enferm [Internet]. 2012 Jan-Mar; [cited 2018 Aug 5]. 16(1):81-90. Available from: <http://www.reme.org.br/exportar-pdf/504/v16n1a12.pdf>
17. Carvalho NS, Cho R, Flores LP. DST em populações indígenas no Brasil – análise crítica e revisão de literatura. J Bras Doenç Sex Trans. 2011;23(3):142-5. doi: 10.5533/2177-8264-201123307
18. Santos VL, Díaz Bermúdez XP, Toledo LM, Cruz MM, Moreira E. Reflexões sobre as políticas de controle das DST e Aids na população indígena. Rev Tempus [Internet]. 2010 [cited 2018 Aug 5];4(2):89-100. Available from: https://repositorio.unb.br/bitstream/10482/23024/1/ARTIGO_ReflexoesPolíticas.pdf
19. Souza JA, Oliveira M, Kohatsu M. O uso de bebidas alcólicas nas sociedades indígenas: algumas reflexões sobre os Kaingáng da bacia do rio Tibagi, Paraná. Coimbra Júnior CEA, Santos RV, Escobar AL, organizadores. Epidemiologia e saúde dos indígenas no Brasil. Rio de Janeiro: Fiocruz; 2003. p. 149-68. [cited 2018 Aug 5]. Available from: <http://books.scielo.org/id/bsmtd/pdf/coimbra-9788575412619.pdf>
20. Melo JRFD, Maciel SC, Oliveira RCC, Silva AO. Implicações do uso do álcool na comunidade indígena Potiguara. Physis. 2011;21(1):319-33. doi: 10.1590/S0103-73312011000100019
21. Oliveira CS, Lotufo Neto F. Suicídio entre povos indígenas: um panorama estatístico brasileiro. Rev Psiquiatr Clín [Internet]. 2003 [cited 2018 Oct 24];30(1):4-10. Available from: <http://www.scielo.br/pdf/rpc/v30n1/20583.pdf>
22. Armenta BE, Sittner Hartshorn KJ, Whitbeck LB, Crawford DM, Hoyt DR. A longitudinal examination of the measurement properties and predictive utility of the Center for Epidemiologic Studies Depression Scale among North American Indigenous adolescents. Psychol Assess. 2014;26(4):1347-55. doi: 10.1037/a0037608
23. Sanchez ZM. A prática de binge drinking entre jovens e o papel das promoções de bebidas alcólicas: uma questão de saúde pública. Epidemiol Serv Saude. 2017;26(1):195-8. doi: 10.5123/S1679-49742017000100020
24. Sanchez ZM, Locatelli DP, Noto AR, Martins SS. Binge drinking among Brazilian students: a gradient of association with socioeconomic status in five geo-economic regions. Drug Alcohol Depend. 2013;127(1-3):87-93. doi: 10.1016/j.drugalcdep.2012.06.018
25. Laranjeira R, Pinsky I, Sanches M, Zaleski M, Caetano R. Padrão de uso de álcool em brasileiros adultos. Rev Bras Psiquiatr. 2010;32(3):231-41. doi: 10.1590/S1516-44462009005000012
26. Botti NCL, Castro NCL, Silva AK, Silva MF, Oliveira LC, Castro ACHOA, et al. Padrão de uso de álcool entre homens adultos em situação de rua de Belo Horizonte. SMAD, Rev Eletr Saúde Mental Álcool Drogas [Internet]. 2010 [cited 2018 Aug 5];6(n. esp.):536-55. Available from: <http://pepsic.bvsalud.org/pdf/smad/v6nspe/10.pdf>
27. Souza MLP, Schweickart JC, Garnelo L. O processo de alcoolização em populações indígenas do Alto Rio Negro e as limitações do CAGE como instrumento de screening para dependência ao álcool. Rev Psiquiatr. Clín. 2007;34(2):90-6. doi: 10.1590/S0101-60832007000200005
28. Claro HG, Oliveira MAF, Almeida MM, Vargas D, Plaglione HB. Adaptação cultural de instrumentos de coleta de dados para mensuração em álcool e drogas. SMAD, Rev Elet Saúde Mental Álcool Drog [Internet]. 2011 [cited 2018 Aug 5];7(2):71-7. Available from: <http://pepsic.bvsalud.org/pdf/smad/v7n2/04.pdf>

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