

Original Article

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Socio-demographic characteristics of alcohol abusers in a rural Ijaw community in Bayelsa State, South-South Nigeria

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Abstract

Background: Causal relationship has been established between alcohol and more than 60 types of disease and injury. Despite this, alcohol is still widely consumed in several communities in Nigeria, and sometimes considered a health tonic. This study described the pattern, prevalence, and factors associated with alcohol abuse in a typical Ijaw community, where alcohol is produced and consumed in large quantities.

Materials and Methods: The study was carried out in Okoloba, a rural community in Bayelsa State, South-South Nigeria using an analytical cross-sectional study design. The data were collected from members of the community aged 16 to 65 years, using the Alcohol Use Disorders Identification Test questionnaire and clinical examination for hepatomegaly, tongue tremor, and hand tremor.

Results: A total of 322 subjects, comprising 166 men and 156 women were studied. They had an average age of 41.4 ± 2.5 years, were mostly farmers (43.17%), married (66.15%), and had at most primary school education (62.42%). More than 90% of the subjects took alcohol in the preceding year, with more of them (43%) preferring the locally produced drinks. About 33% of the subjects had harmful drinking, while 12.73% had alcohol dependence problem. There is no significant age difference between the alcohol abusers and abstainers/social drinkers ($P > 0.05$), but alcohol abusers were significantly more likely to be males ($P < 0.001$), in polygamous marriages ($P < 0.00001$), had lower educational status ($P < 0.0001$), likely to be practitioners of the traditional religion ($P < 0.0001$), and more likely to be engaged in palm wine tapping.

Conclusion: Alcohol is widely consumed in the community, but the prevalence of abuse was moderate, mainly due to cultural restrictions. Sales restrictions might be needed as the drinking habits of members of the community change with urbanization.

Keywords: Alcohol abuse, AUDIT questionnaire, Ijaw, Nigeria, rural community

Résumé

Background: Relation causale a été établie entre l'alcool et plus de 60 types de maladies et dommage. Malgré cela, l'alcool est encore largement consommée dans plusieurs communautés au Nigéria et parfois considérée comme un tonique de santé. Cette étude décrit le modèle, la prévalence et les facteurs liés à l'abus d'alcool dans un typique Communauté Ijaw, où l'alcool est produit et consommé en grandes quantités.

Matériaux et procédés: L'étude a été réalisée en Okoloba, une communauté rurale en état de Bayelsa, Sud-Sud. Nigéria en utilisant un modèle d'étude transversale analytique. Les données ont été recueillies de membres de la communauté âgés de 16 à 65 ans, à l'aide du questionnaire de Test alcool utilisation troubles Identifi cation et l'examen clinique pour hépatomégalie, langue maternelle tremblements et tremblements de la main.

Résultats: Un total de 322 sujets, comprenant les 166 hommes et 156 femmes ont été étudiés. Ils avaient un âge

moyen de $41,4 \pm 2,5$ ans, étaient principalement des agriculteurs (43.17%), épouse (66.15%) et avait tout au plus l'enseignement de l'école primaire (62.42%). Plus de 90% des sujets a pris de l'alcool dans l'année précédente, avec plus d'eux (43%) préférant la localement boissons produites. Environ 33% des sujets avaient boire nuisibles, tandis que 12,73% avaient des problèmes de dépendance à l'alcool. Il n'y a aucune signifi ne peut pas l'âge différence entre les buveurs et buveurs abstinents et sociales ($P > 0,05$), mais buveurs étaient signifi cativement plus susceptibles d'être des hommes ($P < 0,001$), dans les mariages polygames ($P < 0,00001$), avait abaisser le statut scolaire ($P < 0,0001$), susceptibles d'être des praticiens de la religion traditionnelle ($P < 0,0001$) et probablement plus engagées dans des écoutes de vin de palme.

Conclusion: L'alcool est largement consommée dans la communauté, mais la prévalence de l'abus a été modérée, principalement en raison les restrictions culturelles. Restrictions ventes pourraient être nécessaire que les habitudes de consommation des membres de la communauté changer avec l'urbanisation.

Mots clés: L'abus d'alcool, le questionnaire de la vérification, Ijaw, Nigéria, communauté rurale

Introduction

Alcohol is the oldest and most widely used intoxicating substance known to man. Archaeological evidence reveals that the use of alcoholic beverages dates back to the earliest stages of man's development.^[1] Among the Ijaws of the Niger delta, Nigeria, alcoholic beverages are used for various social and religious activities; they are used to entertain visitors, at engagement and marriage ceremonies, to signify the settlement of a quarrel, and at funerals, among other social and religious engagements. They are even used for personal hygiene, as the locally distilled gin is commonly used to cleanse the mouth at dawn.

However, despite the widespread use, alcohol-related problems are not commonly recognized in the Ijaw society. In fact, alcohol is believed to be a health tonic, and often recommended as an aphrodisiac, and for the treatment of cold. But findings in similar societies with widespread alcohol use seem to suggest otherwise.^[1] According to the 2002 World Health Report, alcohol worldwide is responsible 3.2% of all deaths and 4% of the global disease burden measured in Disability Adjusted Life Years, which is higher than the 3.7% attributed to poor water and sanitation, and compares well with the 4.1% attributed to tobacco use.^[2] Overall, there are causal relationships between alcohol consumption and more than 60 types of disease and injury.^[3] In Nigeria, a study carried out at the Neuropsychiatric Hospital Aro, Abeokuta Western Nigeria, showed that alcohol, either taken singly or used in combination with other drugs, was associated with 40.3% of all admissions in the hospital.^[4]

Most of the health problems associated with alcohol is linked to its abuse. The International Classification of Diseases (ICD-10) defines alcohol use as ingestion of alcohol in any form, and alcohol abuse as all forms of risk and malfunction associated with hazardous alcohol drinking.^[5] In the light of

these definitions and the potential health hazards associated with widespread alcohol use, it would be imperative to find out the situation in an Ijaw community, where alcohol use is part of social, religious, and traditional life. This study describes the pattern, prevalence, and factors associated with alcohol misuse in Okoloba, a small semi-urban community in Bayelsa State, South-South Nigeria. It is hoped that the findings of this study would give a clearer picture of alcohol use in a representative Ijaw community, give information that can facilitate the early diagnosis and treatment of alcohol-related problems, and produce a better appreciation of the problem posed by alcohol misuse in the community.

Materials and Methods

The study was carried out in Okoloba, a rural community in the Kolokuma/Opokuma Local Government Council Area of Bayelsa State, with a population of about 3 500 people (projected with the 2006 national census), and made up predominantly of people of the Ijaw ethnic group. Most people in the community were farmers and fisherfolks. Tapping of palm wine and the distillation of local gin from the palm wine were also major occupational engagements of members of the Okoloba community. The community was chosen for the study because it was peaceful and accessible, and was a typical Ijaw community in terms of demographics, socioeconomics, and religion. As at the time of the study, the local gin 'Ogogoro' which contains 40 to 60% alcohol was freely available, and one shot (40 ml) of it sold for ten Naira (N10.00) (about \$0.16).

An analytical cross-sectional study design was used, with the data collected using a structured interviewer-administered questionnaire and clinical examination of the respondents. The study was conducted among adults in the community between the ages of 16 and 65 years. The minimum age of 16 years was chosen because it is the minimum

legal age for drinking in the most States in South-South Nigeria, while the maximum age limit of 65 years was chosen because the sensitivity of the Alcohol Use Disorders Identification Test (AUDIT) questionnaire has been found to be lower in respondents above the age of 65 years.^[6] However, eligible subjects considered too ill to participate in the study were excluded.

The study was designed to detect a 5% difference in the prevalence of alcohol abuse, with an alpha error of 5%, acceptable beta error of 20%, and a statistical power of 80%; and using the prevalence of 11.8% obtained in a similar study carried out in Jos, North-Central Nigeria,^[7] the minimum sample size was thus determined and put at 159. The subjects were then systematically chosen from every other house in the community, starting from the house of the community leader. All eligible adults in the selected houses who gave their consent were studied in their houses.

The data were collected by SB (the first author) and trained assistants between February and May 2006. The questionnaire was interviewer administered, with the questions mostly asked in Ijaw language. Care was taken to ensure a correct translation, even though studies had revealed that the internal consistency of the AUDIT questionnaire is not affected much by changes in wording and ordering of questions.^[8]

The questionnaire was adapted from the AUDIT screening Questions of World Health Organization,^[9] and used to collect information on the socio-demographic characteristics of the respondents, hazardous alcohol use (frequency and quantity of alcohol intake), harmful alcohol use (guilt after drinking, blackouts, alcohol-related injuries, and others concerned about their drinking), and alcohol dependence (impaired control over drinking, increased salience, and morning drinking). The 'Audit' screening questionnaire has been found in many studies to be a valid and convenient instrument for screening alcohol problems in primary care settings.^[9] It has also been found to have 92% sensitivity and 94% specificity in the identification of persons with 'harmful alcohol consumption.'^[10]

Before the administration of the questionnaire, a clarification was made of the common beverages in the community that are alcoholic, and what constitutes a standard drink. The alcohol taken as part of native herbal preparation was also considered. A standard drink was defined as half bottle of beer (330 ml of 5% ethanol), two and half glasses of fresh palm wine (500 ml of 3% ethanol), and one shot of

the local gin (ogogoro) (40 ml of 40% ethanol), all containing approximately 13 g of ethanol.

The clinical examinations were carried out to detect the clinical signs of chronic harmful alcohol use.^[9] They consisted of the examination of hands and tongue for fine tremor and abdominal palpation for hepatomegaly. Hand tremor was estimated with the arms extended anteriorly, half bent at the elbows, and with the hands rotated toward the midline, whereas tongue tremor was evaluated with the tongue protruding a short distance beyond the lips. The abdominal palpation for hepatomegaly was carried out according to the standard method. A palpable liver was considered significant.

The collected data were cleaned and entered into a database using EPI-INFO version 2002. Analysis and presentation of results were done with EPI-INFO version 2002, Microsoft word, and manually. Summary measures were calculated for each outcome of interest. The AUDIT instrument consists of ten questions, with a maximum possible score of 40. The score of the subjects in the questionnaire were used to classify them according to the 10th Edition of the ICD.^[5] The subjects were thus classified as nondrinkers, moderate/social drinkers (score of less than 8), and alcohol abusers (those with scores of 8 and above), while those that scored 20 and above were classified as having alcohol dependence problem.

The approval to undertake the study was sought and obtained from the Ethical Review Committee of the University of Port Harcourt Teaching Hospital, Port Harcourt, as well as from the Chiefs of the community. Informed consent was also sought and received from all the study participants. They were also reassured of the confidentiality of the data collected during the study.

Results

A total of 322 subjects, comprising 166 men (54%) and 156 women (48.1%), with an average age of 41.4 ± 2.5 years participated in the study. Most (312, 96.89%) of the subjects were Christians, while 10 (3.11%) were practitioners of African Traditional Religion. Table 1 shows the socio-demographic characteristics of the subjects. Most of them (43.17%) were farmers, married (66.15%), and had at most primary school education (62.42%).

Only 29 (9.01%) of the subjects had abstained from drinking alcohol for at least one year preceding the study. Of the 293 (90.99%) that took alcohol, 126 (43.00%) took the local gin only, 147 (50.17%) took all available alcoholic drinks, and 20 (6.83%) drank only industrial beer and other alcoholic drinks

produced outside the community.

Table 2 shows the AUDIT scores of the respondents. About 33% of the subjects had harmful drinking, and are therefore classified as alcohol abusers, of which 41 (12.73%) had alcohol dependence problem. Thus, the 12-month prevalence of alcohol abuse in the community was 33.23%.

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Table 3 compares the socio-demographic characteristics of alcohol abusers with abstainers and social drinkers. There is no significant age difference between the alcohol abusers and abstainers/social drinkers ($P > 0.05$), but alcohol abusers were significantly more likely to be males ($P < 0.001$), in polygamous marriages ($P < 0.00001$), had lower educational status ($P < 0.0001$), more likely to be practitioners of the traditional religion, or Christians that attend spiritual churches ($P < 0.0001$), and more likely to be engaged in palm wine tapping.

Table 4 shows the results of the clinical examination of the subjects. The alcohol abusers had significantly higher prevalence of hepatomegaly ($P < 0.01$), hand tremor ($P < 0.05$), and tongue tremor ($P < 0.01$) than

abstainers/moderate drinkers.

Discussion

At least 90% of the respondents took alcohol in the preceding year, with most preferring the locally produced alcoholic beverages. This implies easy access and widespread use of alcohol in the community. This is not surprising considering that drinking alcohol is a major part of most social and religious activities in the community. This is also the situation in most comparable communities in Southern Nigeria,^[1] although recent studies, particularly those carried out in urban centers, had recorded higher levels of abstinence but did not take

Table 1: Socio-demographic characteristics of the study population

Socio-demographic characteristics	Frequency (N = 322)	%
Occupation		
Students	30	9.32
Housewives	22	6.83
Traders	40	12.42
Technicians (artisans)	8	2.48
Farmers/fisherfolk	139	43.17
Civil servants/uniformed officers	15	4.66
Unemployed (jobless)	21	6.52
Palm wine tappers	47	14.60
Educational status		
No formal education	105	32.61
Primary school	96	29.81
Secondary school	80	24.84
Tertiary	41	12.73
Marital status		
Single	84	26.09
Married	213	66.15
Polygamy*	115	66.15
Monogamy*	98	46.01
Separated/divorced/widow	25	7.76

Table 2: The alcohol use disorder identification test score of respondent

Characteristics	AUDIT score	No (%)
Abstainers	0	29 (9.01)
Moderate drinkers	/<8	186 (57.76)
Harmful drinkers	>/8	107 (33.23)
Alcohol dependence	>20	41 (12.73)

AUDIT = Alcohol use disorder identification test

Table 3: Socio-demographic characteristics of alcohol abusers and abstainers/moderate drinkers

Characteristic	Alcohol abusers 107	Abstainers 215
Age		
16 - 25	(11.21) 15	(15.35) 27
26 - 35	(14.02) 31	(12.56) 68
36 - 45	(28.97) 34	(31.63) 64
46 - 55	(31.78) 15	(29.77) 23
56 - 65	(14.02)	(10.76)
Sex		
Male	69 (64.49)	97 (45.12)
Female	38 (35.51)	118 (54.88)
Marital status		
Single		
Married	28 (26.17)	56 (26.05)
Separated/widow	72 (67.29)	141 (65.58)
widow	7 (6.54)	18 (8.37)
Married**	72	141
Polygamous	60 (83.33)	53 (26.05)
Monogamous	12 (16.67)	88 (62.41)
Education		
No formal education	54 (50.47)	51 (23.72)
Primary	29 (27.10)	67 (31.16)
Secondary	16 (14.95)	64 (29.77)
Tertiary	8 (7.48)	33 (15.35)
Religion		
Catholic	7 (6.54)	
Protestant	37 (34.58)	
Pentecostal	13 (12.15)	

Figures in parentheses are in percentage

Table 4: The prevalence of hepatomegaly, hand tremor and tongue tremor in alcohol abusers and abstainers/moderate drinkers

	Alcohol abusers	Abstainers	χ^2	P-value
Prevalence of hepatomegaly	19 (17.76)	17 (10.70)	7.04	< 0.01
Prevalence of hand tremor	14 (13.08)	11 (5.12)	6.33	< 0.05
Prevalence of tongue tremor	11 (10.28)	7 (3.25)	6.68	< 0.01

Figures in parentheses are in percentage

into account the consumption of locally produced alcoholic beverages.^[11] However, the prevalence of alcohol use recorded in the study is much higher than the 42% prevalence found in a comparative study carried out in Jos, North-Central Nigeria.^[7] The low prevalence recorded in the Jos study can be attributed to the sizable Muslim community in Jos. Moslems are under strict religious injunction to abstain from drinking alcohol.

Despite the high alcohol use in the study community, the prevalence of alcohol abuse and alcohol dependence, as recorded using both the AUDIT questionnaire and clinical examination, is lower than those found in more urbanized communities, where the prevalence of alcohol abuse and alcohol dependence was found to be 64.5 and 24.6%, respectively.^[12] The lower prevalence in the study community can be attributed to cultural practices that prevent excessive intake of alcohol in social and religious ceremonies, especially as most of the alcohols consumed in the community were the traditional alcoholic beverages. A 1988 study by the International Council for Alcoholism and Addiction had found that alcohol drinkers in Nigeria consume more industrial beer in one drinking episode than the traditional alcoholic beverages,^[13] a finding confirmed by other studies.^[14,15]

Cultural influences can also be the reason why age did not play a significant role in the prevalence of alcohol abuse in the study community, contrary to the finding in highly urbanized communities.^[15,16] The young in the study community, though served alcohol in most social ceremonies, are protected from taking excessive amount through the use of a communal drinking cup that is hierarchically passed round the drinking group according to age and title.^[1]

Religion was however found to be associated with alcohol abuse ($P < 0.0001$), with abusers likely to be practitioners of the traditional religion or Christians that attend 'spiritual' churches. Spiritual churches are Christian denominations that incorporate a lot of traditional religious beliefs into their practices. This is consistent with the finding of a 2002 national survey.^[15] The probable reason for the predisposition of practitioners of the traditional religion to alcohol abuse might be related to the fact that several traditional religious rites involve the use of alcohol either as a hallucinogen or as a solvent for traditional remedies.^[17]

The male gender was also positively associated with alcohol abuse in the study community. This is consistent with the finding in other studies.^[1,7,15] Alcohol consumption, particularly binge drinking, is seen in several communities as an emblem

of male superiority.^[18] Men also take alcohol to enhance sexual performance, for social acceptance, and to overcome societal stresses.^[19] This study also recorded a high prevalence of female alcohol abusers at 35.51%, which is not consistent with the finding in other traditional communities in Nigeria, where women were not freely allowed to drink alcohol.^[1] This trend however has also been noticed in urbanized communities, and blamed on the diminishing difference in the type of paid work undertaken by men and women, and the stress involved in juggling paid employment with parenthood.^[20] Women in the study community, like many others in other Ijaw communities, are recognized as breadwinners who are often engaged in supposedly male occupations like fishing.

Polygamous marriage was another socio-demographic characteristics found to be positively associated with alcohol abuse. The study carried out in Jos did not report any significant association,^[7] whereas a study carried out among primary care patients in Nigeria found the abuse to be more among people who are separated, divorced, or widowed,^[21] a finding supported by a 2002 national survey.^[15] It does however appear that alcohol is used in several communities to deal with emotional, physical, and family problems. Polygamy was very common in the study community, and has been linked to psychosocial problems and emotional deprivation.^[21]

Occupation and educational status were also found to play significant roles in the prevalence of alcohol abuse in the study community. Abusers were found to have lower educational status, which is consistent with the finding in the Jos study^[7] but contrary to the study in primary care patients that found the abuse mostly among highly skilled workers.^[22] This difference might be due to the different study population, and the fact that the study among primary care patients did not give much prominence to the consumption of traditional alcoholic beverages. Traditional alcoholic beverages are widely available in rural communities, often at a cost most people can afford; and alcohol pricing has long been recognized as a tool for the control of alcohol abuse.^[23]

Palm wine tapping was found to be particularly predisposing to alcohol abuse. This might be because palm wine tappers being producers have ready access to the product, whereas most other members of the community have to rely mostly on social and religious ceremonies.

Conclusion

Alcohol is widely consumed in the community, but

the prevalence of abuse was moderate, mainly due to cultural restrictions. Sales restrictions might be needed as the drinking habits of members of the community change with urbanization.

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