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PATTERN OF ALCOHOL USE AMONG DRIVERS OF COMMERCIAL VEHICLES IN CALABAR, NIGERIA

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**PATTERN OF ALCOHOL USE AMONG DRIVERS
OF COMMERCIAL VEHICLES IN CALABAR, NIGERIA**

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ABSTRACT

Objective: Hazardous use of alcohol is a public health problem which accounts for 4.0% of global burden of disease. We investigated the pattern and reasons for alcohol use among drivers of commercial vehicles in Calabar, Nigeria.

Design: A cross-sectional descriptive study.

Setting: The study was carried out in 18 of 32 clusters of motor parks in Calabar, Nigeria.

Subjects: Three hundred and sixty drivers of commercial vehicles participated in the study.

Result: The mean age of respondents was 38.5 ± 9.5 years. All respondents were male. More than four-fifth (84.4%) of respondents were alcohol users. About a quarter of respondents were hazardous alcohol users. Beer (76.6%) was the most patronised alcoholic beverage. Most (90.8%) alcohol users drank after work, usually (48.7%) in company of friends. The most commonly mentioned reason for alcohol use was for pleasure (59.2%).

Conclusion: Market-related interventions and sport-friendly motor parks could be useful in alcohol control.

INTRODUCTION

Hazardous use of alcohol is a public health problem which accounts for 4.0% of global burden of disease (1).

Most people drink responsibly but some groups of people are particularly at a higher risk of hazardous alcohol use. About 10% of the population consume more than 70% of alcohol (2). Males are at a higher risk of high-risk alcohol consumption, reportedly consuming over three quarters of alcohol globally (2).

It is estimated that 28% of adult population exhibits a high-risk drinking pattern, such as binge drinking, resulting in an increased risk of alcohol dependence (2).

In sub-saharan Africa, drivers of commercial vehicles are a notable high-risk drinkers with prevalence of use ranging from two-thirds to over four-fifth (3,4). Alcohol intoxication impairs judgment. Studies done in sub-Saharan Africa revealed that alcohol was a factor in about 50% of drivers' death in road traffic accidents in South Africa, and 27% of accidents in which the driver was not killed (5). A study done in Ghana found that the blood alcohol

concentration of more than 7% of drivers exceeded 0.08g/dl (6). Drunk driving is a major consideration in the control of road traffic accidents.

A dose-response relationship between alcohol use and severity of injury sustained in road traffic accidents, has been severally demonstrated (7).

Drivers of commercial vehicles are of peculiar interest because commercial road transport is the major means of transportation in Nigeria and drivers who use alcohol in a hazardous manner could endanger several lives. Attempts at controlling alcohol use among drivers of commercial vehicles have often failed (8). These attempts have mainly been legislation-driven (8).

In this study, we investigated the pattern and reasons for alcohol use among drivers of commercial vehicles in Calabar, with a view to providing a background for a more effective alcohol control among this group.

MATERIALS AND METHODS

This study was a cross-sectional descriptive investigation, carried out in Feb/March, 2009. Ethical approval was sought and obtained from the joint ethics review committee of the University of Calabar

and the University of Calabar Teaching Hospital. Calabar is a centre of tourism and the state capital of Cross River State, Nigeria.

Eighteen out of 32 clusters of motor parks were randomly selected by simple ballot. All consenting drivers met at the time of visit to the motor parks were enrolled in the study.

Sampling was planned and guided with the use of the 2007 National Population Commission (NPC) enumeration of drivers in motor parks. Sample size was predetermined with the use of Leslie-Kish formula for single proportion (9).

Data was collected with the use of an interviewer-administered semi-structured questionnaire, which included the WHO alcohol use disorders identification test (AUDIT). AUDIT was used to classify alcohol users into hazardous and harmless users (10).

In this study (as defined in the WHO AUDIT document) (10), one drink is defined as 10g ethanol content; 250mls (approximately half a bottle) of beer containing about 4-6% alcohol content; or 100mls of regular wine (containing 10-12% alcohol); or 33mls of spirit/gin (containing approximately 40% alcohol content); or 250mls of palm wine (palm wine

also contains about 4% of alcohol content).(11). The Statistical Package for Social Sciences, SPSS (version 14.0) was used to analyse data. Frequencies and proportions were reported.

RESULTS

Socio-demographic characteristics: Altogether, 360 commercial vehicle drivers were enrolled. Two hundred and twenty eight (63.3%) were long-distance drivers while 132 (36.7%) were short distance drivers. The mean age of respondents was 38.5 ± 9.5 years. The youngest respondent was 22 years old while the oldest was 62 years old. All drivers interviewed were males. Two hundred and eighty (77.8%) of respondents were married, 60 (16.7%) were single, 16 (4.4%) were cohabiting and 4 (1.1%) were divorced. Majority of the respondents (n= 340, 94.4%) were Christians while 20 (5.6%) were Muslims. One hundred and seventy-six (48.9%) were of the Ibibio tribe, 60 (16.7%) were Efik, 40 (11.1%) were Igbo, 8 (2.2%) each were of the Yoruba and Hausa tribes. Eight (2.2%) had no formal education, 160 (44.4%) had only primary education, 164 (45.6%) had secondary education, and 28 (7.8%) had post-secondary education (Table 1).

Table 1
Socio-demographic characteristics of respondents

Characteristics	Long distance (N= 228) (%)	Short distance (N=132)(%)	Total (N=360) (100%)	X ²	P-value
Age group (years)				68.54	<0.001
20 - 29	15 (22.1)	53 (77.9)	68		
30 - 39	99 (79.8)	25 (20.2)	124		
40 - 49	86 (71.7)	34 (28.3)	120		
≥ 50	28 (58.3)	20 (41.7)	48		
Tribe				3.56	0.614
Yoruba	4 (57.1)	3 (42.9)	7		
Hausa	4 (50.0)	4 (50.0)	8		
Igbo	28 (68.3)	13 (31.7)	41		
Efik	36 (60.0)	24 (40.0)	60		
Ibibio	107 (61.1)	68 (39.9)	175		
Others	49 (71.0)	20 (29.0)	69		
Marital Status				19.60	<0.001
Single	24 (40.7)	35 (59.3)	59		
Married	192 (68.3)	89 (31.7)	281		
Divorced/ Separated	4 (100.0)	0 (0.0)	4		
Cohabiting	8 (50.0)	8 (50.0)	16		
Educational attainment			4.78	0.091	
Primary or none	117 (69.2)	52 (30.8)	169		
Secondary	95 (58.3)	68 (41.7)	163		
Post-secondary	16 (57.1)	12 (42.9)	28		
Religion				0.405	0.525
Christianity	214 (62.9)	126 (37.1)	340		
Islam	14 (70.0)	6 (30.0)	20		

Overall, 304 (84.4%) of respondents were alcohol users. The mean age of onset of alcohol use was 20.9 ± 7.7 years while the mean age at first purchase of alcohol with personal money was 22.8±6.5 years. Two hundred and eighty (90.9%) used beer, 236 (76.6%) took palm wine while 128 (41.6%) took spirit /gin. Thirty-two (10.5%) of the respondents drank monthly or less, 84 (27.6%) drank two to four times a month, 116 (38.2%) drank two to three times a week while 60 (19.7%) used alcoholic beverages four times or more a week. Two hundred and eight (70.3%) took one or two drinks (10-20g alcohol content) on a typical day, 60 (20.3%) took three or four drinks, 20 (6.8%) took five or six drinks, 4 (1.4%) took seven, eight or nine drinks while 4 (1.4%) took ten or more drinks on a typical day. Two hundred and twenty-four (73.7%) had never indulged in heavy episodic drinking (bingeing i.e. six or more drinks on one occasion) (10), 16 (5.3%) indulged less than monthly, 28 (9.2%) indulged monthly, 28 (9.2%) indulged weekly while 8 (2.6%) indulged daily or almost daily. About a quarter of respondents were hazardous alcohol users (Table 2).

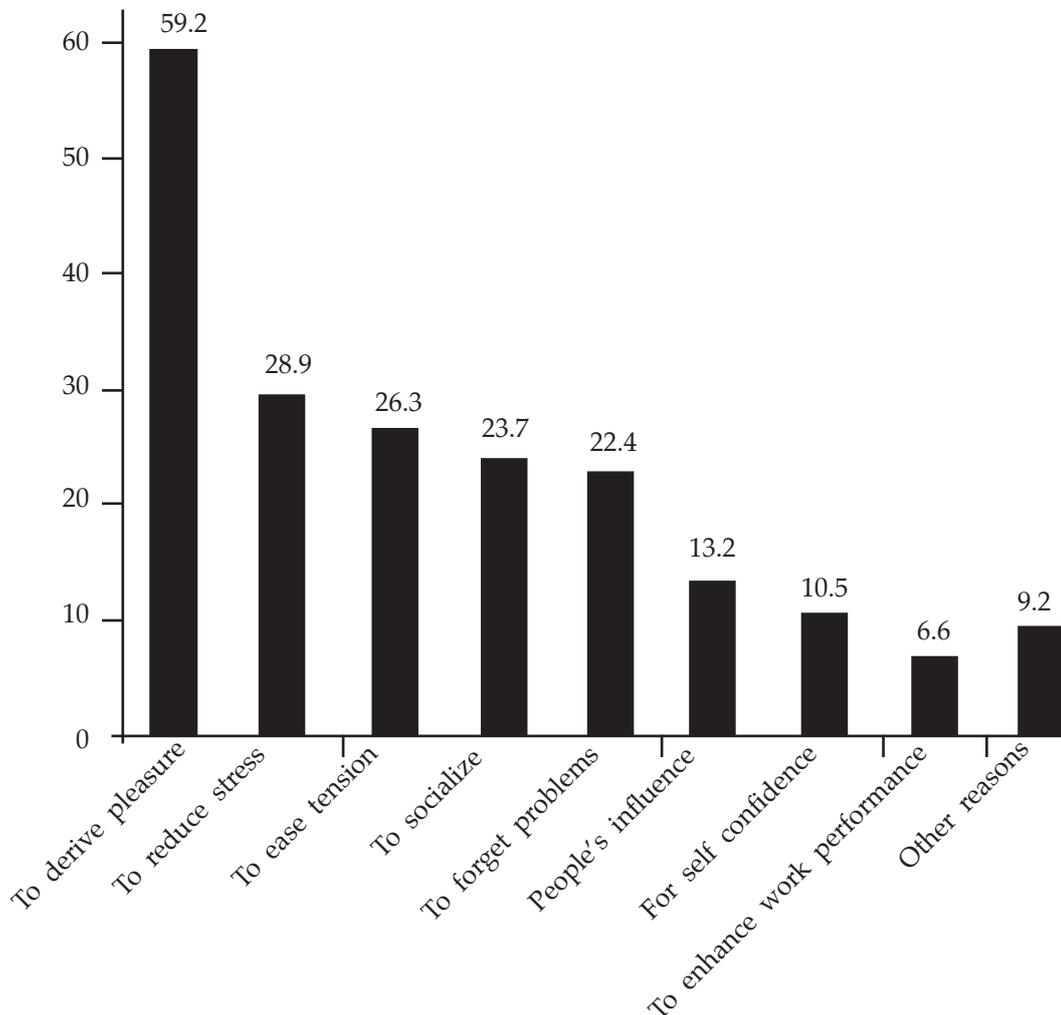
Table 2
Categories of respondents by alcohol use

Respondents	Frequency	Percentage (%)
Non-users	56	15.6
Harmless users	220	61.1
Hazardous users	84	23.3
Total	360	100.0

Twenty four (7.9%) took alcoholic drink before work, 44 (14.2%) took at work while the majority (n= 276, 90.8%) took after work. One hundred and fifty six (51.3%) of those who drank did so usually alone while 148 (48.7%) drank in the company of friends. Only 20 (6.8%) of those who took alcohol had ever been involved in drunken driving.

Reasons given for alcohol use were: to reduce stress (n=88, 28.9%), to ease tension (n=80, 26.3%), to socialize (n= 72, 23.7%), to enhance performance at work (n= 20, 6.6%), to enhance self-confidence (n= 32, 10.5%), to forget problems (n= 68, 22.4%), to derive pleasure (n= 180, 59.2%), due to people’s influence (n=40, 13.2%) and due to other reasons (n= 28, 9.2%) (Figure 1).

Figure 1
Reasons for alcohol use



DISCUSSION

This study reveals a high prevalence of alcohol use among drivers of commercial vehicles in Calabar. A similar study done in Ile-Ife, Nigeria (3) among drivers of commercial vehicles also showed a high prevalence (67.3%) of use among drivers of commercial vehicles although the our study showed a higher prevalence. Aniebue and Okonkwo, in a similar study among taxi drivers in Enugu, Nigeria reported a very close prevalence (85.4%) of psychoactive substance use, the commonest of which was alcohol, reportedly used by virtually all drivers that used other drugs (4). Drivers are a special group that deserves serious attention with regards to alcohol control. The role of alcohol in road traffic accidents and other health and social consequences emphasizes the strategic position occupied by drivers of commercial vehicles in alcohol control.

Several other similarities were found between this study and others on pattern of alcohol use. Majority (90.9%) of participants in this study took beer. Beer was also the most patronized type of alcoholic beverage in the study by Abiona and coworkers although the proportion of respondents that patronize beer (68.3%) was lower (3). Kasapila and Mkandawire, in a similar study conducted among college students in Malawi (12) reported a proportion of beer users (86.2%) that was similar to the value obtained in our study. A similar proportion of respondents however took spirit/gin in all three studies; 41.6% in our study, 39.6% in the study by Abiona and colleagues and 44.6% in the study by Kasapila and Mkandawire (3,12). A much higher proportion took palm wine in our study (76.6%) than in the study by Abiona and colleagues (45.2%), and Kasapila and Mkandawire (32.2%) (3,12). 'Hard liquor' was the most favoured alcoholic beverage in a focus group discussion conducted among commercial drivers in Ghana (13). This finding has important implication in alcohol control as these types of alcoholic beverages could be targeted for both legal and market-related restrictions to discourage use among this group especially at the motor parks.

About a quarter of alcohol users had a history of bingeing in the last 12 months. This was far less than what was documented among college students (85.4%) (12). The lower figure obtained in our study may be related to access as bingeing among college students was said to occur during weekend get-together parties and social celebrations where free alcoholic beverages were likely to have been provided.

Using the AUDIT grading, (10) about a quarter of respondents in this study were hazardous users. Some studies were however, not explicit in their grading of intensity of use. Abiona and colleagues reported that 47.0% of alcohol users (31.6% of respondents) in Ile-

Ife, Nigeria, were 'heavy users' while 53.0% of users (35.6% of respondents) were 'mild/moderate' users (3). Kasapila and Mkandawire used a similar term and reported a similar proportion (31.5%) of college students in Malawi as 'heavy users' although heavy use was defined as taking more than two drinks of alcoholic drink per sitting (12).

The time of use of alcoholic drinks seems to be consistent across studies. Majority (90.8%) of users drank after work in our study. Similarly, 74.5% drank after work in the study by Abiona and coworkers (3). About 8% and 14.2% of drivers in Calabar took alcoholic drink before and during work respectively compared to 13.5% and 1.9% in the study by Abiona and coworkers (3). The focus group discussion by Asiamah and colleagues, revealed that commercial drivers in Ghana concentrated their alcoholic intake to early mornings before work and late in the evenings after close of work (13). The timing of alcohol use may not be unconnected with the reasons given for taking the drink. In our study, more than half of those who used alcohol did so to derive pleasure and for relaxation-related reasons (to ease tension, to reduce stress, to socialise and to forget problems). Only 6.6% took alcohol to enhance performance at work. Peer influence may also play an important group role in alcohol use by respondents especially after work, as about half of them drank in the company of friends.

Reasons for alcohol use had been widely documented by other studies. The most commonly stated reason reported by Aniebu and Okonkwo was to remain strong and alert (4). Reasons reported by Asiamah and colleagues included 'relaxation', 'releases their inhibitions' and 'increases their confidence on the road', 'helps them to socialize' and 'they enjoy the taste' (13). Abiona and coworkers, reported the following reasons for alcohol use; to cope with frustration, to boost morale, and to be like others, among others. Heavy drinking after work may produce hangover the following day and this may endanger the lives of the drivers and their passengers.

It is important for policy makers to be aware of this pattern of use and reasons for use because it could be inadequate to legislate against alcohol use at motor parks as has been suggested by some studies (3) and has been announced by the Federal Road Safety Corps (FRSC) of Nigeria (8). Other avenues for relaxation and for deriving pleasure such as provision of sport/relaxation friendly motor parks that would encourage group participation in sporting activities after work, in conjunction with legislation could work better and may produce better compliance.

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