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PATTERN OF ALCOHOL CONSUMPTION AMONG COMMERCIAL ROAD TRANSPORT WORKERS IN A SEMI-URBAN COMMUNITY IN SOUTH WESTERN NIGERIA

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ABSTRACT

Objectives: To determine prevalence and pattern of alcohol use, evaluate the level of awareness of the harmful consequences of drinking, and determine the relationship between alcohol use and some selected factors among commercial road transport workers.

Design: Cross-sectional survey.

Setting: All the five motor parks spread over Ile-Ife, a semi-urban community in south western Nigeria.

Results: out of the 403 transport workers, 400 (99.3%) agreed to participate in the study. The questionnaire of one respondent was rejected. The current prevalence rate of alcohol use was 67.2%. Forty seven percent were 'heavy' users; 15.3% 'moderate' users and 37.7% were occasional or 'mild' users. All the users were engaged in the use of commonly available alcoholic beverages in the vicinity of the motor parks. Majority of the respondents (74.5%) reported drinking after work; 13.5% in the mornings; 10.1% when off-duty and 1.9%, during work. Frustrations that are associated with their work topped the list of reasons adduced for drinking. Belonging to lower age groups was significantly associated with current drinking ($X^2 = 17.46$, df = 3, p<0.001). The proportions of respondents with unsatisfactory level of awareness regarding the association of current drinking with road traffic accidents, and with physical complications were high.

Conclusion: Current alcohol use and use in a hazardous manner is an important public health problem among commercial road transport workers in Nigeria. There is an urgent need to modify existing legislations or enact new laws on 'driving under the influence' of alcohol, and enforce them.

INTRODUCTION

Intoxication from alcohol use is a major factor in injuries at home, at work and on the road (1). The contribution of alcohol use to increased risk of traffic accidents has been well established and has received international attention for many years (2). Under experimental conditions, higher plasma concentration of ethanol among drivers has been linked with poor judgment in manoeuvring and in real life situations, with an increased likelihood of involvement in road traffic accidents (3). Indeed, it has been estimated that nearly half of all traffic fatalities involve alcohol use (1). Owing to the increasing importance of road traffic accidents as a cause of morbidity, mortality, disability and economic loss, international attention has been focused on developing policies and strategies for prevention of injuries and fatalities from alcohol-impaired driving. Most industrialised nations have

consequently introduced new legislations, intensified enforcement of drinking and driving laws, and also increased research efforts in alcohol-related crashes (2). It has been suggested that developing countries should endeavour to examine and prioritise the extent of influence of the various country – specific road accident risk factors and to generate data appropriate for developing and monitoring targeted traffic injury prevention interventions (2).

Although, the relationship between traffic injuries and alcohol consumption has not been adequately examined in Nigeria, recent evidence indicates that alcohol consumption is a leading cause of accidents (4). This study was therefore conducted to determine the prevalence and pattern of alcohol use among commercial road transport workers, a group that has been reported as a major contributor to road traffic accidents by the media in Nigeria.

MATERIALS AND METHODS

Study location: The study was conducted in Ile-Ife, a semi-urban town in Osun-State, south-western Nigeria.

Sample: The sample included 400 commercial drivers who agreed to participate in the study out of the 403 drivers who were on duty at all the five major motor parks and the office of the National Union of Road Transport Workers in Ile-Ife during the survey. All the respondents were passenger transport drivers.

Procedure: The sample size of 384 was determined using a current alcohol use prevalence rate of 50%. The survey questionnaire was pre-tested on 40 drivers in the employment of the Obafemi Awolowo University, Ile-Ife, two weeks before the main study. These drivers were driving cars and buses like the commercial drivers and were engaged in transporting university staff. The questionnaire was appropriately modified after the pilot study. The cooperation of the leadership of each of the study sites was sought and each was visited in turn as previously agreed upon. The consent of each participant was obtained after the objectives of the study had been explained. Each was assured that the information supplied would not be disclosed to another party to enhance honesty of responses. At

each location, all the commercial road transport workers who gave consent were evaluated. Each was assessed once, and in privacy.

Inventories: The 28-item questionnaire administered was interviewer-rated and consisted of two parts. The first part elicited the socio-demographic information of the respondents. The second part assessed the pattern of alcohol use (with questions formulated using the WHO methodology which has been validated in Nigeria) (5,6), factors associated with alcohol use and the level of awareness of the consequences of alcohol consumption by the respondents.

RESULTS

The questionnaires of 399 respondents were analysed. One questionnaire was rejected. All the respondents were male. Other socio-demographic characteristics of the study population are presented in Table 1. The age group 30-39 years accounted for the highest proportion of respondents (32.1%) compared with the other three age groups. Majority of the respondents (81.7%) were married. In Nigeria, the first level of education is the primary school education with duration of six years. This is followed by secondary school education, which is also of six-year duration. Candidates with good grades at the school leaving examination at this stage are eligible to proceed to the final (tertiary) level at colleges of education, polytechnics or universities with duration ranging from three to six years. Most of the respondents completed primary (56.8%) and secondary school (31.8%) education. Only a few had no formal education or attained higher (tertiary) education. Almost all the respondents belonged to the two major religions in Nigeria (Christianity and Islam) and there was a preponderance of respondents belonging to the Yoruba ethnic group, which is the ethnic group of the catchment area.

Current (one month) prevalence rate and pattern of alcohol use: Out of the 399 road transport workers, 268 engaged in current use of various forms of alcoholic beverages. This represents current use prevalence rate of 67.2%. The pattern of alcohol use by these users is shown in Table 2. One hundred and twenty six users (47%) belonged to 'heavy use' (daily use) category. Forty one (15.3%) users had used alcohol in about 50% of the days of the preceding month (moderate

use) while 101 (37.7%) had used alcohol on fewer days (mild use). The most commonly used alcoholic beverage by the respondents was beer (68.3%) followed by palm wine (45.2%), spirits (usually locally distilled), which was used by 106 (39.6%) users and stout, by 79 (29.5%) users. Most respondents (74.5%) reported using alcohol after the day's work. Thirty six respondents (13.5%) reported drinking in the mornings before driving while 29 (10.1%) claimed they drink only on days when it was not their turn to load and carry passengers. Five respondents (1.9%) were involved in drinking during the course of the day's work. Drinking to cope with frustration topped the list of reasons adduced for alcohol use. This was followed by the desire for increased energy; to boost morale, to be like others; to enjoy the taste of alcoholic beverage, and to keep alert. Thirty one respondents (11.6%) in varied proportions gave other reasons, which include drinking for relaxation, to initiate sleep, to control temper, to ward-off cold and use in herbal remedies.

Association between alcohol use and some selected variables among the respondents: From Table 3, it can be seen that belonging to lower age group (i.e., being under 40 years) was associated with current alcohol use than being older. The difference was significant ($x^2 = 17.46$, df = 3, P<0.0l). However, no difference was observed on which of the two main religions the respondents belonged ($x^2 = 0.17$, df = 1, P>0.05). Although, about three in five of all respondents (62.3%) were aware of a strong relationship between alcohol consumption and road traffic accidents (not tabulated) only about one in five of them (19%) reported awareness of the physical complications (such as liver disease) of alcohol use. Among the current users (Table 4), a significant positive relationship was observed between being aware of the harmfulness of alcohol use (physical and social) and willingness of the respondents to stop drinking ($x^2 = 32.09$, df = 1, P<0.0001). However, about one in five (19.4%) of users with awareness were unwilling to stop drinking.

Table 1

Socio-demographic characteristics (n = 399)

Parameter	No. of respondents	(%)
Age group (years)		
≤30	115	28.8
30-39	128	32.1
40-49	88	22.1
≥50	68	17.0
Marital status		
Single	69	17.3
Married	326	81.7
Separated/Divorced	4	1.0
Education		
Nil	32	8.0
Primary	224	56.1
Secondary	127	31.8
Tertiary	16	4.0
Religion		
Christianity	268	67.2
Islam	130	32.6
Traditional	1	0.2
Ethnicity		
Yoruba	377	94.5
Ibo	14	3.5
Others	8	2.0

Table 2

Pattern of alcohol use and reason for drinking (n = 268)

Variable	No. of respondents	(%)
Extent of use		
Heavy use	126	47.0
Moderate use	41	15.3
Mild use	101	37.7
Type of beverage used*		
Spirits	106	39.6
Stout	79	29.5
Beer	183	68.3
Palm wine	121	45.2
Time of Use*		
Before day's work	36	13.5
During work	5	1.9
After day's work	199	74.5
When not working	29	10.1
Reason for drinking*		
To keep alert	14	5.2
To cope with frustration**	90	33.6
To boost morale	61	22.8
For more energy	59	11.0
To be like others	52	19.4
Taste is enjoyable	32	11.9
Other reasons	31	11.6

*   Sum of response rates more than No. because of multiple responses on these variables.

** Reported causes of frustration include high cost of petrol, debts owned and harassment by law enforcement agents.

Table 3

Association between two variables (age group and religion) and current alcohol use among the respondents

Variable	Current Alcohol Use				X^2	df	P-value
	Positive (n = 268*)		Negative (n = 131)				
	No.	(%)	No.	(%)			
Age group (years)							
-30	73	27.2	42	32.1	17.46	3	<0.001
30-39	102	38.1	26	19.8			
40-49	58	21.6	30	22.9			
ž50	35	13.1	33	25.2			
Religion							
Christianity	178	66.4	90	68.7	0.17	1	>0.05
Islam	89	33.2	41	31.3			

*No. = Less than 268 for religion because one user who was a traditionalist was not included in the analysis.

Table 4

Association between perceived harmfulness of alcohol use and willingness to stop drinking among the current users of alcohol

Perceived harmfulness	Respondents willing to stop		Respondents not willing to stop		X^2	df	P-value
	No.	(%)	No.	(%)			
Yes (n = 180)	145	80.6	35	19.4	32.09	1	<0.001
No. (n = 88)	41	46.6	47	53.4			

DISCUSSION

From the data presented, the prevalence rate of alcohol use in the study population (67.2%) was quite high and worrisome especially as this represents the current use rate. Although, majority of the users reported drinking after the days work, a sizeable proportion was engaged in drinking at hazardous times. These include 13.5% of the users who were engaged in drinking in the mornings and another 1.9% who reported drinking during the course of work. In addition, over a half of the users were heavy or moderate users. Therefore, the proportion of these transport workers at increased risk of intoxication during driving would be high. Intoxication from alcohol has been linked to road traffic accidents because of consequent slow reaction time, and impairment in visual perception, judgment, decision-making skills and ability to coordinate them. Even, for drivers with high blood alcohol levels and who appear to be in full control, as soon as the unexpected happens, they are at far higher risk of an accident than the sober driver (7).

From the results (Table 2), the commonly used alcoholic beverages are the cheap ones and these are also commonly available in the vicinity of the motor parks in Nigeria. A group of Nigerians on which considerable research attention on pattern of alcohol and drug use has been focused are students at all levels of education. Our findings on the use of easily available and cheap beverages are in conformity with previous findings on Nigerian students (8-10). Frustration topped the list of reasons adduced by the respondents for taking alcohol. Reported reasons for frustration by the respondents include incessant increases in the prices of petroleum products and motor vehicle spare parts, debts owed to various cooperative societies and constant harassment by

policemen and other law enforcement agents. Urgent attention of policy makers is required to ameliorate the work-related frustrations. The other reasons adduced for drinking are largely a result of ignorance on the part of the respondents and require enlightenment. The results also show that drivers belonging to lower age groups were more involved in current use of alcohol compared with older drivers. From some previous findings in developed countries, young people especially in their twenties have been observed to be disproportionately involved in drink-drive accidents (11,12). Younger drivers may therefore constitute greater danger on Nigerian roads and this calls for a sustained general enlightenment together with individual enlightenment at the point of issuance of driving license for this category of commercial drivers.

Belonging to any of the two major religions in the country was not observed as a deterrent to current drinking, although Islam, to which over 30% of the sample belong, forbids drinking. While religion may not appear useful in formulating preventive programmes, the finding of positive relationship between awareness of harmful effect of alcohol and willingness to stop drinking indicates that reinforcing this relationship through concerted awareness campaigns may be useful, more so that perceived harmfulness has previously been linked with low drug use rates among Nigerians (8,9). The observations on the level of awareness of the commercial drivers with regards to the association between drinking and road traffic accidents and the other harmful consequences of drinking indicate that this is an aspect which also requires adequate attention.

In Nigeria, the Federal Road Safety Commission (FRSC) is the federal government agency saddled with the responsibility of maintaining sanity and preventing

accidents on Nigerian roads. In recent years, this commission has embarked on aggressive media campaign on the need to stem the tide of the ever increasing cases of road traffic accidents on Nigerian roads, with drunkenness identified as one of the major causes. Judging by the present high current drinking rate among the commercial road transport workers in this study, the commission's observation and the concern expressed are not surprising. This situation calls for urgent attention. Apart from increasing awareness in the identified areas of deficiency, comprehensive demand-reduction and supply-reduction strategies are necessary. Also, there is an urgent need to enact new laws or strengthen existing ones on drinking under the influence of alcohol, and to enforce them. The FRSC should be equipped with both human and material resources to be able to identify drivers who drive under the influence of alcohol through regular breath tests, as practiced in many developed countries.

A possible limitation of this study is the use of interviewer-rated questionnaire, which may influence respondents' response on the drug use items. The use of self-report questionnaire would ensure anonymity, but was considered inappropriate in the study population because of their low education and their low understanding or familiarity with self-report questionnaires. However, each respondent was evaluated privately, assured of confidentiality, and the substance surveyed, beinglicit, enjoys wide acceptability in the respondents' culture.

ACKNOWLEDGEMENTS

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