



# Driving under influence among long distance commercial drivers in Akure, South West Region, Nigeria

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## ABSTRACT

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**Objectives:** Motorized automobile accident is a substantial cause of ailments and death in our neighbourhood and driving under the influence of various agents affecting the central nervous system such as alcohol have been associated with the occurrence of auto accidents as most users believe these agents will help control probable sleep while driving. This study is therefore designed to examine the use of alcohol among long distance commercial drivers in the course of driving in Akure, Nigeria. **Methodology:** An open-ended structured questionnaire was administered consecutively to 405 consenting male long distance commercial drivers by interviewer in each of the selected parks. The cross-sectional survey questionnaire comprised sections on socio-demographic data, driving experience, ocular history, auto-accident history as well as information about alcohol consumption. **Results:** The mean age (SD) was 38.4 (9.5) years while the mean (SD) driving duration was 8.1 (5.8) years. 144 respondents (35.6%) had primary school leaving certificate while 103 respondents (25.4%) had secondary school leaving certificate with 22 respondents (5.4%) having no form of western education. 155 drivers (38.3%) had been involved into auto accident in the past five years. The prevalence of alcohol consumption shortly before or while driving was 20.5%. **Conclusion:** Alcohol consumption is very rampant among long distance commercial drivers in Akure, Nigeria. Thus, more education on the possible hazards of this conduct is required for these drivers alongside the entire populace so as ascertain safer roads in the country.

**KEY WORDS:** Alcohol, auto-accident, drivers, education

## INTRODUCTION

Mostly, long distance drivers in Nigeria, drive under more pressure than those plying their trade within the various towns and cities. Although, majority of these drivers mostly deliver certain agreed amount of money to the owner every day or every week, sizeable number of these drivers own the vehicles themselves [1]. Due to the nature of their job, mainly involving multiple trips with little or no time of rest, quite a number of these drivers believe that augmenting or enhancing their strength with the use of certain substances such as alcoholic drinks or herbs, among others, will help relieve them of the stress, increasing their performance, ensuring sleep is either delayed or halted as long as probable, keeping their body system at alert, sometimes for recreation, refreshment or just for social purposes. Meanwhile, majority of these substances affect their central nervous system in the long run, impairing their driving abilities and subsequently leaving them and their passengers at a tremendous risk of auto-accident, mainly as a result of the use of these substances, although, eye defects also contribute to this incidents [2 - 5]. A major factor or condition that stimulates greater consumption of alcohol is the availability of the alcoholic products within or around the motor park premises, despite the prohibition of the sale of these products. This study is therefore designed to carry out a survey on the use of alcohol/liquor among long distance commercial drivers in the course of driving in Akure, South West Region, Nigeria.

A 2002 study on understanding the knowledge and attitudes of commercial drivers in Ghana regarding alcohol impaired driving reported that majority of drivers expressed an understanding that drunk driving was a significant risk factor for crashes and concluded that commercial drivers understand the basic danger of drunk driving and are motivated to assist in anti-drunk driving measures and that there are misconceptions and deficits in knowledge that need to be addressed in subsequent educational campaigns [6]. A 2011 study on driving under influence among long distance commercial drivers in Ilorin, Nigeria, reported that 42.1% of those interviewed had no form of western education while 37.3% had primary education. 20.8% had been involved in motor vehicle accidents over the previous 10 years. The prevalence of daily alcohol consumption, cigarette smoking while driving, and eating kola-nut while driving were 11.5%, 25.8%, and 48.4% respectively and concluded that there is need to enforce existing laws, educate the drivers and the general public on the potential dangers of this habits, and conduct further research into road safety in Nigeria [7]. A 2012 study on psycho-spatial predictors of hazardous drinking among motor drivers in Ibadan, Nigeria: implications for preventing vehicular accidents reported that stated about 45% of commercial drivers and 25% of private drivers reported hazardous levels of alcohol consumption, with 19.5% of the commercial drivers having less than high school education, while only 6.2% of the private drivers

reported a similar level of education and concluded that psychological, environmental and demographic variables are important in understanding hazardous drinking among drivers and should be incorporated into intervention for reducing drivers' hazardous drinking, including drinking and driving [8]. Another 2014 study on alcohol and other psychoactive substance use among tanker drivers in Lagos, Nigeria reported a lifetime use prevalence of alcohol as 71.6%, tobacco 69.8% and caffeine 50.9% while the current use prevalence of alcohol was 57.6% and concluded that increased and sustained education programmes on alcohol and other drugs, in addition to other measures, should be targeted towards tanker drivers in Nigeria [9]. A 2008 European Transport Safety Council (ETSC) report on drink-driving in commercial transport which stated that, at least 20% of all road deaths in Europe are alcohol related [10], as well as, the 2009 Austrian and 2010 Switzerland overview of the studies in drivers suspected of driving under the influence of drugs and alcohol which reported alcohol detected to be 30% and 35% respectively [11, 12].

**MATERIALS AND METHODS**

**Study Site/Subject Selection/Study Design**

The cross-sectional survey study was conducted at various main long distance commercial motor parks in Akure Town, South West Region, Nigeria. Locations were selected based on availability of the targeted population. Participation was voluntary and informed consent was obtained by participants' signing the consent form attached to the questionnaire. Names of participants were not included in the information requested. A structured questionnaire was administered consecutively in each of the selected motor parks to 405 consenting long distance commercial drivers by interviewer. Simple random sampling was used to randomly select the required number of participants till the required number of willing participants is recruited. The questionnaire contained sections including socio-demographic data, driving experience, ocular history, auto-accident history as well as information about the consumption of alcohol/liquor. The data collected through the questionnaire were statistically analyzed using Statistically Package for the Social Sciences (SPSS) for windows version 20.0 software. Frequency counts were generated for all variables and statistical tests of significance was performed with chi square test. Significance was fixed at P < 0.05 and highly significant if P < 0.01.

**Sample Size**

Sample size calculation was determined using 95% response rate, 0.05 precision and prevalence rate. A 2011 study on driving under influence among long distance commercial drivers in Ilorin, Nigeria, revealed that the prevalence of daily alcohol consumption, cigarette smoking and eating kola-nut while driving were 11.5%, 25.8%, and 48.4% respectively. It is on this premise that our sample size was calculated, using

the highest percentage [7]. The formula for sample size when population is more than 1000 is:  $n = Z^2PQ/d^2$  [13, 14].

$$n = Z^2PQ/d^2$$

Where:

n = minimum sample size,

Z = standard normal deviation at 95% confidence interval which is 1.96,

d = degree of precision (taken as 0.05),

P = proportion of the target population or prevalence (estimated at 48.4% which is 48.4/100 = 0.484),

Q = alternate proportion (1-P) which is 1-0.484 = 0.516

$$n = (1.96)^2 (0.484)(0.516) / (0.05)^2 = 384$$

**RESULTS AND ANALYSIS**

**Socio-Demographic Data**

A total of 405 consenting male long distance commercial drivers participated in the study. Two hundred and forty two (59.8%) of the drivers were 40 years and below, while one hundred and twenty (29.6%) were between 41 – 50 years and forty three (10.6%) being more than 50 years of age. The mean age (SD) was 38.4 (9.5) years. Three hundred and seventeen (78.3%) driver are married, with eighty one (20.0%) being single, while others are either divorced or widowed.

**Table 1.** Consumption of alcohol shortly before or during driving

CNS Active Agents	Frequency	Percentage (%)
Alcohol	83	20.5

**Driving Experience and Educational Status**

One hundred and thirty (32.1%) drivers had 1 – 5 years driving experience, while two hundred and forty (59.3%) drivers had 6 – 20 years driving experience, with the mean (SD) driving duration being 8.1 (5.8) years. The mean (SD) distance covered by the drivers was 285.3 (197.4) km. Two hundred and five (50.6%) drivers had ever trained at a registered driving school with mean (SD) training period of 2.4 (3.8) months. Fifty seven (14.1%) drivers were travelling between Akure & Lagos while forty seven (11.6%) drivers travel between Akure & Abuja with Akure to Ibadan being travelled by thirty (7.4%) of the drivers, making these three routes the most commonly travelled routes. One hundred and forty four (35.6%) drivers had primary school leaving certificate while one hundred and three (25.4%) drivers had secondary school leaving certificate, eighty six (21.2%) drivers having NCE/OND/HND, which are national certificate in education, ordinary national diploma & higher national diploma respectively and twenty two (5.4%) drivers having no form of western education.

**Table 2.** Relationship between alcohol consumption shortly before/during driving with involvement in auto accident in the past 5 years

	Involvement in auto accident in the past 5 years		
	No	Yes	Total
<b>Alcohol consumption shortly before/during driving</b>			
No	206	117	323
Yes	44	38	83
Total	250	155	405

$\chi^2 = 3.791, p\text{-value} = 0.337$

The relationship between alcohol consumption shortly before or during driving with involvement in auto accident in the past five years was not statistically significant at  $P < 0.05$ .

**Ocular History**

Only fifteen (3.7%) drivers reported they currently have eye defect, with majority of them clinically diagnosed of short sightedness, where close objects are seen clearly but distant objects appear blurred. Only nine (2.2%) drivers wear eye glasses prescribed by eye physician to aid driving.

**Type of Vehicle & Involvement in Auto Accident**

Two hundred and sixty four (65.2%) drive bus, sixty nine (17.0%) drive cars while sixty six (16.3%) drive lorry. A massive two hundred and thirty two (57.3%) had ever previously been involved in auto accident while one hundred and fifty five (38.3%) had been involved in auto accident in the past five years, with sixty six (16.3%) of them involved just once while forty six (11.4%) had been involved twice. Thirty seven (9.1%), twenty nine (7.2%), twenty eight (6.9%), seventeen (4.2%) and eight (2.0%) auto accidents were said to have been due to bad road, faulty vehicle, driver error, bad weather and excessive speed respectively.

**Alcohol Consumption**

One hundred and seventy four (43.0%) of the drivers consume alcohol habitually while only eighty three (20.5%) consume alcohol shortly before or during driving, with gin and beer being the most commonly consumed alcohol, with forty six (11.4%) and twenty seven (6.7%) respectively. A total of thirty five (8.6%) drivers consume this alcohol daily, with majority consuming as much as two sachets of 30ml gin containing a minimum of 40% alcohol and at least a bottle of 600ml beer containing a minimum of 5% alcohol, shortly before or during driving. The main reasons given for consuming alcohol include use for refreshment/recreation, keeping their body system at alert, and occasionally for just social purposes.

**DISCUSSION**

Our findings are slightly in contrast to that reported by a 2011 study on driving under influence among long distance commercial drivers in Ilorin, Nigeria, which reported that 42.1% of those interviewed had no form of western education while 37.3% had primary education. 20.8% had been involved

in motor vehicle accidents over the previous 10 years [7]. Also, another 2012 study on psycho-spatial predictors of hazardous drinking among motor drivers in Ibadan, Nigeria, reported that 19.5% of the commercial drivers are having less than high school education, while only 6.2% of the private drivers reported a similar level of education and concluded that psychological, environmental and demographic variables are important in understanding hazardous drinking among drivers and should be incorporated into intervention for reducing drivers' hazardous drinking [8].

This study also found that a significant percentage of commercial drivers in Akure, Nigeria, were habitually involved in consumption of alcohol. The bulk of the alcohol consumed includes beer, alcoholic herbs, gin and alcoholic wine, which are often available within or around the motor park premises. Although the sale of alcohol near the premises of motor parks is prohibited, sales have continued largely unchecked with or little or no enforcement at various parks thus enhancing the availability to the drivers. Alcohol generally affects the central nervous system of users in the long run, impairing their driving abilities and subsequently leaving them and their passengers at a tremendous risk of auto-accident [2 - 5]. The outcome of this study is similar to that reported in a 2011 study on driving under influence among long distance commercial drivers in Ilorin, Nigeria, which revealed that the prevalence of daily alcohol consumption while driving was 11.5% [7]. The finding of this study vary from a 2012 study on psycho-spatial predictors of hazardous drinking among motor drivers in Ibadan, Nigeria, which stated that about 45% of commercial drivers and 25% of private drivers reported hazardous levels of alcohol consumption [8]. The outcome of a 2002 study on understanding the knowledge and attitudes of commercial drivers in Ghana regarding alcohol impaired driving reported that majority of drivers expressed an understanding that drunk driving was a significant risk factor for crashes and concluded that there are misconceptions and deficits in knowledge that need to be addressed in subsequent educational campaigns [6]. Our findings are also similar to a 2008 European Transport Safety Council (ETSC) report on drink-driving in commercial transport which stated that, at least 20% of all road deaths in Europe are alcohol related [10], as well as, the 2009 Austrian and 2010 Switzerland

overview of the studies in drivers suspected of driving under the influence of drugs and alcohol which reported alcohol detected to be 30% and 35% respectively [11, 12].

Also, the study is in contrast to a 2014 study on alcohol and other psychoactive substance use among tanker drivers in Lagos, Nigeria, which reported a current use prevalence of alcohol to be 57.6% and concluded that increased and sustained education programmes on alcohol, in addition to other measures, should be targeted towards tanker drivers in Nigeria [9]. The variations might be due to the difference in methodologies. Thus, more education on the possible risks/hazards of consumption of alcohol is required for these drivers alongside the entire populace so as ascertain safer roads in the country. Laws prohibiting the use of alcohol must also be enforced inside or near the premises of motor parks.

## CONCLUSION

In conclusion, alcohol consumption is very rampant among long distance commercial drivers in Akure, Nigeria. Thus, more education on the possible risks/hazards of these conducts is required for these drivers alongside the entire populace so as ascertain safer roads in the country.

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## REFERENCES

1. World Health Organization (WHO). World report on road traffic injury prevention. [www.who.int/world-health-day/2004/infomaterials/world\\_report/en](http://www.who.int/world-health-day/2004/infomaterials/world_report/en) [access date: 24/04/2015]
2. Zhao XG, He XD, Wu JS, Zhao GF, Zhang M, Gan JX, Xu SW, Jiang GY. Risk factors for urban road traffic injuries in Hangzhou, China. *Arch Orthop Trauma Surg* 2009; 129 (4): 507 – 13.
3. Abiona TC, Aloba OO, Fatoye FO. Pattern of alcohol consumption among commercial road transport workers in a semi-urban community in south western Nigeria. *East Afr Med J* 2006; 83 (9): 494 – 9.
4. Oladehinde MK, Adegbehingbe BO, Adeoye AO, Onakoya AO. Central nervous system stimulants: effect on visual functions and occurrence of road traffic accidents. *Ann Ital Chir* 2009; 80 (1): 43 – 8.
5. Bekibele CO, Fawole OI, Bamgboye AE, Adekunle LV, Ajav R, Baiyeroju AM. Risk factors for road traffic accidents among drivers of public institutions in Ibadan, Nigeria. *Afr J Health Sci* 2007; 14: 137 – 42.
6. Asiamah G, Mock C, Blantari J. Understanding the knowledge and attitudes of commercial drivers in Ghana regarding alcohol impaired driving. *Injury Prevention* 2002; 8: 53–56.
7. Adekoya BJ, Adekoya AO, Adepoju FG, Owwoeye JFA. Driving under influence among long distance commercial drivers in Ilorin, Nigeria. *Int J Biol Med Res* 2011; 2(4): 870 – 873.
8. Abikoye GE. Psycho-spatial predictors of hazardous drinking among motor drivers in Ibadan, Nigeria: Implications for preventing vehicular accidents. *Int J Alcohol & Drug Res* 2012; 1(1), 17 – 26. ISSN: 1925-7066.
9. Makanjuola AB, Aina OF, Onigbogi L. Alcohol and other psychoactive substance use among tanker drivers in Lagos, Nigeria. *Eur Scientific J* 2014; 10 (15). ISSN: 1857 – 7881.
10. European Transport Safety Council (ETSC). Drink-driving fact sheet, ETSC, Brussels, 2008; ISBN Number: 9789081467513.
11. Keller T, Keller A, Tutsch-Bauer E, Monticelli F. Driving under the influence of drugs and alcohol in Salzburg and Upper Austria during the years 2003–2007. *Legal Medicine (Tokyo)* 2009; (11 Suppl. 1), pp. S98–S99.
12. Senna MC, Augsburg M, Aebi B. First nationwide study on driving under the influence of drugs in Switzerland. *Forensic Sci Int* 2010; 198, pp. 11–16.
13. Fisher RA. *Statistical methods for research workers*. Oliver and Boyd, 1954; ISBN 0-05-002170-2.
14. Daniel WW. *Biostatistics: A Foundation for Analysis in the Health Sciences*, 1999; 7th ed.

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