Nutritional Status and Alcohol Consumption of Commercial Drivers in Enugu North Local Government Enugu area of Nigeria

[1]Olurin T.O., [2]Adebayo Y.O.,[1]Olutayo K. O. and [1]Siyanbola S. S

[1.]*Department of Chemical and Food Sciences, College of Natural and Applied Science Bells University of Technology, Ota, Ogun State, Nigeria.*

[2.]*Department of Nutrition and Dietetics, College of Food Science and Human Ecology, Federal University of Agriculture, Abeokuta, Ogun State, Nigeria.*

***Corresponding author:** tayeolurin@gmail.com*

ABSTRACT

***Background:** Alcohol is a psychoactive substance and its excessive intake has been linked to various nutritional diseases.*

***Objective:** This study assessed the nutritional status and alcohol consumption of commercial motor drivers in Enugu North LGA of Enugu State.*

***Methods:** Simple random sampling was used to select two hundred and fifty (250) commercial motor drivers from five commercial motor parks within the Local Government Area. A modified and semi-structured interviewer's administered questionnaire was used to elicit information on the respondents' socio-demographic characteristics, food habits, and alcohol consumption respectively while anthropometric method was used to assess nutritional status with the use of weighing scale (weight) and heightometer (height). Descriptive and inferential statistics were used to analyze the data at $p < 0.05$.*

***Result:** The majority (40%) were between 30-39years, 71.6% married, 52.4% secondary school and 98% Igbo. About 53% ate twice a day, 91% skipped their lunch meal and 90% bought their food from a vendor. Beer consumption (24.4%) was the highest and the majority were overweight (47.6%). A significant association between socio-demographic characteristics, alcohol consumption and nutritional status was observed ($p<0.05$). The majorities of the respondents consumed alcohol (91.4%), especially beer, in high proportions (54%), had poor dietary habits and, as a result, were overweight. Alcohol consumption was associated with the socio-demographic characteristics and nutritional status of the respondents.*

***Conclusion:** Appropriate nutrition education to promote healthy eating habits and lifestyles is thus required.*

Keyword: Beer, food habits, body mass index, overweight

Received: 25-03-23
Accepted: 06-06-23
doi: https://dx.doi.org/10.4314/njns.v44i2.10

INTRODUCTION

In every area of the world, particularly in Nigeria, alcohol consumption isa tradition and the most widely abused psychoative chemical (1,2). Recent sociocultural practises, fast lifestyle changes, and the proliferation of locally produced brands have all contributed to an increase in alcohol consumption in Nigeria. Alcohol use is often seen as a component of social activities conducted in outdoor and open spaces, such as motor parks (3,4) and along roadsides and street corners(5).Beer is the most often consumed alcoholic beverage, according to the majority of research, but the overall pattern varies according to the community and year analyzed. (6,7,8).

Alcohol is an empty-calorie food because it has little to no nutritional value.(9,10,11). The World Health Organization in 2018 reported over 3 million human deaths due to the harmful use of alcohol in 2016 and men accounted for more than three quarters of these deaths.Alcohol abuse accounts for more than 5% of the worldwide illness burden (12, 13, 14). Numerous individuals, families, and communities bear the effects of hazardous alcohol consumption as a result of violence, injuries, mental health issues, and diseases such as cancer and stroke (15). Alcoholism is a risk factor for a variety of disorders, and its frequency or amount influences the risk of malnutrition, weight gain, obesity, and cardio-vascular disease (9, 12, 14,15).

Alcohol consumption might raise the risk of gaining weight and developing obesity or malnutrition (16). As a result, it is critical to increase efforts to avert this major threat to the formation of healthy societies (17). The vast majority of commercial drivers are men (teenagers and young adults). Commercial drivers have a huge impact on economic development. They continue to be the primary contributors to daily activities in Nigerian society. As a result, it is necessary to pay attention to their well-being. Due to the unpredictable nature of their profession, which exposes them to long work hours (up to 14 hours per day), excessive noise, prolonged sitting, and unhealthy lifestyles, commercial drivers (truck, bus, and taxi drivers) are reported to be at risk for negative health outcomes (18). Thus, this study is aimed at assessing the nutritional status and alcohol intake of commercial motor drivers in the Enugu North Local Government Area (LGA) of Enugu State.

METHODOLOGY

Areas of Study and Design

This cross-sectional study was conducted in commercial motor parks in Enugu North Local Government Area (LGA), Enugu State, Nigeria. Enugu North is one of the 17 Local Government Areas in Enugu State and is located in the heart of the city. It has an area of 106 km^2 and a population of 244,852 according to the 2006 census. The local government offers social and economic assistance to individuals and groups living within the districts. This LGA is comprised of four main districts, namely Amaigbo Lane, Onuato, Umunevo, and Ihenwuzi.

Study Population and Sample Size

Commercial drivers in designated parks in Enugu North LGA were purposively chosen to participate in the survey. In this usage, commercial drivers refer to bus and tricycle drivers.

Determination of Sample Size

The sample size was determined using Yamane's formula (19).

$$n = \frac{N}{1 + N(e)^2}$$

Where n = the sample size
N = Population size of the registered parks
d = desire level of precision at 5% = (0.05)

$$n = \frac{540}{1 + 540(0.05)^2} = 229.79$$

The sample size of 250 was used to take care of non-responses.

Inclusion and Exclusion Criteria

Only registered members of the National Union of Road Transport Workers (NURTW) who were between the ages of 20-59 years participated in the study. Availability and willingness of the respondents were considered, while those who did not meet these criteria were excluded from the study.

Ethical Considerations and informed consent

Permission was duly sought from the NURTW chairman of the park by verbal conversation before embarking on the research. Informed consent of the respondent was duly sought by explaining the aim and objectives of the study before their engagement. Verbal consent was sought before the administration of the questionnaire. They were assured that the information acquired would be kept secure and anonymous.

Sampling Procedure

The multistage sampling technique was as follows:

Stage 1: Five (5) registered parks namely;Holy Ghost Parks, Old Park, CPS, IMT Park, and New Market Parks were randomly selected out of the nine (9) parks.

Stage 2: Disproportionate stratified random sampling technique was used to select fifty (50) respondents from each park to attain two hundred and fifty (250) respondents.

The Instrument for Data Collection

The instrument for data collection consists of a modified and semi-structured interviewer's administered questionnaire called the Nutritional Status and Alcohol Consumption Questionnaire for Commercial Drivers (NSACQCD). The modified questionnaire consists of 4 sections as shown below:

Section A: Information on socio-demographic characteristics such as age, marital status, educational level, and ethnicity

Section B: Information on respondents' anthropometric characteristics such as height, weight, and Body Mass Index (BMI).

Section C: Information on food habits that involves a set of questions such as the number of times that one eats in a day, eating in-between meals, and so on.

Section D: Information on alcohol consumption patterns includes a set of questions such as; classes of alcohol consumed, reasons for drinking alcohol, frequency of drinking alcohol and so on.

Method of Data Collection

A semi-structured interviewer's administered questionnaire was used to obtain information from the respondents. Anthropometric method was used to assess nutritional status by the use of a locally constructed stadiometer and digital weighing balance to measure height (m) and weight (kg) respectively.

Data Analysis

The data was subjected to descriptive (frequency, mean, and standard deviation) and inferential statistics (Chi-square) at $p<0.05$ using Statistical Package for Social Sciences (SPSS) version 20.0.

RESULTS

Socio-demographic Characteristics of the respondents

The socio-demographic characteristics of the respondents as shown in table 1 showed that exactly 40 % of the respondents fell between the age group of 30-39 years, 24.4 % and 22.4 % were between the ages of 20-29 and 40-49 respectively, while the rest, 13.2 %, were between 50-59 years. Most of the respondents (71.6 %) were married. The educational level of the respondents revealed that more than half of the respondents (52.4 %) had secondary education. Exactly 28 % and 13.2 % had primary and tertiary education respectively. A minority (6.4 %) of them had no formal education. Almost all the respondents (98 %) were Igbo by the tribe.

Nutritional Status of the Respondents

The nutritional status of the respondents as indicated in table 2 showed that almost half (47.6%) of the respondents were overweight, 36.4 % were found to be normal weight, and 14.4 % were obese. The minority (1.6%) were underweight.

The Food Habits of the Respondents

The food habits of the respondents, as indicated in table 3, showed that the majority (53.6 %) ate twice a day and 53.2 % of them were found to skip meals. About 36.4 % of them skipped lunch, 10.8 % skipped breakfast and 6.8 % were found to skip dinner. The nature of the job/non availability of time made 23.3 % of the respondents skip meals, while 10 %, 7.2 %, 6 % and 7.2 % skipped meals because of lack of appetite, lack of money, weight control/health and fasting respectively**.** The result also showed that 79.6 %, 90.4 % and 71.2 % of the respondents ate in-between meals, bought food from vendors and took fruits daily respectively; 20.4 %, 9.6% and 28.8 % did not eat in-between meals, do not buy food from vendors and do not take fruits daily respectively. About 27.6 % of the respondents smoked, while the majority (72.4 %) did not smoke.

Table 1: Socio demographic characteristics of the respondents

Variables	Frequency	Percentage (%)
Age Group		
20-29	56	22.4
30-39	100	40.0
40-49	61	24.4
50-59	33	13.2
Total	**250**	**100**
Marital Status		
Single	71	28.4
Married	179	71.6
Total	**250**	**100**
Educational Level		
None	16	6.4
Primary	70	28.0
Secondary	131	52.4
Tertiary	33	13.2
Total	**250**	**100**
Ethnicity		
Igbo	245	98.0
Hausa	2	0.8
Ikwere	2	0.8
Efik	1	0.4
Total	**250**	**100**

Table 2: Body mass index of the respondents

Nutritional Status	Frequency	Percentage (%)
Underweight (<18.5 Kg/m^2)	4	1.6
Healthy Weight (18.5-24.9 Kg/m^2)	91	36.4
Overweight (25-29.9 Kg/m^2)	119	47.6
Obese (30 Kg/m^2 and above)	36	14.4
Total	**250**	**100**

Alcohol consumption of the respondents

Table 4 indicated the result of the alcohol consumption of the respondents. The majority of the respondents consumed beer (24.4 %), followed by stout (8.4%), palm wine (3.6 %) and spirits (0.8 %). About 12.4 % and 29.6 % consumed both stout and palm wine; beer and palm wine respectively. Among the respondents, 11.2 % consumed all the types of alcohol used in the study, while 9.6 % did not consume alcohol at all. About 64 % of them preferred to take alcohol after the day's work, 0.4 % consumed alcohol before the commencement of the day's work, 6 % liked to take alcohol during working hours, and 20 % consumed alcohol at any time of the day.

The major (40.8 %) reason for taking alcohol was for enjoyment, followed by dealing with frustration (20.4%), morale-boosting (16 %), alertness (9.2 %), stress reduction (2.8 %) and 1.2 % peer pressure. Out of 90.4 % of the respondents that consumed alcohol, 29.6 % were found to be heavy drinkers (consuming more than 5 bottles/day), 38.8 % were moderate drinkers (3-4 bottles/day), and 22.0% were mild drinkers (1-2 bottles/day). On the frequency of drinking, 29.2 % consumed alcohol 4-7 days/week; 37.2 % 2-3 days/week; 20.8 % 1 day/week and 3.2 % 2-3 days/month.

Association between socio-economic characteristics, nutritional status and alcohol consumption

Table 5 showed that there was a significant association between socio-demographic characteristics, alcohol consumption and nutritional status ($p<0.05$).

Discussion

It was established that the majority of the respondents were 30-39years old, married and Igbo by the tribe. This may be as a result of the study location and activities involved (20).Also, the majority of the respondents were overweight and this could be attributed to poor feeding habits in terms of skipping meals, snacking and indiscriminate purchase of food items from food vendors (21). Due to the nature of their work, they remain sedentary for a longer period of the day and feed mostly on junk. The combination of sedentary life and poor diet contributes to high levels of overweight and obesity among commercial drivers, though the psychosocial environment may also contribute (22). Being overweight could lead to obesity and subsequently to cardiovascular problems such as arteriosclerosis, type 2 diabetes, hypertension, and so on. Therefore, early intervention to correct this prevents unscrupulous consequences (23). This partially agreed with what was reported by(24)and (25) Obesity rates are highest among commercial drivers when compared to other occupations (26).

In addition to this, the majority of the respondents skipped their lunch as a result of the job they do. This could be true because most of the drivers leave the park early in the morning to carry their passengers to their various destinations and may not reach the last bus stop until evening time (27).

Almost all the commercial drivers at the motor park consumed alcohol. This is quite worrisome, especially when considering the reason for taking alcohol, as most of them consume it for enjoyment purposes. The results obtained in this study for consumption rate are higher than those of (28), (29) and (30). However, it is lower than the report of (31) among commercial drivers in Uyo LGA. Alcohol consumption has been linked to the onset of cardiovascular diseases (20,21,23). In this study, beer/palm wine and beer were the most patronized types of alcoholic beverages. Beer, also, happened to be the most patronized type of alcoholic beverage in the study conducted by(28)and (32). Also, in a similar study conducted among college students in Malawi, the proportion of respondents that consumed beer was higher and also agrees with the alcohol consumption pattern of the dwellers in Ibadan, where palm wine and beer were most patronized.(33)

This report can be used in alcohol control for both legal and market-related restrictions since beer has been established as the most commonly consumed in various studies. Therefore, control can be put in place on it to discourage its abuse by this group, especially at the motor parks.

The majority drink alcohol after work and this may be partly attributed to their socio-economic characteristics. Similarly,(29) and(28)reported the same time and premised it on the socio-demographic characteristics of the consumers. (34)established that commercial drivers in Ghana consumed alcoholic drinks early in the mornings before work and late in the evenings after the close of work. This may be due to their cultural practices. Also, more than half of those who consumed alcohol did so to derive pleasure and cope with frustration. There are similarities in the reasons for alcohol use between this study and other studies, (30, 29, 28), though in varying proportions.

It was established that the proportion of respondents who consumed fruit daily was high. This may be due to the location and availability of fruits at affordable prices (35). Fruits help to reduce oxidative stress that may result from excessive intake of alcohol, as reported in this study. It also slows down the progression of non-communicable chronic diseases that have been linked to alcohol abuse (36).

There was a significant association between educational level, ethnicity, nutritional status and alcohol consumption ($P<0.05$). But the direction of the association could not be established in this study. Although various studies have indicated the fact that a large intake of alcohol suppresses hunger, which reduces food intake and, consequently, deprives the body of essential nutrients (25). Alcoholics are recognized to have a poor diet due to disturbances in normal eating behavior, which may result in primary malnutrition (37). Alcohol, when consumed in large quantities, interferes with digestion, absorption, metabolism, and utilization of some nutrients (37). This malabsorption of nutrients from the diet may result in secondary malnutrition. In some individuals, cravings for unhealthy food increase (38, 39, 40)

CONCLUSION

The majority of the drivers were young adults (30-39years) and Ibo by the tribe. Alcohol consumption among commercial drivers in Enugu North Local Government was relatively high. The most popular alcoholic beverages were beer and palm wine. Most commercial drivers drink alcohol after work in the evening for pleasure and to cope with frustration. The respondents were also identified as having poor dietary habits. poor nutritional status, as the majority were either obese or overweight. There was a significant association between socioeconomic characteristics, alcohol consumption and the nutritional status of the respondents.

Recommendations

- There is a need for public health enlightenment and an aggressive media campaign on the health hazards of alcohol consumption among commercial drivers.
- Commercial drivers should be given regular nutrition education on good dietary lifestyles and making healthy food choices to enhance their optimal nutritional status.

- The Federal Government, through the Federal Road Safety Commission, should devise an effective policy to discourage driving under the influence of alcohol to prevent unwarranted motor accidents.

Table 3: Food habits of the respondents

Variables	Frequency	Percentage
No of times of eatingin a day		
Twice	134	53.6
Thrice	116	46.4
Total	**250**	**100**
Meal Skipping		
Yes	133	53.2
No	117	46.8
Total	**250**	**100**
Meal usually skip		
Breakfast	27	10.8
Lunch	91	36.4
Dinner	17	6.8
Not Applicable	117	46.0
Total	**250**	**100.0**
Reason for skipping meals		
Nature of job/No time	58	23.2
No appetite	25	10.0
Money Constraint	18	7.2
To control weight/Health reasons	15	6.0
Fasting	17	6.8
Not applicable	117	46.8
Total	**250**	**100**

Yes	199	79.6
No	51	20.4
Total	**250**	**100**
Purchase of food from vendors		
Yes	226	90.4
No	24	9.6
Total	**250**	**100**
Daily intake of fruits		
Yes	178	71.2
No	72	28.8
Total	**250**	**100**
Smoking cigarret		
Yes	69	27.6
No	181	72.4
Total	**250**	**100**
No of times of smoking in a day		
1-2 times	15	6
3-4 times	37	14.8
5-6 times	14	5.6
More than 6 times	3	1.2
Not applicable	181	72.4
Total	**250**	**100**

Table 4: Alcohol consumption pattern of the respondents

Variable	Frequency	Percentage
Consumption of alcohol		
Yes	226	91.4
No	24	9.6
Total	**250**	**100**
Classes of alcohol beverage consumed		
Spirit	2	0.8
Stout	21	8.4
Beer	61	24.4
Palm wine	9	3.6
Stout and palm wine	31	12.4
Beer and palm wine	74	29.6
Spirit, stout, beer, palm wine and local gin	28	11.2
Not applicable	24	9.6
Total	**250**	**100**
Time of use of alcohol		
Before day's work	1	0.4
During day's work	15	6
After day's work	160	64
Anytime of the day	50	20
Not applicable	24	9.6
Total	**250**	**100**
Reasons for drinking alcohol		
To keep alert	23	9.2
To cope with frustration	51	20.4

Table 4: Alcohol consumption pattern of the respondents cont.

To boost morale	40	16
For enjoyment	102	40.8
To be like others	3	1.2
To reduce stress	7	2.8
Not applicable	24	9.6
Total	**250**	**100**
Quantity consumed per time		
Heavy (More 5 bottles)	74	29.6
Moderate (3-4 bottles)	97	38.8
Mild (1-2 Bottles)	55	22.0
Not applicable	24	9.6
Total	**250**	**100**
Frequency of Drinking		
4-7 days/week	73	29.2
2-3 days/week	93	37.2
1 day/week	52	20.8
2-3 days/month	8	3.2
Not applicable	24	9.6
Total	**250**	**100**

Table 5: Association between socioeconomic characteristics, nutritional status and alcohol

Variables	**BMI**		**Alcohol consumption**	
	X^2	P-value	X^2	P-value
Educational level	66.83	0.03*	70.67	0.00*
Ethnicity	75.04	0.04*	47.27	0.00*

Consumption

X^2=Chi square, BMI- Body Mass Index. There is a significant association at p-value < 0.05

REFERENCES

1. Dumbili, E. (2013). Changing Patterns of Alcohol Consumption in Nigeria: An Exploration ofResponsible Factors and Consequences. *Journal of the BSA Medical Sociology*, 7:20-33.
2. Lasebikan, V.O. and Ola, B.A. (2016). Prevalence and Correlates of Alcohol Use Among a Sample of Nigerian Semirural Community Dwellers in Nigeria.*Journal of Addiction*, 6:15.
3. Lasebikan, V.O. and Baiyewu, O.(2011). Prevalence of Drinking and Driving in

Nigeria: Data from a Representative Motor Park Survey. African Journal Medical Science, 31:32–40.

4. Lasebikan, V.O. and Baiyewu, O. (2009). Profile of Problems Associated with Psychoactive Substance Use among Long Distance Commercial Automobile Drivers in Ibadan.*Nigeria Journal of Psychiatry*, 7(2):7–16.
5. Lasebikan, V.O. (2012). Alcohol: The Bad, the Good and the ugly. The Clinical Scientist: A Compedium of Faculty of Clinical Sciences Lectures, College of Medicine, University of Ibadan, 2:53–80.
6. Lasebikan, V.O. and Ola, B.A. (2016). Prevalence and Correlates of Alcohol Use Among a Sample of Nigerian Semirural Community Dwellers in Nigeria.*Journal of Addiction*, 6:1-5.
7. Mamman, L.S., Brieger, W.R. and Oshiname, F.O. (2002). Alcohol Consumption Pattern among Women in a Rural Yoruba Community in Nigeria. Substance Use and Misuse. Africa Journal Medical Science, 44(1):33–41.
8. Chikere, E.C. and Mayowa, M.O. (2011). Prevalence and Perceived Health Effect of Alcohol use among Male Undergraduate Students in Owerri, South-east Nigeria: A Descriptive Cross-Sectional Study. *BMC Public Health*, 11:118.
9. World Health Organization. (2011). Global Status Report on Alcohol and Health.; Available at: http://www.who.int/substanceabuse/publications/globalalcohol_report/msbgsruprofiles.pdf. Accessed May 2012.
10. Molina, P.E., Hoek, J.B., Nelson, S., Guidot, D.M., Lang, C.H. and Crawford, J.M. (2003). Mechanisms of an Induced Tissue Injury. Alcohol-induced Tissue Injury. Alcohol Clinical Experiment Research, 27(3):563-575.
11. Mayla, C., Fernandes, T., Aline, S. and Vilma, A. (2012). Alcohol: Effects on Nutritional Status, Lipid Profile and Blood Pressure. *Journal of Endocrinology Metabolism*, 2(6):205-211.
12. Asrani, S. K., Devarbhavi, H., Eaton, J. andKamath, P. S. (2019). Burden of liver diseases in the world. *Journal of hepatology*, *70*(1), 151-171.
13. Wang, F. S., Fan, J. G., Zhang, Z., Gao, B. and Wang, H. Y. (2014). The global burden of liver disease: the major impact of China. *Hepatology*, *60*(6), 2099-2108.
14. Matzopoulos, R., Cois, A., Probst, C., Parry, C. D. H., Vellios, N., Sorsdahl, K.andPacella, R. (2022). Estimating the changing burden of disease attributable to alcohol use in South Africa for 2000, 2006 and 2012. *South African Medical Journal*, *112*(8b), 662-675.
15. Ayala-Valverde, M., Arnold, J., Díaz, L. A., Idalsoaga, F., Arrese, M. andArab, J. P. (2022). Nutrition in Alcohol-Related Liver Disease. *Current Hepatology Reports*, 1-9.
16. Gopi, S., Qamar, S., Singh, N., Agarwal, S., Yegurla, J., Rana, A. and Saraya, A. (2022). Malnutrition by GLIM criteria in chronic pancreatitis: Prevalence, predictors, and its impact on quality of life. *Pancreatology*, *22*(3), 367-373.
17. Toffolo, F., Mayla, C., Aguiar- Nemer, A.S. and Silva-Fonseca, V.A. (2013). Alcohol: Effects on Nutritional Status, Lipid Profile and Blood Pressure. *Journal of Endocrinology Metabolism,* 2(6):205-211.
18. Niemelä, O., Bloigu, A., Bloigu, R., Halkola, A. S., Niemelä, M., Aalto, M. and Laatikainen, T. (2022). Impact of Physical Activity on the Characteristics and Metabolic Consequences of Alcohol Consumption: A Cross-Sectional Population-Based Study. *International Journal of Environmental Research and Public Health*, *19*(22), 15048.
19. Kasiulevičius V, Šapoka V. and Filipavičiūtė R (2006) : Sample size calculation in epidemiologicalstudies. *Gerontologija*, 7(4):225–31.
20. World Health Organization. (2018). Global Report on Health and Alcohol. Geneva, Switzerland: World Health

Organization.
21. Pham, L.T., Oksum, E., Vu, M.D., Vo, Q.T., Du Le-Viet, K. and Eldosouky, A.M. (2021). An improved approach for detecting ridge locations to interpret the potential field data for more accurate structural mapping: A case study from Vredefort dome area (South Africa). *Journal of African Earth Sciences*, 175:104099.
22. Sadler, C.R., Grassby, T., Hart, K., Raats, M., Sokolović, M. and Timotijevic, L. (2021). Processed Food Classification: Conceptualization and challenges. Trends in *Food Science and Technology,* 3:2-12.
23. Bodor, J. N., Rice, J. C., Farley, T. A., Swalm, C. M. and Rose, D. (2010). The association between obesity and urban food environments. *Journal of Urban Health*, *87*, 771-781.
24. Kader, M.A. (2020). Patient satisfaction with healthcare services: Bangladesh perspective. *International Journal of Public Health*, 9(1):34-45.
25. Mustapha, R.A., Bolajoko, O.O., Hammed, I.A. and Akinola, O.O. (2012). Perceived SocialBenefits, Effects of Cigarette Smoking and Alcoholic Beverages Consumption on Nutritional Status of Road Transport Workers in Lagos. IOSR Journal of Pharmacy and Biological Sciences, 3(1):14-8.
26. Adepoju, O.T. and Akinbode, O. (2019). Association of ParagaConsumption and Dietary Lifestyle on Nutritional Status of Commercial Drivers in Ibadan Municipality of Oyo State. *Nigeria Journal of Health Science*, 7:215-226.
27. Lewis, J. E., Arheart, K. L., LeBlanc, W. G., Fleming, L. E., Lee, D. J., Davila, E. P., ... & Clark Jr, J. D. (2009). Food label use and awareness of nutritional information and recommendations among persons with chronic disease. *The American journal of clinical nutrition*, *90*(5), 1351-1357.
28. Owens, M. R., Brito-Silva, F., Kirkland, T., Moore, C. E., Davis, K. E., Patterson, M. A., ... & Tucker, W. J. (2020). Prevalence and Social Determinants of Food Insecurity among College Students during the COVID-19 Pandemic. *Nutrients*, *12*(9).
29. Bello, S., Ndifon, W.O., Mpama, E.A. and Oduwole, O.O. (2011). Pattern of Alcohol Use among Drivers of Commercial Vehicles in Calabar. Nigeria. East African Medical Journal, 88(3).
30. Abiona, T.C., Aloba, O.O. and Fatoye, F.O. (2006). Pattern of Alcohol Consumption among Commercial Road Transport Workers in Semi Urban Community in South Western Nigeria.*East African Medical Journal*, 83(9):12-19.
31. Onodugo, O., Ezeala-Adikaibe, B., Anyim, O., Ezeme, M., Ijoma, U., Obumneme-Anyim, I.,Okoli, O., Onodugo, P., Okoli, P. and Ekenze, O. (2019). Prevalence and Pattern of Alcohol Use among Adults in an Urban Slum in South East Nigeria. Open Journal of Psychiatry, 9:179-191.
32. Akpan G, Ikorok M.(2014). The Prevalence of Alcohol Consumption among Commercial Drivers in Uyo Local Government Area, AkwaIbom State Nigeria,1(7):47– 51.
33. Kasapila, W. and Mkandawire, T. S (2010). Drinking and smoking habits among college students in Malawi. *Eur. J. Soc. Sci*, 15: 441-448.
34. Bennett, L.A., Campillo, C., Chandrashekar, C.R. and Gureje, O. (1998). Alcoholic BeverageConsumption in India, Mexico, and Nigeria: A Cross-cultural Comparison. *Alcohol Health and Research World,* 22(4):243–252.
35. Asiamah, G., Mock, C. and Blantari, J. (2002). Understanding the Knowledge and Attitudes of Commercial drivers in Ghana Regarding Alcohol Impaired Driving.*Journal of Injury Prevention,* 8:53-56.
36. Aniebu, P.N. and Okonkwo, K.O. (2008). Prevalence of Psychoactive Drug Use by Taxi Drivers in Nigeria.*Journal of College of Medicine*, 13:48-52.
37. LaRouche, L. (2007). The State of Our Union: The End of Our Delusion.*Executive Intelligence Review.*Saha, S.K., Lee, S.B., Won, J., Choi, H.Y., Kim, K., Yang, G.M.

and Cho, S.G. (2017). Correlation between oxidative stress, nutrition, and cancer initiation. *International journal of molecular sciences*,18(7):1544.

38. Santolaria, F., Gonzalez-Reimers, E. and Victor R.P. (2004). Alcohol and Nutrition: An Integrated Perspective. *Journal of Clinical Nutrition*, 25:119-135.

39. Hutcheon, J. A., Platt, R. W., Abrams, B., Himes, K. P., Simhan, H. N., & Bodnar, L. M. (2015). Pregnancy weight gain charts for obese and overweight women. *Obesity*, *23*(3), 532-535.