



Prevalence of Hypertension among Traders in International Market on Orlu Local Government of Imo State

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

Editor(s):

(1) Dr. Carla Maria Ferreira Guerreiro da Silva Mendes, Nurse Director at Centro Hospitalar de Setúbal, Portugal.

Reviewers:

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(2) Nadryhailo Tetiana Dniprovsk State Technical University, Ukraine.

Complete Peer review History: <https://www.sdiarticle4.com/review-history/75145>

Original Research Article

Received 12 August 2021

Accepted 22 October 2021

Published 26 October 2021

ABSTRACT

The study dwelt on practice of prevalence of hypertension among traders in international market in Orlu Local Government Area of Imo State. The study adopted a descriptive design with a population of 300 traders and all 300 for data collection. The researcher developed three research questions and formulated one null hypothesis. The sampling technique adopted was a simple random sampling method. A well-structured questionnaire was the instrument need for data collection which was validated by two experts in Measurement and evaluation and the supervisor who is an expert in research methods. The collected data were analyzed using the frequency and percentage score statistic while the mean score statistics and correlation method was used to establish the relationship posed in the null hypothesis. Results obtained from the analysis revealed that 100% of the respondent knows about hypertension, majority of the respondents had a good blood pressure value. Some recommendations were proffered among which are: eating adequate diet that is low in sodium, reducing the intake of alcohol and stress management, also hypertensive patients/traders should make sure they try to heed to the instructions of their health care providers, as going for hospital treatment when it develops is not the best option.

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Keywords: Practice; prevalence; hypertension; traders.

1. INTRODUCTION

Hypertension, also known as high or raised blood pressure (BP) is a global public health challenge. Hypertension is a chronic medical condition in which the BP in the arteries is elevated. The higher the pressure in blood vessels the harder the heart has to work in order to pump blood, thus making the heart to work too hard. It is popularly known as the "silent killer," because it has no specific sign and symptoms in the initial stage [1].

According to the World Health Organization (WHO), the prevalence of hypertension is highest in the African Region at 46% of adults aged 25 years and above, while the lowest was found in the American region. High prevalence of hypertension has been reported in some recent studies conducted in Nigeria. Hypertension is the most common non-communicable disease in Nigeria. Hypertension and its complications constitute approximately 25% of emergency medical admissions in urban hospitals in Nigeria. It is the most frequently diagnosed cardiovascular disorder in Nigeria [1].

Studies have assessed the prevalence of hypertension in diverse populations with varying findings. For instance, the prevalence of hypertension appears to be much higher in developing countries. In countries in Sub-Saharan Africa, factors such as poor access to health information and services, and low socio-economic status have been reported to contribute substantially to the high prevalence of hypertension. Regarding socioeconomic status, especially in terms of level of education, and occupation, low level of education low income and stressful life occupations have been linked with the prevalence of hypertension [2,3].

Hypertension can be grouped as either primary (essential) or secondary majority (90%) of all cases of hypertension is primary hypertension and the remaining 10% of cases are usually secondary hypertension. Secondary hypertension occurs as a result of underlying disease such as kidney disease, CVD, coronary heart disease, etc. The exact cause of primary hypertension is idiopathic; it can be predisposed by certain condition. These factors can be classified into non modifiable and modifiable risk factors. The non-modifiable risk factors include age, sex, race, family history, genetic

composition. On the other hand, the modifiable risk factor includes obesity, excessive salt intake, inactivity or lack of exercise. The risk for high blood pressure increase in men over age 44years and women over the age of 55 years [4,5].

Therefore hypertension may remain undetected and undiagnosed until it results in catastrophic events. Information on prevalence of hypertension among traders in international market in Orlu Local Government Area of Imo State therefore deserves particular attention in the literature especially as such information will assist in planning strategies for effective prevention, diagnosis, treatment and control of hypertension.

2. AIM

The aim of the study is to ascertain the prevalence of hypertension among traders in international market in Orlu Local Government Area of Imo State. The specific objectives are to:

3. RESEARCH METHODOLOGY

3.1 Research Design

The researcher used the descriptive design in conducting the study.

3.2 Area of Study

The research study was conducted in Orlu International Market, Orlu L.G.A in Imo State.

3.3 Target Population

The target population of this study comprised of traders among Orlu International Market. The total number of traders is estimated to be three hundred (300) who provides services.

3.4 Sampling and Sampling Technique

A simple random sampling method was adopted to select the one hundred and twenty traders in Orlu International Market. The sample random sampling method allows for the random selection of study participants based on chance. This helped in the easy generalization of the study to a larger population.

3.5 Instrument of Data Collection

The instrument used for data collection in this study was a structured questionnaire formulated from the objectives and a way that all the research questions were answered. All questions are closed-ended. The Questionnaire was made closed five (5) parts:

- PART 1:** This section of the study contained information about the study, its nature, usefulness of required information and confidentiality assured to the respondents on every information provided by them.
- PART 2:** This section comprised the respondents' demographic data and other personal data required for the study.
- PART 3:** This part is made up of the level of awareness of this disease (Hypertension) among the traders.
- PART 4:** This part is made up to ascertain the blood pressure value amongst traders.
- PART 5:** This part is made up of risk factors associated with hypertension among traders.

3.6 Validity of Instrument

Validity is the degree to which an instrument measures exactly what it is suppose to measure. The questionnaire used for the research was cross checked by the researcher supervisor who is a research expert. The contents validity was achieved by ensuring that all the questions asked are based on the research questions.

3.7 Reliability of Instruments

The reliability is defined as the consistency which the instrument does what it is suppose to do. In checking for the reliability of the instrument, a pre- test was conducted among traders which

are not among those that were selected by the researcher in the sample to ascertain the reliability of the research instrument. A total of 12 questionnaires were given to 12 respondents who were drawn from Orlu daily market at total junction for this purpose. The reason was to determine whether the responses would be in line with the required result expected form the instrument. Then another set of same questionnaire were re-administered to the same 12 traders. A week later, the responses were obtained and recorded using Pearson's product moment correlation coefficient (PPMCC) as the technique for analysis. The two scores obtained from the test and re-test procedure was calculated using (PPMCC) and the reliability index of 0.84 was obtained which shows that the instrument is positivity reliable.

3.8 Method of Data Collection

The respondents are traders. They were selected from several sections of the market and the distribution of the questionnaires lasted for 5 days as the researcher intends to cover the population. A total of 120 questionnaires were distributed and 120 were fully completed and returned. Information obtained from the respondents was used to make a general statement about hypertension among traders in Orlu International Market.

3.9 Method of Data Analysis

The simple frequency distribution and simple percentage method were adopted in the data analysis of the study. In this study, the statistical software used to analyze the data is the statistical package for social sciences (SPSS). The rationale using this software is anchored on the fact that the primary data was used for the research and it gives comprehensive and qualitative clarifies to the study.

4. RESULTS

Table 1. Distribution of respondents by age

Age (Years)	Frequency
18-25	36
26-35	65
36-45	71
46-55	82
56 and above	46
Total	300

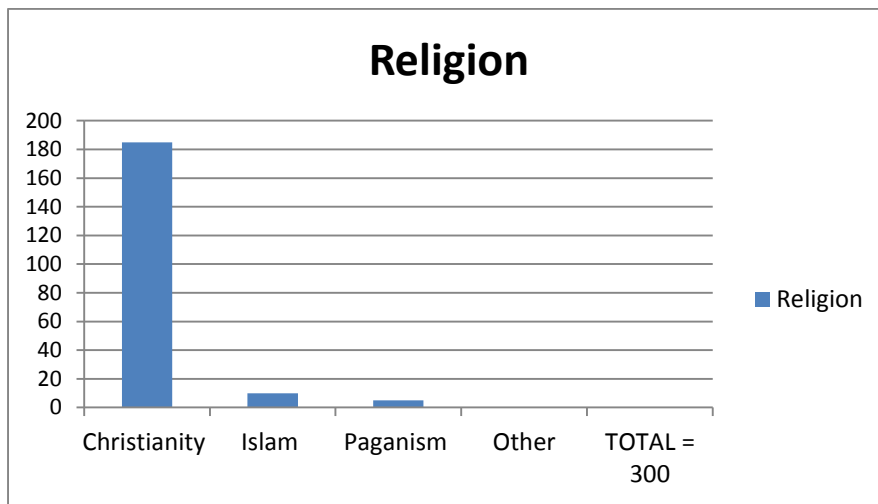
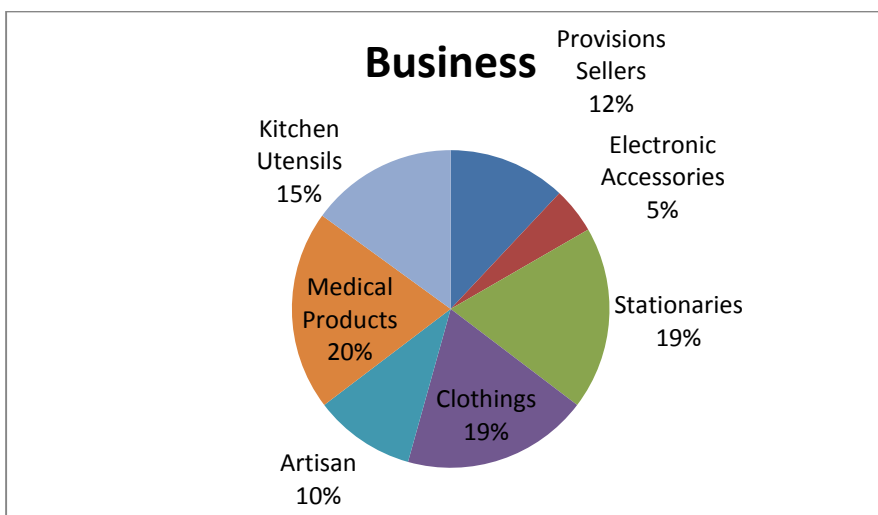


Table 1 shows that respondents of age brackets 18-25 were 36 in number, those of 26-35 years were 65 in number, those between 36-45 were 71 in number, those of 46-55 were 82 and those between 56 years and above were 46 in number.

Table 2. Distribution of the respondents by business

Business	Frequency
Provisions Sellers	36
Electronic Accessories	14
Stationaries	56
Clothings	57
Artisan	31
Medical and pharmaceutical Products	61
Kitchen Utensils and food stocks	45
Total	300

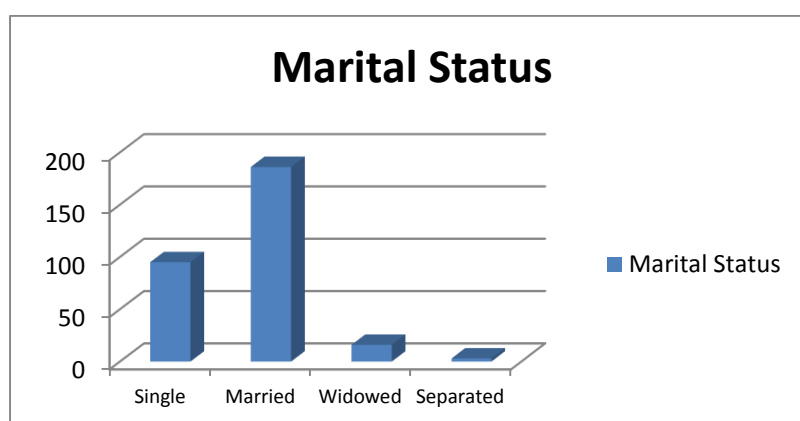


Pie Chart

The pie chart table above shows that respondents business were 300 in number, those who are into sells of provisions were 36 in number, those who are into electronic accessories were 14 in number, those into Stationaries were 56 in number, those into clothing were 57 in number, those who are artisans were 31 in number, those in medical products were 61 in number and those into kitchen utensils and food stocks were 45 in their number.

Table 3. Distribution of respondents by marital status

Marital status	Frequency
Single	95
Married	186
Widowed	16
Separated	3
Total	300

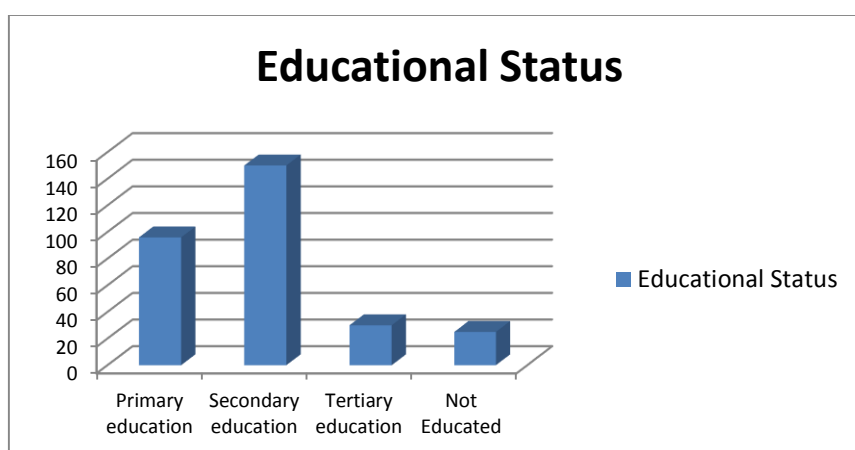


Bar Chart

The Table 3 above shows the marital status of respondents. The respondents that are single were 95 in number; those that are married were 186 in number, those that widowed were 16 in number while those that are separated and/or divorced were 3 in number.

Table 4. Distribution of respondents by educational status

Educational status	Frequency
Primary education	96
Secondary education	150
Tertiary education	30
Not Educated	25
Total	300

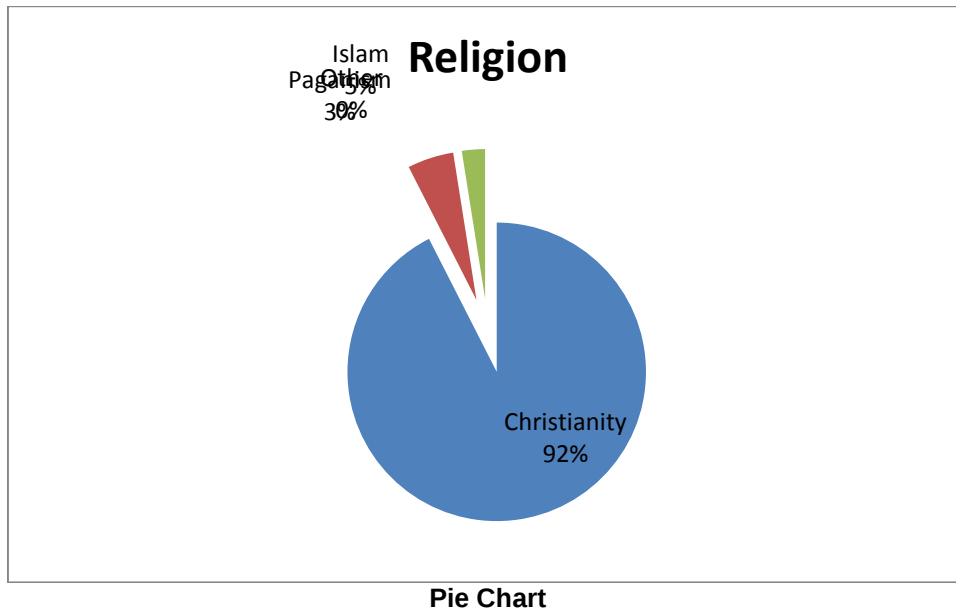


The Bar Chart

Table 4 depicts respondents' educational status. Those who stopped at the Primary School level were 95 in number, those who graduated at Secondary School level were 150 in member, and those who attended tertiary Institutions were 30 in number while those who had no educational qualifications were 25 in number.

Table 5. Distribution of respondents by religion

Religion	Frequency
Christianity	185
Islam	10
Paganism	5
Other	0
Total	300



The pie chart above shows the religion inclinations of respondents. The chart shows that respondents whose religions are Christianity were 185 in number, those whose religions is Islam were 10 in member, those who are of paganisms were only 5 in number while those who are of other religious inclinations were not identified. This implies that respondents who are Christians formed the actual population for the study.

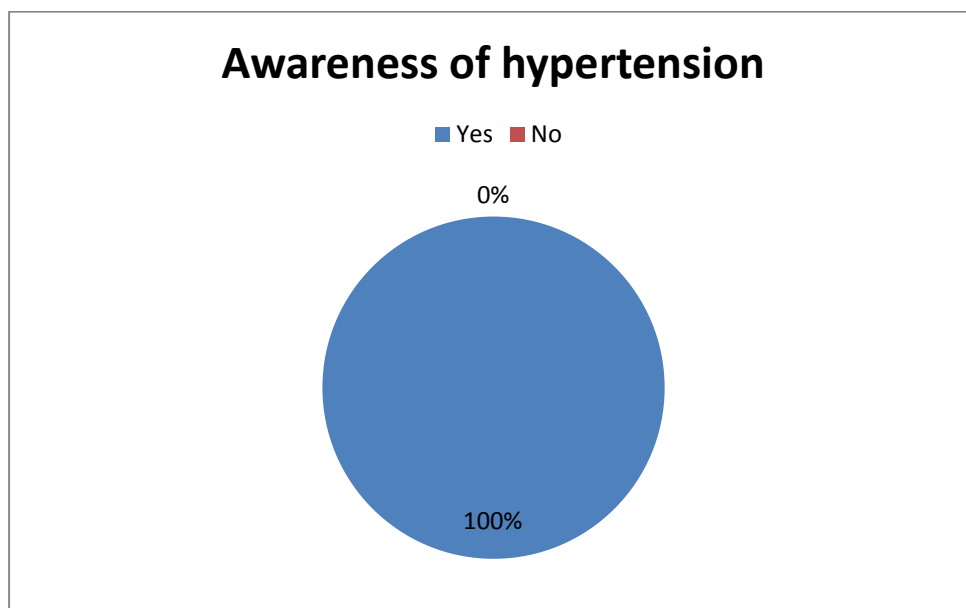


Fig. 1. Pie Chart depicting the Awareness or knowledge of hypertension

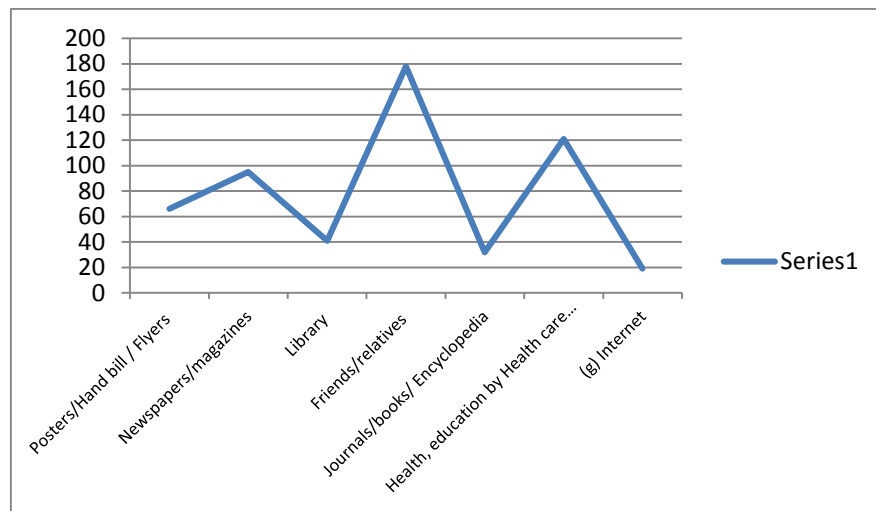


Fig. 2. Line Chart depicting the source of information on hypertension

Table 6. List of source of information and their percentage

What was your source of information?	Percentage			
	Yes	%	No	%
Posters/Hand bill / Flyers	66	11	234	89
Newspapers/magazines	95	15.8	205	84.2
Library	41	6.8	259	93.2
Friends/relatives	178	63	122	37
Journals/books/ Encyclopedia	32	5.3	268	94.7
Health, education by Health care providers	179	55.5	121	46.5
Internet	19	3.2	281	96.8

Table 7. Revealing the first diagnosis and confirmation of hypertension

S/N	Question Item	YES	%	NO	%
3	How did you come to know about your hypertension?				
	(a) In a routine medical control	208	84.7	92	15.3
	(b) Screening programme	11.1	18.5	289	81.5
	(c) Emergency service	146	24.3	254	75.7
	(d) When you fell ill	57	9.5	243	90.5

The Fig. 1 shows that out of 300 traders, all (100%) have heard or are knowledgeable about hypertension.

Fig. 2 shows that 63% and 55.5% response respectively accepted friends/relatives and health education by health care providers as their possible sources of information.

On how one knows He/She first got diagnosed of Hypertension, and when they confirmed the diagnosis 208 or 84.7% response accepted it was from the routine medical examination, furthermore, 215 respondents or 69.2% response agreed that they normal go to the primary health centers for checkups.

Blood pressure values	Frequency
100/70	65
110/80	38
120/80	98
130/90	71
140/90	18
140/100	10
160/120	0

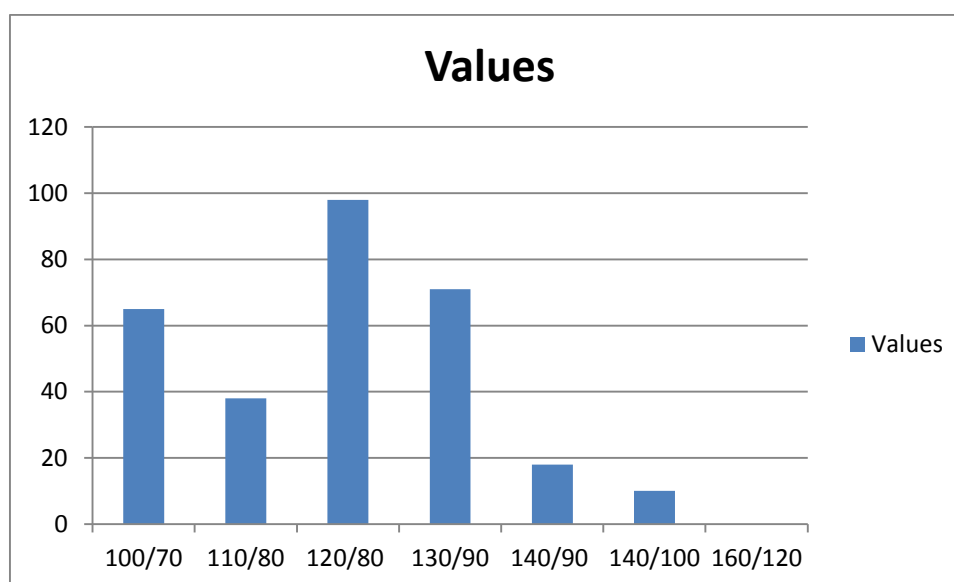


Fig. 3. Bar Chart showing the blood pressure values of traders in International Market Orlu.

Table 8. Showing the percentage frequency score analysis

S/N	Question Items/Options	Yes	%	No	%	Remark
12	In your opinion is hypertension a serious problem in your community?	176	62.7	124	37.3	Accepted
13	Do you think hypertension is a communicable disease?	58	9.7	242	90.3	Rejected
14	Do you have blood relatives with history of hypertension?	246	74.3	54	25.7	Accepted
15	Which of these do you consider as the risk factors for hypertension? (things that may increase the possibility of one having hypertension).					
	Age	233	88.8	64	11.2	Accepted
	Race	173	54.5	127	45.5	Accepted
	Family history	271	95.2	29	4.8	Accepted
	Being overweight or obese	208	68	92	32	Accepted
	Not being physically active	191	51.5	109	48.5	Accepted
	Using tobacco	216	86	84	14	Accepted
	Too much salt in one's diet	169	55.2	131	44.8	Accepted
	Too little potassium in the diet	222	70.3	78	29.7	Accepted
	Drinking too much alcohol	155	57.5	145	42.5	Accepted
	Stress	194	65.7	106	34.3	Accepted
	Certain chronic conditions like kidney disease, diabetes and sleep apnoea	69.3		30.7		Accepted
	Cummulative Mean					

Table 9. Correlational analysis on the relationship between grades of hypertension and level of awareness

S/N	Variable	Total Score	X	R	Remark
1	KNL	4419	441.9	-0.44	Moderate -Ve relationship
2	RF	4156	415.6		

On what are the blood pressure values of trader, it was found that 98 (67%) respondents had a value of 120/80 which is normal showing that the population is healthy.

Table 8 shows responses on the risk factors associated with hypertension among traders. In the one w No.12, 396 respondents representing 62.74 response accepted that hypertension is a serious problems in their communities, while 94.2 or 90.3% response accepted that hypertension is not a communicable disease on whether any of their relatives is hypertensive representing, 446 respond 74.3% response said yes to it while 25.7% Said No. Lastly, on which of the options listed out in them No.15 is a risk factor of getting hypertension a cumulative mean score of 69.3% response accepted all the listed options as risk factors in hypertension.

Table 9 shows an average mean score of 441.9 for grades of hypertension and 415.6 for level of awareness. The analyzed result reveals a correlation of -0.44 with indicates a moderate negative relationship.

4. DISCUSSION

Findings from the analysis of this research question reveal that 300 respondents representing 100% accepted they have heard of hypertension before and that their sources in formation is through friends/relatives and health education by health care providers. On what they understood by the concept hypertension, 213 or 85.5% response accepted hypertension is when the blood pressure is over 140/90mmHg.

Findings to the analysis in this research question reveals that 65 respondents had a value of 100/80, 39 respondents had a value of 110/80, 98 respondents had a value of 120/80, 71 respondents had a value of 300/90, 18 respondents had a value of 140/90, 10 respondents had a value of 140/100 and 0 respondents had a value of 160/120.

Findings to the analysis in this research question reveals that 276 respondents representing 62.7% response accepted that hypertension is a serious health problem in their Community and further said that hypertension is not a communicable disease as claimed by 90.3% response On the risk factors associated with hypertension, a cumulative average percentage of 69.3% accepted all the options in this segment such options accepted include: Age, Race, Family

history, Being overweight or obese, Not being physically active, Using tobacco, Too much salt in one's diet, Too little potassium in the diet, Drinking too much alcohol, Stress, Certain chronic conditions like kidney disease, diabetes and sleep apnone [6].

5. CONCLUSION

This study has carefully dealt on the prevalence and awareness level of hypertension among traders, the risk factors associated with the disease as well as the possible ways of prevent and controlling hypertension and its adverse effects. The study revealed to us that majority of people accepted they had knowledge of hypertension through their friends and relatives as well as through health education programmes mounted by health care providers. They said they understood hypertension as a raise or elevation of blood pressure above 140/100Hgmm. The finding also reveals that hypertension is caused by poor dietary conditions in the body, age and intake of tobacco and alcohol. It was also established that though hypertension is never a communicable disease, it is a very serious health problem in the wide world cause by Race, Family history, Being overweight or obese, Not being physically active, Using tobacco, Too much salt in one's diet, Too little potassium in the diet, Drinking too much alcohol, Stress, Certain chronic conditions like kidney disease, diabetes and sleep apnone. Hypertension is however a preventable and manageable disease if all necessary preventive measures are appropriately heeded to.

ETHICAL APPROVAL

All ethical standards pertaining to human research were carefully considered in this study. The researcher obtained a letter of introduction and permission from the Head of Department of Nursing Sciences, Imo State University and submitted to the Chairman of Orlu International Market to obtain permission for the study. The topic of the research was introduced and instructions were given on how the questionnaires were to be filled.

CONSENT

Voluntarily participation of respondents was ensured. Respondents who were not literally enough were assisted in filling the questionnaire. The researcher reassured the participants that all information would be only for academic purpose

so as to maintain confidentiality and privacy. No names were recorded as part of the personal data collection. Participation in the study was voluntary and no negative action was taken against those who refused to participate. The respondents were informed that they had the right to withdraw their participation at any stage of the study.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Ajayi I, Sowemimo I, Akpa O, Ossai N. Prevalence of hypertension and associated factors among residents of Ibadan-North Local Government Area of Nigeria. *Nigeria Journal of Cardiology*. 2019;13(1).
2. Obeagu EI, Eziukwu K, Ogbodo OR, Odo MC, Udochukwu AU. Lipid profile in hypertensive patients receiving treatment in federal medical centre Owerri, Nigeria. *International Journal of Research and Reviews in Pharmacy and Applied Science*. 2013;3(4):544-553.
3. Obeagu EI. Changes in iron status of hypertensive patients. *International Journal of Research Studies in Medical and Health Sciences*. 2020;5(2):06-14.
4. Nwovu AI, Obeagu EI, Obeagu GU, Nnadiokwe OI. Evaluation of platelet and prothrombin time in hypertensive patients attending clinic in Federal Teaching Hospital Abakaliki. *Open Access Blood Research & Transfusion Journal*. 2018;1(5):001-003.
5. Nnatuanya IN, Obeagu EI, Nnatuanya CIC, Ogar OA, Stephen EC. Evaluation of alpha one anti-trypsin and haptoglobin in hypertensive patients in Elele. *Transl Biomed*. 2017;8(4):131.
6. Burnier M, Egan B. Adherence in hypertension. A Review of Prevalence, Risk Factors, Impact, and Management; 2019.

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Peer-review history:

The peer review history for this paper can be accessed here:

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