PREVALENCE, RISK FACTORS AND SOCIO-DEMOGRAPHIC CHARACTERISTIC OF HYPERTENSION AMONG TRADERS IN SABO MARKET, SAGAMU, OGUN STATE NIGERIA

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ABSTRACT

Hypertension is regarded as a major public health problem and it is a major threat to the health of the adults. This study examined the prevalence, risk factors and socio –demographic characteristics of hypertension among traders in Sabo market. A descriptive survey design was adopted for this study and a stratified sampling technique was used to select 100 traders in Sabo market, Sagamu, Ogun state, Nigeria. A structured interview was administered and measurements of blood pressure, weight, height and body mass index (BMI) of participants were taken. Data collected were analysed using descriptive statistics, chi-square and regression analysis statistics at 0.05. The result revealed that the prevalence rate of hypertension is high and the common risk factors among participants include Family history of hypertension and Family history of diabetes mellitus or insipidus. Finally, socio-demographic characteristic, such as Age and Sex shows a level of significant with the prevalence of hypertension and identified age as a major predictor of hypertension. It is therefore recommended that, recreational facilities should be provided for the community to encourage people to involve in activities that can promote health.

Keywords: Hypertension; Risk factors; Prevalence, Socio Demographic

Introduction

Hypertension (HTN) also known as high blood pressure (HBP), is a long-term medical condition in which the blood pressure in the arteries is persistently elevated. (Rabi et al., 2011) Hypertension is one of the most common medical disorders, which is associated with an increased incidence of all-cause and cardiovascular disease mortality. (Ortiz et al., 2014) Hypertension has for long been globally recognized as the most prevalent cardiovascular disease and major risk factors in the development of coronary heart disease, stroke, congestive heart failure and renal insufficiency. (Ganguly & Alam, 2015) Hypertension is regarded as a major public health problem and it is an important threat to the health of adults in Africa. (Vijver et al., 2014) Emerging evidence identifies hypertension as a major cause of morbidity and mortality globally including sub-Saharan Africa. (Ekwunife & Aguwa, 2011)

Several community surveys indicate that the prevalence of hypertension in Nigeria has increased from 11.2% in the 1990s to 27.9% in 2010.(Ogah et al.,2011) Over 95% of hypertension is of unknown etiology (essential hypertension) while secondary hypertension accounts for 5% or more of cases, this small fraction represent thousands of patients.(Hall et al., 2012) In Africa, Nigeria inclusive, Hypertension has reached near epidemic proportions.(Colosia, Palencia & Khan, 2013) The World Health Report in 2008 documented Hypertension as accounting for 9.2% of total death in the Africa region in 2001.(Lim et al., 2012) The number of disability adjusted life year lost to the ailment in sub-Saharan Africa rose from 5.3million for men and 6.3million for women in 1998 to 6.5million and 7.9million respectively by 2008. (Pradeepa, 2013) In both the United States (US) and the United Kingdom (UK) the prevalence of morbidity and mortality associated with hypertension is much higher in Blacks than in Whites.(Bidulescu et al., 2015) In the US, the prevalence for hypertension among Blacks is 40.5% as compared to 27.4% among Whites (Non Communicable Diseases Committee, 2009).(keadle et al 2016). Similarly, in the UK Blacks has a higher prevalence of hypertension than Whites. (Chiu et al., 2015) Black Caribbean men and women had higher prevalence rates (38.4% and 31.7%) than the general population (31.7% and 29.5%). (Choi, 201) How true is this finding, this study is therefore directed at determining the prevalence, risk factors and socio-demographic characteristic of hypertension among traders in Sabo market.

Methodology

A descriptive cross-section survey design utilized for this study. This study was conducted among Traders in Sabo Market, Sagamu, Ogun State Nigeria in 2019. The target population for this study comprised of all traders' males and females in Sabo market, Sagamu. The total population is 223. The sample size was determined using Slovin's formula, n_0= sample size, population size (N) = capacity shops

market, and margin of error (e) = 0.05, with confidence level of 95%. Stratified sampling method was used to select 100 participants; this ensures that subgroups in the population (gender, race, tribe and religion) were adequately represented.

The Inclusion criteria were as follows:
traders who were willing to participate in the study and consented after carefully going through a detailed procedure of bioethical principles in conducting research studies on human participant. Patients who were officially registered with the council of the local government and confirmed with their identification card. The exclusion criterion was any trader with comorbidities that could limit him or her ability in participating in the activities involved in the study was excluded.
The instrument for data collection is a self-developed and structured questionnaire which consisted of closed ended question. The questionnaire was divided into three sections. Section A focused on socio- demographic characteristics of the participants while section B elicited information on the risk factors, section C was to find the prevalence of hypertension among traders in Sabo market

To ensure the validity of the instrument, copies of the self-developed structured questionnaire were presented to other researchers and statistician for content and construct validity.

The reliability test was conducted among traders in Ilishan- Remo. 20 questionnaires were given to the traders to fill. Test retest method was used, while Cronbach Alpha was used to analyse the data and a co-efficient reliability score of 0.75 was obtained which indicated high reliability of the instrument. Other Instruments and equipment used in taking the measurement are; sphygmomanometer, stethoscope, Weighing Scale and Audiometer. The measurement of the blood pressure was taken with the standard mercury sphygmomanometer of cuff size 13cm x 25 which is in conjunction with the cardiac society of Britain and the American heart association specification of 12 – 13cm for adults. The readings were taken with the patients sitting down and the sphygmomanometer at the level of their apex beat. Those with blood pressure that fall within the normal range were taken once. For those who have their blood

pressure within stage 1 and 2 hypertensions were re-checked after 4 hours and 24 hours later. Body weight and height were measured without shoes. The body mass index (BMI) was calculated as the weight in kilograms divided by the height in meters squared.

The data obtained were coded and analysed using the Statistical Package for Social Science (SPSS) version 21.00 statistical software (IBM corp. released 2012. IBM SPSS statistics for widows, version 21.0 Armonk, NY: IBM Corp). Variables and research questions were analysed using descriptive and t-test statistics.

Ethical approval for this study was obtained from the market administrators (6 administrators) to obtain permission to collect data for the study. In line with the Belmont report, the researcher strived to do no harm to participants. Consent form was given to the participants to seek written consent and verbal consent, the reasons for conducting the research were explained to the participants and their confidentiality assured before data collection.

Results
Table 1 showed the demographic characteristics of traders in Sabo market as follows: -
The age of respondents showed that 2% of the participants are within the ages of 18-25yrs, 12% within 26-33yrs, 13% within 34-41yrs, 17% within 42-49yrs, 17% within 50-57yrs and 22% within 58-65yrs and 17% above 66years. Sex of respondents showed that 39% of respondents are male while 61% are females. 33% of respondents had no formal education, 31% had primary school education, 19% had Secondary School education, 8% had general Certificate while 9% had Tertiary education. The marital study revealed that 4% of the respondents are single, 58% are married, 12% divorced, 20% widowed and 6% separated. The religion showed that 54% are Christians, 44% Muslims and others 2%. The tribe revealed that 77% are yoruba, Hausa 13% and Igbo10%

Prevalence of hypertension among Traders in Sabo Market is reported in table 2: it shows that 34 participants (34%) were within normal range, 25 participants (25%) were at pre-hypertension stage, and 31 participants (31%) were already in stage I hypertension while 10 participants (10%) were in stage II hypertension. This study implies the prevalence rate of hypertension is high.

Table 1: Demographic Data of Hypertension Among Traders in Sabo Market, Sagamu, Ogun State Nigeria, 2019.

Variables	Attributes	Frequency (%)
Age	18-25yrs	2 (2.00)
	26-33yrs	12(12.00)
	34-41yrs	13(13.00)
	42-49yrs	17(17.00)
	50-57yrs	17(17.00)
	58-65yrs	22(22.00)
	Above 66yrs	17(17.00)
Sex	Male	39(39.00)
	Female	61(61.00)
Educational Background	No formal education	33(33.00)
	Pry School Certificate	31(31.00)
	Secondary School	19(19.00)
	Certificate	8(8.00)
	Tertiary education	9(9.00)
Marital Status	Single	4(4.00)
	Married	58(58.00)
	Divorced	12(12.00)
	Widowed	20(20.00)
	Separated	6(6.00)
Religion	Christianity	54(54.00)
	Muslim	44(44.00)
	Others	2(2.00)
	Yoruba	77(77.00)
Tribe	Hausa	13(13.00)
	Igbo	10(10.00)
	Total	100(100.00)

Table 2: Showing Prevalence of Hypertension Among Traders in Sabo Market, Sagamu, Ogun State Nigeria, 2019.

Variables	Frequency (%)
Normal	44(44.00)
Pre-hypertension	25(25.00)
Stage 1 hypertension	21(21.00)
Stage 2 hypertension	10(10.00)
Total	100(100.00)

Table 3: The risk factors of participants with high blood pressure as observed in this study are that 21% had family history of hypertension, 5% had history of pregnancy induced hypertension, 10% had family history of diabetes mellitus and 5% are known diabetic patient present with sign and symptom of hypertension. Further findings showed that 5% smoked and lastly 4% are overweight. This study concludes that the common risk factors among participants include Family history of hypertension and Family history of diabetes mellitus or insipidus

Table 3: Risk Factors of Participants with High Blood Pressure Among Traders in Sabo Market, Sagamu, Ogun State Nigeria, 2019.

Variables	Total (n)	PRESENT (%)	ABSENT (%)
Family history of hypertension	36	21	10
History of pregnancy induced hypertension	6	5	1
Family history of diabetes mellitus or insipidus	18	10	8
Known diabetic mellitus patient	7	5	2
Lack of Exercise	22	2	20
smoking of cigarette (used of tobacco)	5	3	2
Overweight	6	4	2

Regression analysis of Hypertension based on age, sex, educational background, marital status and tribe among Traders in Sabo Market is reported in table 4: it shows an overall level of significance with score of (t=11.128; p≤ 0.001). The regression analysis shows that age of the participants as a major predictor of hypertension among traders in Sabo market, with the score of (t=2.061; p=0.042) at 0.05 level of significant.

Table 4: regression analysis of Hypertension based on age, sex, educational background, marital status and tribe among Traders in Sabo Market, Sagamu, Ogun State Nigeria

Model	Regression coefficient	T	Sig.
Age	29.925	11.128	.000*
Sex	.439	2.061	.042*
Level of education	.057	.069	.945
Marital status	-1.099	-1.368	.174
Tribe	-1.35	-.491	.625

Dependent Variable: Hypertension Development, * =significant

Discussion

This study assesses the prevalence, risk factors and socio-demographic characteristic of hypertension among traders in Sabo market. Study observed that majority of the participants are within 42-49yrs and 50-57yrs. Majority of the participants are females with no formal education and primary school education. Further findings showed that majority are married are Christians. The tribe revealed that majority of participants are Yoruba.

Our study revealed that the prevalence rate of hypertension is high. This study in support of Ogah et al., (2011) who reported that several community surveys indicate that the prevalence of hypertension in Nigeria has increased from 11.2% in the 1990s to 27.9% in 2010. The findings from this study is similar to the one reported by Adeoye et al., (2015) where they projected an increase of hypertension among people aged at least 20 years with a prevalence of 30.8% (24.5, 33.7) in both sexes - 32.6% (27.3, 38.2) among men and 29.0% (21.9-32.2) among women in year 2030 and Singh et al,. (2017) the prevalence of raised blood pressure was high in both men and women.

This study revealed that the common risk factors among participants include Family history of hypertension and Family history of diabetes mellitus or insipidus. This does not agrees with a study of Steyn et al., (2008) that found out that high risk of hypertension is associated with older age groups, overweight and obese people, excess alcohol use, and a family history of stroke and hypertension This study is not in line with Olack et al., 2015) who reported that BMI, abdominal obesity; tobacco use, alcohol use, and physical activity were significantly associated with the hypertension.

Finally, socio-demographic characteristic, such as Age and Sex shows a level of significant with the prevalence of hypertension and identified age as a major predictor of hypertension. This study agrees with Steyn et al., (2008) that found out that high risk of hypertension is associated with less than tertiary education, older age groups. This study agrees with Olack et al., (2015) that found marital status, education, occupation, socioeconomic status, BMI, abdominal obesity; tobacco use, alcohol use, and physical activity were significantly associated with the hypertension.

Conclusion

In conclusion the Prevalence and risk Factors of Hypertension is considerably high in the study population. There are also some risk factors they are exposed to like lack of exercise, family history and sedentary lifestyle. Then it was discovered that blood pressure increases with age. Therefore, the Nurse should utilize her skills and knowledge in adequate delivery of information about hypertension to patient, family members and community at large, having in mind that the knowledge helps the individual to know their blood pressure level and assist them to cope and adapt to the situation. Also, the theoretical framework adopted for this study by the Dorothea Orem explain the functions of the nurse to provide health education on the practice of activities that individual initiated and perform on their own in maintaining life, health and well-being and caring for themselves in order to prevent or minimize the occurrence of diseases. Moreover, the study supports the nursing model which has various level of prevention like avoidance of risk factors and adaptation to maintain life. It can be concluded that age, social habit/lifestyle, body weight and lack of exercise play important role in predisposition to

the disease among traders. Hypertension increases with age and there is high prevalence of hypertension among the traders. These findings are crucial for evidence-based decision making. It will help policy makers for planning of preventive and control measures of these modifiable risk factors. This study will also give baseline information that will enable researchers to conduct more research on the area.

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