

KNOWLEDGE OF RISK FACTORS AND PREVENTIVE PRACTICES OF HYPERTENSION AMONG OFFICE WORKERS IN YENAGOA LOCAL GOVERNMENT COUNCIL, BAYELSA STATE

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ABSTRACT

This study examined the knowledge of risk factors and preventive practices of hypertension among office workers in Yenagoa Local Government Area Council of Bayelsa State, Nigeria. The research design adopted for this study was descriptive survey design. Stratified random sampling technique was employed to select 269 out of the total population of 1,341 office workers. The instrument used was a self-developed questionnaire with a reliability coefficient of 0.70. The findings of the study revealed that: Majority of the respondents are knowledgeable about the risk factors on hypertension but the respondents' preventive practice level was slightly below average because out of ten preventive practices listed only four were practiced. These include going regularly for check up of health status in the hospital, not drinking alcohol, eating low salt diet among others. It was recommended that, patients' education by physician and other health practioners is very important.

INTRODUCTION

Hypertension is one of the major global concern and also key preventable risk factors for the development of cardiovascular diseases (CVD). The burden of non-communicable disease of which hypertension is inclusive and increasing in epidemic proportions in Africa, and Nigeria is not left out. It is referred to as a “silent-killer”; though it is a preventable as well as controllable disease. According to Erhun, Olayiwola, Agbani, et al. (2005), hypertension is an important public health challenge in both economically developing and

developed countries. Hypertension has been identified as a major cause of morbidity and mortality globally including sub-Saharan Africa. Several studies carried out opined that as a major non-communicable disease, and a leading cause of mortality that causes CVD, it is also a leading cause of cerebrovascular accident (CVA) – stroke, coronary heart disease, heart failure, kidney disease, as well as blindness (Ekwunife & Aguwa, 2011). In Nigeria, hypertension seems to be the most common CVD. According to a research survey conducted by Igbokwe and Odo (2012), the work revealed estimated value of over 41 million Nigerians as hypertensive. He went ahead to predict that this figure is expected to increase overtime, hence the need for a renewed effort and an urgent action to tackle the scourge. Their work also revealed that about 20% to 25% of Nigerian's populations are hypertensive.

Study conducted by Jones, Appel, Sheps et al. (2003), also revealed that hypertension affects 20 million people in sub-Saharan African, and this makes it to be the leading cause of hospitalization and mortality. Abdullahi and Amzat (2011), declared that more than 11% of Nigerian adults are living with the illness (hypertension). On the other hand, Omuemu, V. Okojie, O. and Omuemu, C. (2008), states that there is a low level of awareness of hypertension globally. Speaking further, they documented an awareness rate of just 18.55% in Nigeria. Hypertension, according to the British Medical Association (2002), is the persistently raised blood pressure exceeding about

140mmHg (systolic) and 90mmHg (diastolic) at rest. Okoye (2006), also defined hypertension as an elevation in the blood pressure above 140/90mmHg. It characterizes the disease as a progressive cardiovascular syndrome with many causes to the heart and vascular system. The ASH also noted that the early stages of hypertension can begin before an individual develops a sustained elevated blood pressure, and can progress to damage the heart, kidneys, brain, vasculature, and other organs, often leading to premature morbidity and mortality (Giles, 2005).

It is worthy of note that hypertension affects both males and females, and that the risk of developing it increases with age, that is as one gets older. Hypertension detection, prevention and management depend on the various underlying risk factors that serve as influencing agents for the development of this disease. These risk factors include age, race, family history, obesity, physical inactive (Sedentary life style), use of tobacco, alcohol, too much salt in the diet, stress, too little potassium and vitamin D in the diet, and certain chronic health conditions (Mayo, 2012). He further stated that with the increase of high blood pressure as regards to sex, it is more common in men during early middle age. Women on the other hand, are more likely to develop high blood pressure after menopause, though may still occur before menopause. Also with regards to race, high blood is particularly common among blacks, often developing earlier than it does in whites.

Most mechanisms leading to secondary hypertension are well understood. The pathophysiology of essential hypertension remains an area of active research, with many theories and different links to many risk factors. Cardiac output and peripheral resistance are the two determinants of arterial pressure (Klabunde, 2007). Cardiac output is determined by stroke volume and heart rate,

stroke volume is related to myocardial contractility and to the size of the vascular compartment. Peripheral resistance is determined by functional and anatomic changes in small arteries and arterioles. An estimated 16.7 million, or 29.2% of total global deaths, result from the various forms of CVDs, many of which are preventable by the action on the major primary risk factors; unhealthy diet, physical inactivity and smoking (Lopez, Mathers, Ezzati, Jamison and Murray, 2006). Studies have revealed that some people are at greater risk of CVDs than others. The Heart Foundation of Australia (2010), is also of the view that the aforementioned risk factors by Mayo (2012) are linked to the development of the disease condition. Although, CVDs typically occur in middle age or later, risk factors are determined to a great extent by behaviours learnt in childhood and continued into adulthood, such as dietary habits and smoking (World Health Organization – WHO, 2010).

According to a study carried out by Froster (2010), among college students at State University of New York, he found out that over 91% of respondents knew hypertension was a major CVD risk factor. In addition, 90% identified smoking, 86.7% identified cholesterol level, and 72% identified exercise as additional factors. Furthermore, several studies have reported that family history of myocardial infarction (MI), hypertension, is heart disease and cerebrovascular accident (stroke), significantly increases personal risk perception of the disease (Choi, Rankin, Stewart & Oka, 2008). Smoking, obesity and hypertension were determinant of perceiving CVD risk as high, while diabetic patients did not report high perceived CVD risk (Van Der, et al. 2007). Meanwhile, Haines (2012), is of the opinion that diabetes is another risk factor to hypertension. He says if one has diabetes, the risk of developing hypertension is doubled. He

believes that may be the reason why many elderly diabetics are at the same time hypertensive.

According to a survey study conducted in the United States among adults from 2003 to 2004 reveals that 24% of people who are hypertensive and had blood pressure exceeding 140/90mmHg were unaware of their elevated blood pressure (Smeltzer et al. 2010). The normal level of hypertension according to the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNCT) as one less than 120/80mmHg diastolic. While a blood pressure of 120 to 129/80mmHg to 89mmHg as pre-hypertension, and 140/90mmHg or higher as hypertension.

From every indication, hypertension and its associated risk factors and the practice of prevention still remain a health issue in Nigeria as well as the world. Since it is referred to as a silent killer and because most times, people that are at risk of developing it or have hypertension already do not experience any initial warning signs before the inevitable happens. It is therefore expedient for the researcher to embark on this study. Hypertension which is a preventable condition can reduce the incidence of morbidity, prevention of complications and also abate mortality among office workers and the general public. Hence, this study is aimed at assessing the knowledge of risk factors and preventive practices of hypertension among office workers in Yenagoa Local Government Area Council of Bayelsa State, Nigeria.

The high incidence of morbidity and mortality cases of hypertension and its related complications reveals that majority of the people; including office workers do not have adequate knowledge of the causes, risk factors as well as preventive measures. This implies that one's blood pressure may rise up to a

critical level without the person realizing that he or she is seriously sick or have hypertension. Other health conditions are also a major contributing factor to hypertension. Example of which is diabetes mellitus which on its own is a major health catastrophe. As a nurse working in the hospital, interaction with hypertensive patients and observation reveals that majority of the people that are hypertensive are educated yet do not know how to manage their health condition. Some of them, when asked said it is as a result of heredity, others said they do not know but was only diagnosed of having hypertension as they visited the hospital.

Webber (2007), opined that there are many things which contributes to an individual's risk of developing high blood pressure. They include, age, ethnicity, gender, family history, smoking, activity level/exercise, diet, stress, medications and streets drugs, kidney and other medical problems like hormonal imbalance as well as pregnancy induced hypertension found in women during pregnancy. It was also revealed that the magnitude of deaths as a result of hypertension in Nigeria has become such that very urgent attention is needed to avoid an imminent epidemic of CVDs in the country (Igbokwe & Odo, 2012).

Objectives of the study

The study seeks to elicit the knowledge of the risk factors and preventive practices of hypertension among office workers in Yenagoa Local Government Area Council of Bayelsa State, Nigeria.

1. To identify the level of knowledge of risk factors of hypertension among office workers in Yenagoa L.G. A. Council.
2. To assess the preventive practices of hypertension among office workers in Yenagoa L.G.A. Council.

Research questions

1. What is the level of knowledge on the risk factors of hypertension among office

workers in Yenagoa L.G.A Council?

3. What is the preventive practices of hypertension among office workers in Yenagoa L.G.A. Council.

Hypothesis

There is no significant relationship between the level of knowledge of risk factors and preventive practices of hypertension among office workers.

The preventive practices of hypertension among office workers

Determining the preventive measures of the dreaded non-communicable disease among office workers is to a great extent far better than the control or treatment of this condition. Ulasi, Ijoma and Onodugo (2010), stated that working class adults constitute the main risk group for hypertension. According to Erhun et al. (2005), in a study conducted in a University Community in South West Nigeria also reveals that the prevalence rate among working class adults is 21%. Cuppucio et al. (2004) and Iyalomhe, G.B., and Iyalomhe, S. I. (2010), emphasizes that the level of detection, treatment and control of hypertension in West Africa is low and worrisome. Hence the need for proper preventive measures of the risk factors of hypertension. Some of these risk factors of high blood pressure can be prevented, especially if one has the knowledge or is aware that he or she is at risk of developing high blood pressure. Preventive measures of high blood pressure entail avoiding or preventing the known risk factors, such as low intake of potassium and vitamin D, medications (oral contraceptive pills), stress, obesity among others.

Igbokwe and Odo (2012), further opined that life style modification or changes can help one control and prevent hypertension. He further states that this can be achieved through eating healthy foods by applying the Dietary Approaches to Stop Hypertension (DASH).

Diets such as fruits, vegetables, whole grains and low fat dairy foods, plenty of potassium, less saturated fats and total fats, decreased salt intake; maintain a healthy weight, increased physical activity (according to ones capability and health status), limit alcohol intake; avoid smoking, manage stress, monitor ones blood pressure regularly at home; practice relaxation or slow deep breathing exercise. McCoy (2012), is also of the view with Igbokwe and Odo (2012) that the prevention or avoidance of the listed risk factors, which he identified ten (10) healthy habits to keep blood pressure down, will help to prevent the development of hypertension. McCoy further stated that stress can cause temporary increase in high blood pressure; scientists are still unaware how stress affects blood pressure.

METHODOLOGY

The research design adopted for this study is descriptive survey design. The study was conducted in Yenagoa is a Local Government Area of Bayelsa State, South-South of Nigeria. The population used for this study consisted of office workers in the Yenagoa Local Government Council in Bayelsa State. The total population of the study was 1,341. From this population stratified random sampling technique was adopted to select 269 respondents. A self-developed questionnaire in line with the research questions, which were divided into three (3) sections of A, B, and C respectively with a total of 26 items. Section A elicited the socio-demographic data of the respondents, Section B covered the knowledge of the risk factors associated with the development of hypertension among office workers and section C dealt with information on the preventive practices of hypertension among office workers. The options on the instrument for sections A, B, and C had Yes and No. The validity of the instrument was done by the researchers. Also, the reliability of the

instrument was established based on a test-retest method and produced a reliability coefficient of 0.70.

RESULTS

Research question 1: What is the level of knowledge on the risk factors of hypertension among office workers in Yenagoa L.G.A Council?

Table 1: knowledge of the risk factors associated with the development of hypertension among office workers

Variables	Yes	No	Total
Hereditary makes one develop hypertension	215 (79.9)	54 (20.1)	269 (100)
Both men and women have equal chance of developing hypertension	245 (91.1)	24 (8.9)	269 (100)
Eating more salty diet will increase blood pressure	204 (75.8)	65 (24.2)	269 (100)
Development of hypertension progresses with age	200 (74.4)	69 (25.6)	269 (100)
Hypertension causes heart attack	212 (78.8)	57 (21.2)	269 (100)
Hypertension is a leading cause of cerebrovascular accident (stroke)	212 (78.8)	57 (21.2)	269 (100)
Hypertension is highly associated with too much fat	212 (78.8)	57 (21.2)	269 (100)
Eating fatty food causes increase blood cholesterol vessels	201 (74.7)	68 (25.3)	269(100)
Cigarette smoking is a risk factor of having hypertension	84 (31.2)	185 (68.8)	269(100)
Being worried causes one to develop hypertension	87 (32.3)	182 (67.7)	269(100)

Percentages are written in parentheses

Table 1 is a reflection of the level of knowledge of the risk factors associated with the development of hypertension. It shows on the aggregate that greater proportion of the sampled respondents 215(79.9 %) out of 269 had are knowledgeable that family history (hereditary) makes one to develop hypertension. Also, 245(91.1%) had poor knowledge that both men and women have equal chance of developing hypertension. Furthermore, 204(75.8%) had low knowledge that eating more salty diet does not increase blood pressure, 200(74.4%) had poor knowledge that the development of hypertension progresses with age, 212(78.8%)

had poor knowledge that hypertension can cause heart attack. The analysis further revealed that 212 (78.8 %) of the respondents also had poor knowledge that hypertension is a leading of cerebrovascular accident (stroke), 212(78.8 %) had poor knowledge that hypertension is highly associated with too much fat and 201(74.7 %) had poor knowledge that eating fatty food causes blockage of the blood vessels. Lastly, 185(68.8 %) had good (high) knowledge that cigarette smoking is a risk factor of having hypertension and 182(67.7%) also had good knowledge that being worried causes one to develop hypertension. The summarized analysis of table 4.3 indicates that an aggregate

percentage of majority of the sampled respondents are knowledgeable about the risk factors associated with the development of hypertension.

Research question 2: What are the preventive practices of hypertension among office workers in Yenagoa L.G.A. Council, Bayelsa state.?

Table 2: Preventive Practices of Hypertension among office workers

Variables	Yes	No	Total
I go regularly for check up of my health status in the hospital	223 (82.9)	46 (17.1)	269(100.0)
I do not smoke so as to prevent hypertension	72 (26.8)	197 (73.2)	269(100.0)
I don't get worried to reduce the risk of developing hypertension	120 (44.6)	149 (55.4)	269(100.0)
I do regular exercise to prevent hypertension	75 (27.9)	194 (72.1)	269(100.0)
I do not drink alcohol to reduces the development of hypertension	209 (77.7)	60 (22.3)	269(100.0)
I check your blood pressure regularly to prevent development of hypertension	59 (21.9)	210 (78.1)	269(100.0)
I do rest and sleep well to prevent hypertension	95 (35.4)	174 (64.6)	269(100.0)
I do eat good food like vegetables, fruits, beans, low fat to prevent hypertension	97 (36.1)	172 (63.9)	269(100.0)
I do eat of low salt diet to prevent the risk of developing hypertension	232 (86.2)	37 (13.8)	269(100.0)
I avoid bad fat in the diet to reduce the risk of hypertension	151 (56.1)	118 (43.9)	269(100.0)

A cursory look at Table 2 is a reflection of the respondents' responses on preventive practices of hypertension. It shows cumulatively that larger proportion of the sampled respondents 223 (82.9 %) out of 269 visits hospital regularly for check up of health status. Only 72 (26.8 %) do not smoke, while 120 (44.6%) do not get worried and 75 (27.9 %) do regular exercise to prevent hypertension. Also, majority of respondents 209 (77.7%) do not drink alcohol to reduce the development of their hypertension and few of the respondents 59(21.9 %) check their blood pressure regularly to prevent the development of hypertension. The analysis further revealed that 95 (35.4 %) of the respondents' rest and sleep well to prevents hypertension. It also shows that 97(36.1%) of the respondents eat

good food like vegetables, fruits, beans, low fat to help prevent hypertension. Lastly, majority of 232(86.2%) eat low salt diet to prevents the risk of developing hypertension and majority of 151(56.1%) also avoid bad fat in the diet to reduce the risk of hypertension. Cumulatively, the respondents' preventive practice level of hypertension is slightly below average because out of ten preventive practices only four were adopted which include: going regularly for check up of my health status in the hospital, not drinking alcohol, eat low salt diet and avoid bad fat in the diet to reduce the risk of hypertension.

Hypothesis

There is no significant relationship between the level of knowledge of risk factors and the preventive practices of hypertension by office workers in Yenagoa.

Table 3: Relationship between knowledge of risk factors and preventive practices

Level of knowledge	Level of preventive practices		Total	df	X ² calculated	X ² critical
	Good preventive practices	Poor preventive practices				
Good knowledge	27	55	82			
Poor knowledge	109	78	187	1	15.47	3.841
Total	136	133	269			

*significant at 0.05, df = (c-1) (r-1) (2-1) (2-1) =1, Calculated value = 15.47,

As presented in Table 3, the result of the hypothesis using chi-square test revealed that the calculated value of X² (15.47) is greater than the critical value (3.841). Based on this, the null hypothesis (H₀) is rejected and the alternative hypothesis (H₁) accepted leading to the conclusion that there is a significant relationship between the level of knowledge of risk factors and preventive practices of hypertension by office workers.

DISCUSSION OF FINDINGS

This study seeks to assess the the knowledge of the risk factors and preventive practices of hypertension among office workers in Yenagoa Local Government Area Council of Bayelsa State, Nigeria. The study revealed that respondents are knowledgeable about the risk factors associated with the development of hypertension, which is in line with the study carried out by Froster (2010), among college students at State University of New York, where he found out that majority of the respondents knew hypertension as a major CVD risk factor; some identified smoking, cholesterol level and also exercise as additional factors. Some results were also similar to the view of Mayo (2012) who identified some risk factors associated with hypertension to include age, race, family history, tobacco use, obese,

physical inactive, diet, alcohol consumption, stress and certain chronic conditions.

The study further showed that the respondents' preventive practice level of hypertension is slightly below average because out of ten preventive practices listed, only four were done which include going regularly for check up of my health status in the hospital, not drinking alcohol, eat low salt diet and avoid bad fat in the diet to reduce the risk of hypertension. Most of the results stated above are in line with the view of Igbokwe and Odo (2012) who opined that lifestyle modifications or changes can help one control and prevent hypertension. He further stated that this can be achieve through eating healthy diets, maintaining a healthy weight, increased physical activities (according to one's capability and health status), limiting alcohol intake, avoiding cigarette smoking, managing stress, monitoring one's blood pressure regularly at home, practice of relaxation or sleep, and deep breathing exercise.

The result of the test of research hypothesis using chi-square (X²) revealed that the calculated value of X² (15.47) is greater than the critical value (3.841) leading to the conclusion that there is a significant relationship between the level of knowledge of risk factors and the preventive practices of hypertension among office workers in Yenagoa.

Conclusion and Recommendations

Based on the findings of this study, it is concluded that there is a low level of knowledge of risk factors associated with the development of hypertension and a moderate level of preventive practices of hypertension (indicated by the respondents' knowledge on most of the preventive practices of hypertension) among office workers in Yenagoa Local Government Council. It also concluded that there exist a positive relationship between knowledge of risk factors and the practice of prevention of hypertension by office workers in Yenagoa, Bayelsa State, Nigeria.

It was recommended that, patients' education by physician and other health team form an important part of WHO recommendation. A brief section of advice/ counseling delivered by a physician/nurse practitioner as part of routine primary care; can significantly reduce the rate of alcohol consumption by high risk drinkers. And to reduce B/P in hypertensive patients, individualized therapy is recommended. This therapy should emphasize weight loss for overweight patients, abstinence from alcohol intake, regular exercise, and restriction of sodium intake and in appropriate circumstances, individualized cognitive behavior modification to reduce the negative effect of stress.

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