

KNOWLEDGE AND PREVENTIVE STRATEGIES OF HYPERTENSION AMONG STAFF OF THE FACULTY OF EDUCATION, UNIVERSITY OF UYO, NIGERIA

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Abstract

As the world transits from communicable diseases to non-communicable diseases and from curative to preventive and social medicine, the need to ascertain the level of knowledge and preventive strategies of these non-communicable diseases become inevitable. Hypertension is a global disease and among one of the non-communicable that is common and occupies 7th in total outpatient disease in the hospital. It occurs both in female and male, in the rural areas and the urban areas. Hence the main purpose of this study is to investigate the level of knowledge and preventive strategies among staff of the Faculty of Education, University of Uyo, Nigeria. Two research questions and hypothesis were tested at 0.05 level of significance. The study employed a cross-sectional descriptive research design. The population of this study comprises 352 staff of the Faculty of Education, University of Uyo, Uyo. The

sample of 187 staff of the Faculty of Education was selected for the study using simple sampling technique. Data was collected using the researchers-made survey instrument titled “Knowledge and Preventive Strategies of Hypertension (KPSHQ). The instrument yielded reliable co-efficient of 0.82 with Cronbach Alpha Statistics. Data was analysed using means and independent t-test. The result indicated high knowledge and preventive strategies among staff of Faculty of Education, University of Uyo, Uyo. There was no significant difference in the level of knowledge and preventive measure mostly used among teaching and non-teaching staff of the University of Uyo, Uyo. Following from this, the study recommends among others, that there should be regular checking of blood pressure by the staff, University authority/Government should equip the medical centre, and there should be regular seminar and town hall meeting within the university community on non-commendable disease for proper understanding of the problem.

Keywords: Knowledge, Preventive Strategies, Hypertension, University Staff, Faculty of Education.

Introduction

Globally, hypertension is a common disease that still occupies the seventh position of the top ten outpatients in hospitals. It is a term used to describe high blood pressure. Hypertension can be defined as “a condition in which the person has a systolic blood pressure (SBP) of about 140 mm Hg or more than, and a diastolic blood pressure (DBP) of about 90 mm Hg or more” (Kofi, 2012).

Hypertension is often referred to as the silent killer due to the character of the disease that does not cause symptoms until complications appear such as cerebrovascular disease, ischemic heart disease, heart failure and kidney failure (Kartika, Rudai and Herri, 2016). The high rates of hypertension and the dangers posed by its complications make hypertensions as one of the major health burdens in Nigeria and the world as a whole.

Hypertension is common health problem worldwide with estimates as much as one billion patients, and cause of 7.1 million (one-third) of global preventable premature deaths (Sadeq & Lafia, 2017). It is one of the important reasons to visit the physicians in both developed and developing countries. It is a public health problem especially in the developing countries that are in a state of epidemiological transition from communicable to chronic non communicable disease (Mokdad, Forouzanfar & Daoud, 2016). Although it is a preventable and treatable disease, yet, without treatment it can lead to serious and life threatening complications.

The American Heart Association (2015) issued guidelines that define hypertension as blood pressure that is consistently higher than 130 over 80 millimeters of mercury (mmHg). The systolic reading of 130mmHg refers to the pressure as the heart pumps blood around the body. The diastolic reading of 80 mmHg refers to the pressure as the heart relaxes and refills with blood. Irregularity in the pumping of blood and relaxation of the heart result in cardiovascular diseases.

Hypertension results from a complex interaction of genes and environmental factors. Numerous common genetic variants with small effects on blood pressure have been identified as well as some rare genetic variants with large effects on blood pressure (Mancia G. Fagard R. Narkiewicz K. Redon J, Zanchetti A, Bohm M, 2013). According to the author, blood pressure rises with aging and the risk of becoming hypertensive in later life is considerable. Several environmental factors influence blood pressure also high salt intake rises the blood pressure in salt sensitive individuals; lack of exercise, central obesity can play a role in individual cases. Secondary hypertension results from an identifiable cause. Kidney disease is the most common secondary cause of hypertension (Mancia, et., 2013).

Patients' knowledge and attitudes have an impact on the prevention and management of their illnesses. Obtaining information about the level of awareness is the first step in formulating a preventive programme for any health problem. Therefore, undetected and untreated hypertensive patients are more in the society especially in rural areas. The proportion of hypertension among rural population is still undetected though this has strong impact on physical, mental and social burden. Most people with hypertension have no symptoms at all: this is why it is known as the "silent killer". It has been identified as the prominent risk factor for mortality and is ranked third as a cause of disability-adjusted life-years (Ohkubo T, Asayama K, Kikuya M, Metoki H, Obara T, Saito S, (2004). It can be dangerous to ignore such symptoms, but neither can they be relied upon to signify hypertension.

The condition can be a silent killer as most times it does not show any serious warning sign hence, it is important for everybody to know their blood pressure reading. If hypertension is detected early, it is possible to minimize the risk of heart attack, heart failure, and stroke and kidney failure. As with other non-communicable disease, self-care can facilitate early detection of hypertension, adherence to medication and healthy behaviours, better control and awareness of the importance of seeking medical advice when necessary. Self-care

is important for all, but it is particularly so for people who have limited access to health services due to geographic, physical or economic reasons.

The lowest treatment of hypertension pharmacologically is recorded to be 7.5-12 percent of the monthly income of the average worker in Ghana (ProCor, 2009). This makes it expensive to be treated. Therefore, the need for understanding the disease and controlling it by preventive measures is the key to reduction of high prevalence in a developing country as Nigeria. This can only be achieved through creating awareness by educating the public.

Knowledge, perspective and behaviours of persons have great influence on determining the quality of health care services. Research is required to clarify the relationship between lifestyles, individual behaviours, health and illnesses. This can only be achieved based on the knowledge derived from the public (Maher, et. al., 2010). It is very important that the patients should understand hypertension and its consequences, the need for treatment and the possibility of side effects of medication. On the other hand, patients may feel well, and would not seek medical treatment due to the inconvenience of visiting a doctor or refusals of commitment to treatment.

Preventive measure is necessary in avoiding the occurrence of hypertension and is viewed as a nursing practice (Kozier & Erb, 2008). This is due to the fact that delivery of care is across a lifespan and activities reduce the burden of mortality from disease. Hypertension can be prevented by promoting health through good environmental conditions. Almost everybody is at risk of developing HBP without a healthy lifestyle habit. However, there are risk groups: risk is related to certain characteristic that contribute to the development of a disease. Therefore, these groups are at a higher risk of developing high blood pressure either through influencing factors or as a result of a secondary effect.

The emergence of hypertension and other cardiovascular disease (CVDs) as a public health problem in communities in developing countries is strongly related to the aging of its population, urbanization, and socioeconomic changes favouring sedentary habits, obesity, alcohol consumption, and salt intake, among others (Marshall, J., Wolfe, C. D. and McKeivitt, C. (2012)).

Methodology

This study employed cross-sectional descriptive survey design. The design is considered appropriate for the study as the researcher obtained relevant data on knowledge and preventive strategies of hypertension from staff of Faculty of Education, University of Uyo, Uyo. The sample for this study consisted of 352 staff of the Faculty of Education made of 217 academic staff and non-teaching

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staff (Faculty of Education Staff Record, 2021). A Staff Structure Questionnaire was used for the research instrument. The reliability of instrument was established using Cronbach Alpha Statistic. The data Collection from the respondents were analyzed using mean of answer the research questions and independent t-test to test the hypertension at 0.05 level of significance.

Research Questions

The following questions are posed to guide the study:

1. What is the level of knowledge of hypertension among staff of the Faculty of Education, University of Uyo, Nigeria?
2. What preventive measures of hypertension are mostly used among staff of the Faculty of Education, University of Uyo, Nigeria?

Research Hypotheses

The following null hypotheses are formulated to guide the study:

1. There is no significant difference in the level of knowledge of hypertension among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria.
2. There is no significant difference in the way that prevention measures of hypertension are mostly used among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria.

Result and Discussion of Finding

In this chapter, the results of data analysis are presented and discussed. It is organized under the following sub-headings: research questions, hypotheses testing, findings and discussion of findings.

In this section, result of data analyzed are presented on table below

Answering of Research Questions

Research Question 1

What is the level of knowledge of hypertension among staff of thr Faculty of Education, University of Uyo, Nigeria?

Table 1: Mean Analysis showing Level of Knowledge of Hypertension among Staff of the Faculty of Education, University of Uyo, Nigeria.

S/N	Items on Knowledge of Hypertension	X	SD	Remark
1.	Hypertension is triggered by gentle composition of an individual	3.00	.79	Agree
2.	Smoking raises the blood pressure of smokers	2.85	.96	Agree
3.	Alcoholism causes hypertension	2.87	.88	Agree
4.	Hypertension is associated with obesity	3.06	1.06	Agree

5.	High in-take of salt causes hypertension	3.20	.91	Agree
6.	Hypertension occurs when blood pressure is higher than normal	3.00	.99	Agree
	Grand Mean	2.72		Agree

Table 1 shows the level of knowledge of hypertension among staff of Faculty of Education, University of Uyo, Nigeria. The tables reveals that mean score of respondents on all the items are above 2.50 indicating that respondents agree of all the six items on the knowledge of Hypertension. This implies that respondents know that genetic composition, smoking alcoholism, obesity, high intake of salt causes hypertension and that hypertension occurs when blood pressure is higher than normal. The grand mean 2.72 implies that the level of respondent on the causes of hypertension is high.

Research Question 2

What preventive measures of hypertension are mostly used among the Faculty of Education, University of Uyo, Nigeria?

Table 2: Mean Analysis showing Preventive Measures of Hypertension among Staff of the Faculty of Education, University of Uyo, Nigeria.

S/N	Items on Preventive Measures mostly used	X	SD	Remark
1.	Reducing salt in-take prevents high blood pressure	3.22	.64	Agree
2.	Avoiding smoking reduces risk of hypertension	2.86	.57	Agree
3.	Physical exercise is important to hypertensive patients for sustainable and stable life	3.02	.99	Agree
4.	Avoidance of junk food could stabilize the blood pressure of hypertensive patients	3.25	.77	Agree
5.	Taking sufficient rest prevent the risk of hypertension	3.00	1.04	Agree
6.	Eating balance diet in time regularly protects against hypertension	3.21	.72	Agree
	Grand Mean			Agree

Table 2 shows the preventive measures of hypertension are mostly used among staff of the Faculty of Education, University of Uyo, Nigeria. The table reveals that the mean score of respondents on all the items are above 2.50 indicating that respondents agree to all six items on the prevention of hypertension. This implies that respondents reduce salt in-take, avoiding smoking, engages in exercise, avoid junk food, rest sufficiently and eat balanced diet as measures to prevent hypertension. The grand mean 2.72 implies that the reduce in salt in-take, balance

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diet as measures to prevent hypertension mostly used by staff a measures to prevent hypertension.

Testing of Research Hypotheses

Research Hypothesis 1

There is no significant difference in the level of knowledge of Hypertension among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria

Table 3: t-test Analysis showing Mean Difference in the Level of Knowledge of Hypertension among Teaching and Non-teaching staff

Variables	N	X	SD	Df	Cal value	t-Critical t-value	decision
Teaching Staff	115	17.82	2.59	185	0.31	1.96	H ₀₁ Accepted
Non – teaching staff	72	17.65	2.60				

$N = 187, p > .05$

Table 3 reveals that the calculated t-value is 0.31 at 185 degrees of freedom. Since the calculated t-value of 0.31 is less than the critical t-value of 1.96, the null hypothesis which states that there is no significance difference in the level of knowledge of hypertension among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria was accepted. Hence, there is no significance difference in the level of knowledge of hypertension among teaching and non-teaching staff of the Faculty of Education, University o Uyo, Nigeria.

Research Hypothesis 2

There is no significant difference in the way that prevention measures of hypertension are mostly used among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria

Table 4: t-test Analysis showing Mean Difference in the Prevention Measures of Hypertension mostly used among Teaching and Non-teaching staff

Variables	N	X	SD	Df	Cal value	t- Critical t-value	decision
Teaching Staff	115	18.56	1.95	185	0.03	1.96	H ₀₁ Accepted
Non – teaching staff	72	18.56	1.79				

$N = 187, p > .05$

Table 5 reveals that the calculated t-value is 0.03 at 185 degrees of freedom. Since the calculated t-values of 0.03 is less than the critical t-value of 1.96, the null hypothesis which states that there is no significance difference in the prevention measures of hypertension are mostly used among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria, was accepted. Hence, there is no significance difference in the prevention measures of hypertension are mostly used among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria.

Finding of the Study

The findings of this investigation are summarized as follows:

1. There is a high level of knowledge of hypertension among staff of the Faculty of Education, University of Uyo, Nigeria.
2. Reduction in salt in-take, avoidance of smoking, engagement in exercise, avoidance of junk food, sufficient resting and eating balance diet are measures mostly used by staff to prevent hypertension.
3. Taking of drugs, consumption of balance diet, engaging in exercise and reduction in stress are measures mostly used by staff in Faculty of Education, University of Uyo to manage hypertension.
4. There is no significance difference in the level of knowledge of hypertension among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria
5. There is no significance difference in the prevention measures of hypertension are mostly used among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria.

Discussion of the Findings

Findings of the study indicated that there is a high level of knowledge of hypertension among staff of the Faculty of Education, University of Uyo, Nigeria. Also, findings showed that there is no significance difference in the level of knowledge of hypertension among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria. The findings may be due to the fact that staffs of Faculty of Education are in a learning environment where information related to health are accessible by them. Furthermore, Faculty of Education being in a tertiary institution that undertake research, most staff attend seminars, conferences and workshop on health related issues where they are likely to be exposed to information on hypertension. The findings is in-line with the findings of Parmar *e tal*, (2014) who reported that a high proportion of adults

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showed good basic knowledge on hypertension such as recognizing high blood pressure, high salt in-take, obesity and smoking were associated with hypertension. The study agrees with Kofi (2012) who observed that general knowledge of high blood pressure is adequate. Participants lacked understanding in the etiology of high blood pressure.

More so, findings revealed that reduction in salt in-take, avoidance smoking, engagement in exercise, avoidance junk food, sufficient resting and eating balance diet are measures mostly used by staff to prevent hypertension. Also there is no significance difference in the prevention measures of hypertension are mostly used among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria. The findings may be due to the fact that staff of Faculty of Education are in a learning environment where information related to health are accessible by them. Furthermore, Faculty of Education is in a tertiary institution where there are experts in health as a result of presence of other faculties such as Faculty of Pharmacy, Faculty of Biological Sciences, Faculty of Medicine and staff are likely to consult as well as seek for information on how to prevent hypertension from the University of Uyo Health center. The finding is in line with the finding of Lu, *et. al*, (2015) who recommended lifestyle modification, proper BMI and sleep duration for young patients with pre-hypertension to manage their blood pressure. Finding also aligns with the findings of Dejene and Rathore (2017) who observed that many patients look to their health professional for information and guidance. The findings is in consonance with the findings of Anowie and Darkwa (2015) who reported that participants who had occupations and worked were more knowledgeable about the condition than those who had no occupations and no regular jobs.

Similarly, findings revealed that taking of drugs, consumption of balance diet, engaging in exercise and reduction in stress are measures mostly used by staff in Faculty of Education, University of Uyo to manage hypertension. Furthermore, there is no significance difference in the hypertension management strategies used among teaching and non-teaching staff of the Faculty of Education, University of Uyo, Nigeria. The findings may be due to the fact that staff of Faculty of Education are in a learning environment where information related to health are accessible by them. Furthermore, Faculty of Education is in a tertiary institution where there are experts in health as a result of the presence of other faculties such as Faculty of Pharmacy, Faculty of Biological Sciences, Faculty of Medicine and staff are likely to consult as well as seek for information on how to manage hypertension from the University of Uyo Health Center. The

findings of the study is in-line with the findings of Busari *et al* (2010) and Parmar *et. al*, (2014) who reported a significant association between education, knowledge and attitude and found negative attitude towards hypertension among most populations with low education.

Conclusion

The major thrust of this study was to ascertain the knowledge and preventive strategies of hypertension among staff of the Faculty of Education, University of Uyo, Uyo, Akwa Ibom State, Nigeria. Findings indicate high level of knowledge and preventive strategies among staff. Hence the staff are aware that reduction of salt intake, avoidance of smoking, avoidance of junk food and excessive alcoholic intake can cause hypertension. Also the staff are also aware the engagement in exercise, sufficient resting and eating of balance diet can prevent hypertension. However, it is also good to know that the category of the staff is not significant in this study. Hence many outcome of the current study supported finding of some other previous student with regard to knowledge and prevention strategies among workers in higher educational institution.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Administrators of Faculty of Education should collaborate with health experts in Health inclined faculties such as Faculty of Pharmacy and Faculty of Basic Medical Sciences to Organize workshops and conference for staff of the faculty on causes, prevention and management of hypertension to help broaden the level of knowledge about it.
2. Government should adequately supply the University of Uyo Health Center with relevant hypertension drugs and made accessible for treatment of staff of the University.
3. Staff of Faculty of Education should embark on health insurance scheme to help regular access to healthcare service especially patients suffering from hypertension.
4. Faculty of Education staff should embark on lifestyle modification strategies such as reduction in salt in-take, avoidance smoking, engagement in exercise, avoidance junk food, sufficient resting and eating balanced diet to minimize the incidence of hypertension among them.

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