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Patient's Opinion Concerning Management of Hypertension at University of Calabar Teaching Hospital (UCTH), Calabar, Cross River State, Nigeria

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ABSTRACT

The study was conducted to assess patient's opinion concerning management of hypertension in University of Calabar Teaching Hospital (UCTH), Calabar. To achieve this, two research questions were formulated to direct the study. The hypothesis which states that there is no significant relationship between patient's opinion and factors associated with patient's opinion concerning management of hypertension in UCTH, Calabar was rejected. A descriptive research design was adopted for the study. Data analysis was through descriptive statistics and the result revealed that majority of the respondents, 156(83.87%)affirmed that the drugs they are given makes them very drowsy and that makes them feel very weak, 98(52.69%) affirmed that reduction of salt in meal makes them not to eat well enough, 108(58.06%) agreed that the drug thiazide diuretics is used for hypertension and it makes them urinate often and 158(89.95%) agreed that high blood pressure is measured using the instrument aneroid instrument for diagnosing high blood pressure. Results also revealed that majority of the respondent, 150(80.65%) exhibited positive opinions concerning the management of hypertension in UCTH, Calabar. It was also obtained that factors associated with patient's opinion concerning hypertension management in UCTH, Calabar include, checking their blood pressure weekly is very tiring (54.84%), far distance to the hospital (59.14%), side effect of drugs 68.82%) and working schedule interference with checkup time (56.99%). Based on the findings, it was therefore recommended that effective and sustained health education of hypertensive patients on the need for healthy nutritional practices should be made.

1.0 INTRODUCTION

Globally and in contemporary Nigerian societies, hypertension is a major cause of death among both men and women especially those found in University of Calabar Teaching Hospital (UCTH), Calabar, following their records. In 1997, a Nigerian survey was carried out using 160/95mmHg as hypertension cut across levels. The overall prevalence of hypertension recorded was 11.2%. In recent times however isolated rural and urban blood pressure studies in parts of Nigeria, using 140/90mmHg (Joint National Committee JNC, 2007) studies of other areas have reported prevalence rates ranging from 17.5% to 31. 5%. This indicated a higher and increasing burden of hypertension in the country. It is on this background that we report the pattern and distribution of blood pressure in another rural community in Rivers state as a further contribution to an updated blood pressure trends data in Nigeria. There are different definitions of the normal range of blood pressure. Normal blood pressure is 120mmHg systolic and 80mmHg diastolic. Prehypertension is 120-139mmHg systolic or 80-89mmHg diastolic. Stage 1 hypertension is 140-159mmHg systolic or 90-99mmHg diastolic. Stage 2 hypertension ≥160mmHg or ≥100mmHg. Hypertension is said to be present if it is often at or above 140/90mmHg (JNC, 2007).

High blood pressure (high blood pressure) is one of the major cardiovascular diseases which ranked third as a cause of disability-adjusted-life-years worldwide. It has affected millions of people in both the developed and developing the world, and the problem is likely to increase dramatically over the next 15 years (Kearney, Whelton, Reynolds & Muntner, 2005).Consequently, with the diverse impact of this cardiac disease, its real cause remains unknown despite the predisposing factors being evident. Factors such as heredity, lifestyles (excessive consumption of alcohol), poor diet patterns, and smoking have been discovered over the years to be associated with the occurrence of hypertension. Consumption of foods with high cholesterol, fatty foods and lack of vegetables and fruits consumption are also common trends observed among hypertensive individuals. These factors associated with the occurrence of hypertension produce complications resulting to damage of vascular with myocardial infarction, left ventricular hypertrophy, renal damage and cerebrovascular involvement optic retinopathies. This complication can be prevented by adherence to the Dietary Approach to Stop Hypertension (DASH) with frequent blood pressure checkups (Steptoe, 2007).

Cushman & Cutler (2012) stated that one of the strategies for treating high blood pressure is the used of combination therapy: either a fixed-dose combination (FDC), which combines two active agents into a single pill or a free equivalent combination (FEC), which is the separate use of the corresponding single-agent pills. However, other studies, however, have shown that patients using a fixed-dose combination have greater adherence to and persistence with medication regimens compared with patients using a free equivalent combination therapy (Baser, Andrews, Wang & Xie, 2011).

Kearney, Piper & Stevenson (2005) Opined that the prevention and control of high blood pressure have not received due attention in many developing countries although it is one of the most modifiable risk factors for cardiovascular diseases. Awareness, treatment, and control of high blood pressure are extremely low in Nigeria, as health care resources are overwhelmed by other priorities including AIDS, tuberculosis, and malaria. Studies carried out by Inlester et al., (2013), showed that patients' views and beliefs about high blood pressure are poor due to the silent nature of high blood pressure and thus the patient seems to have the poor perception about antihypertensive drugs. These encouraged the tendency of patients to be non-compliant with antihypertensive medication. Hypertension as a community health problem shows an increasing trend in many parts of the world. Therefore, this study is aimed at assessing patient's opinion concerning management of hypertension in University of Calabar Teaching Hospital (UCTH), Calabar.

Statement of Problem

High blood pressure is the single most common and most important risk factor for cardiovascular disease in the world. High blood pressure is an important public health problem that is difficult to control for several reasons, among which is the perception of high blood pressure and antihypertensive drugs.

Patient's opinion of high blood pressure greatly influences patient's compliance and adherence to antihypertensive medications. High blood pressure is one of the most important causes of premature death worldwide killing nearly 9.4 million people every year globally, and the problem is growing due to poor perception about high blood pressure. In many developing countries the disease burden caused by raised blood pressure has increased over

the past decade and they identified poor and negative perception about high blood pressure in this region as the major contributing factor to the development of high blood pressure.

Most people in Africa are not bothered about their hypertensive status and most of them have poor opinions about high blood pressure, it causes and treatments. Non-compliance to antihypertensive medication has been associated with the misunderstanding of the condition, perceived improvement in health, worsening in health, general disapproval of medications and concerns over side effects. Therefore, during the researcher's clinical interview of patients at UCTH, Calabar, it was observed that no matter the efforts made by health practitioners (nurses), hypertensive patients' still exhibited insatiable test concerning treatments received. This study, therefore, is designed to assess patient's opinion concerning management of hypertension in University of Calabar Teaching Hospital (UCTH), Calabar, and Cross River State.

Purpose of Study

The purpose of this study is to assess patient's opinion concerning management of hypertension at University of Calabar Teaching Hospital (UCTH), Calabar.

Specific Objectives

i) To assess patient's opinion concerning management of hypertension at UCTH, Calabar.

ii) To determine the various factors associated with patient's opinion concerning management of hypertension at UCTH, Calabar.

Research Questions

1) What is the opinion of patients concerning the management of hypertension at UCTH, Calabar?

2) What are the various factors associated with patient's opinion concerning management of hypertension at UCTH, Calabar?

Research Hypothesis

There is no significant relationship between patient's opinion and factors associated with patient's opinion concerning management of hypertension in UCTH, Calabar.

Scope of Study

The study is limited to University of Calabar Teaching Hospital (UCTH), Calabar and also focused on assessing patient's opinion concerning management of hypertension at UCTH, Calabar.

Significance of the Study

The following are the significance of the study;

The findings from this study would help individuals, families, communities, hospitals and the nation at large to have more insight into high blood pressure. The findings would highlight more information on the management of high blood pressure among hypertensive patients.This would also sensitize people towards changing their adverse opinions attitudes, beliefs towards high blood pressure.

Complications associated with high blood pressure could be avoided following a successful management and control of high blood at the end of the study. This study would provide baseline data for other researchers might conduct on high blood pressure.

2.0 LITERATURE REVIEW

Patient's opinion concerning management of hypertension

Arakawa (2012) discovered that out of 50 people interviewed, 54% of all respondents believed that there is a direct co-relation between blood pressure and salt intake. Only 58% of hypertensive patients had the opinion that a reduction in salt intake helps to control high blood pressure. Chobanian (2005) documented in his work on evaluation and treatment of high blood pressure that smoking and tobacco consumption should be reduced in patients with high blood pressure. This was due to the discovery that 29% of the patients under study had the opinion that their body weight should be maintained to control high blood pressure.Yusuf and Alabi (2007) stipulated that most patients had opinions that treatment

with herbs and behavioural changes such as weight reduction, moderation of alcohol intake and increased physical activity can greatly reduce blood pressure and risk of Cardiovascular Diseases (CVD)-related mortality among people with high blood pressure thus, seeing this method as being more effective than the use of antihypertensive medication. They further stated that CVD prevention is a recent development and high blood pressure detection, treatment and control rates are generally low as people still hold on to their cultural and native management of high blood pressure. The absence of affordable community-based primary care services has been identified as a major obstacle to effective high blood pressure treatment in the region.

Patel, Mishra, Naik, Jadeja, Mehta & Nair (2010) discovered that about 76% of respondents believed that walking has a correlation with high blood pressure management but about 67% of patients with high blood pressure said they practiced walking as a measure to control high blood pressure. Ekwumife (2007) who observed 70.7% adherence level with antihypertensive drugs in Nsukka stated that many patients complied with their medications because they firmly believed orthodox "western" medicines. He further stated that there were patients who focused on adhering to medications and viewed it as a sufficiently appropriate substitute to the more demanding and time-consuming recommended lifestyle changes.

Gascon, Monsterrat, Bartolome, David & Pedro (2008) observed that patients with high blood pressure expressed fears about the long-term use of antihypertensive medication and the possibility of being stuck with it for the rest of their life. Negative feelings were elicited in many cases, as antihypertensive were perceived as being damaging and not good for the body. The adverse effects of drugs were issues of concern to most subjects. In addition, they identified remarks indicating how they perceived antihypertensive medicines, for example, some were afraid of the medication because it would require that medications would be taken throughout one's lifetime. Some did not like hypertensive medicines because it has lots of side effects, can make them sick and they might get worse instead of better.

National Health and Nutrition Examination Council, NHANEC (2008) stated that despite the availability of effective therapy, high blood pressure remains poorly controlled in Nigeria and other industrialized countries. In the Third National Health and Nutrition Examination Survey, half of hypertensive patients in the community-based sample were found to be asking no prescription medication, and only one-quarter of those who were being treated had their

blood pressure adequately controlled (NHANEC, 2008). Patient non-compliance with prescribed treatments is a central reason for the failure to control high blood pressure in those receiving therapy. Numerous investigations have found that half of hypertensive patients do not comply adequately with treatment, and that half of those with "refractory" high blood pressure are in fact non-adherent. Such high levels of non-compliance are a tremendous concern, given the serious consequences of uncontrolled high blood pressure on cardiovascular, cerebrovascular, and renal morbidity as well as mortality (NHANEC, 2008).

Gason et al. (2008) observed that some patients thought that it was perfectly safe not to take antihypertensive drugs from time to time and some did not always take medication as prescribed; sometimes this was simply because they believed that drug taking as conditional to the symptoms they were experiencing and, basically, because they felt well, some claimed that they had tried to gain personal experiences of the medicines by experimenting to see how they had tried they felt without them. Associated with this idea was the desire to find out about alternatives such as the prescribed dose of stopping treatment for a while, once the blood pressure seemed to be controlled. In some cases, the length and routine nature of the treatment caused boredom and consequently, the desire to drop out. Furthermore, it was also suggested that there was more confidence in herbal or natural remedies taken due to common knowledge than in medicines to alleviate high blood pressure (Gason et al., 2008).

Factors associated with patient's opinion concerning management of hypertension

Ekwumfe (2010), in his studies, revealed that common patient-related factors for the adherence to antihypertensive medication across countries and ethnic groups include patient's beliefs that medication is unnecessary when symptoms of high blood pressure or stress disappear, a dislike of medication, fear of addiction and the experience of side effects.

In a study by Kayima, Wanyenze, Katamba, Leontsini & Nuwaha (2013), results revealed that better prevalence of awareness or knowledge level patients possess of the treatment and control hypertension among the women is a factor associated with their opinions on the management of hypertension.

In another study by Pham (2012), it was documented that factors associated with patients' knowledge of their hypertension status often influence patients' opinion of management of hypertension. This was revealed as there was an increased proportion of treatment (22% in

men who knew their status and 13.6% in women) and control (11% in men and 17.3% in women) among hypertensive people. Results also showed a correlation between patients' knowledge and their belief toward the management of hypertension.

Tesfaye, Byass&Wall (2009) in their study on the population-based prevalence of high blood pressure among adults in Addis Ababa: uncovering a silent epidemic, discovered that the financial status of hypertensive patients determines how the patience would possibly perceive the treatment and management procedures of hypertension. This was observed as 31.5% among males and 28.9% among females agreed that they often had to stop treatment due to inadequate finances.

Summary of literature review

In this study, variables such as patient's opinion and factors associated with patient's opinion of management of hypertension were discussed.

The conceptual review in this study has the concept of hypertension (HTN), understanding what hypertension is, treatment of hypertension, patient's opinion concerning management of hypertension and factors associated with patient's opinion concerning management of hypertension.

Empirical review of this study was on the variables: patient's opinion concerning management of hypertension and factors associated with patient's opinion concerning management of hypertension.

Under the theoretical framework, the health belief model was applied to the study. Though most works cited were carried out in environments different from ours, but it is believed that applicability is universal, therefore a vacuum still exist in research that needs to be filled, it is on that note that the study is been carried out here in the University of Calabar Teaching Hospital (UCTH), Calabar.

Theoretical framework

The theoretical framework used for this study is Health Belief Model.

Health belief model

Health belief model (HBM) developed by Becker and Rosenstock in 1974 was used as the conceptual framework for this study. A model is a symbolic depiction of reality and uses diagrams and symbols to represent ideas. The HBM is one of the most widely used conceptual framework for understanding health behaviours and is believed to lay the foundation of this study which enables the researcher to discover what is known or unknown about the topic of interest in order to conduct research that adds to the body of knowledge (Polit & Beck, 2007).

According to the HBM, individuals' intentions to participate in preventive health behavior are determined by five main factors, namely:

***i) Perceived susceptibility*:** That is the person's subjective perceptions of the likelihood of experiencing a specific disease or condition that would adversely affect their health risk. For the behavior of seeking health advice and medication, patients must believe that they can be diagnosed with high blood pressure which can be reduced/stabilized. This constellation of belief is referred to as "belief in susceptibility".

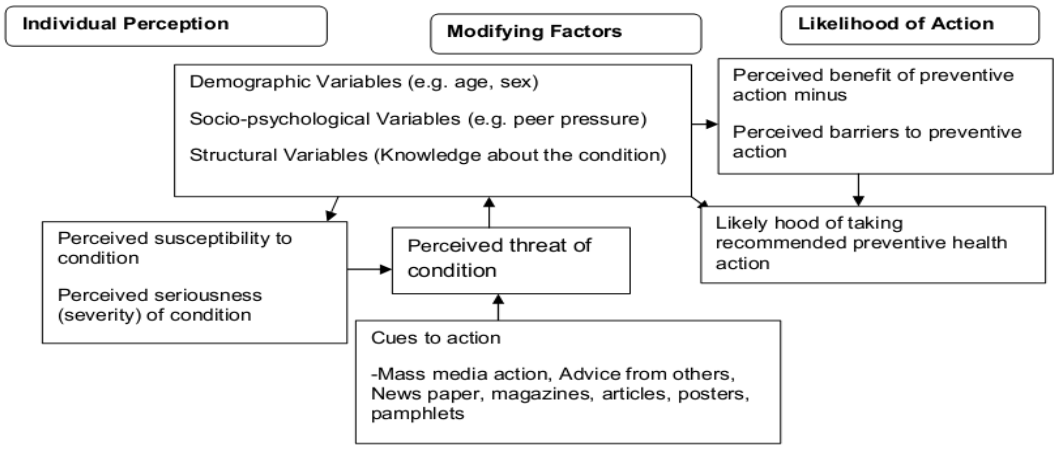
***ii) Perceived severity or perceived seriousness*:** It is the person's perceptions regarding the effects of the disease or condition might have. For this case, it is market women perceptions towards the effect of high blood pressure.

***iii) Perceived benefits*:** That is the person's perceptions of the gains associated with adhering to medications regarding the management of high blood pressure. On assessing the circumstances, market women must believe that benefits stemming from recommended behavior outweigh the costs and inconveniences and it is indeed possible and with their grasp.

***iv) Perceived barriers*:** That is the person's perceptions of impediments associated with performing the behavior, perceived barriers explain one's belief about the tangible and psychological costs of the advised action.

***v) Cues of action*:** These include a diverse range of triggers such as perception of complication, social influence, health education campaigns, media reports and mass media

campaigns. The HBM is beneficial in assessing health protection or disease prevention behaviors. It is also useful in organizing information about clients' views on the state of health and what factors may influence them to change their behavior. The HBM, when used appropriately, provides organized assessment data about clients' abilities and motivation to change their health status. Programs can be developed or improved to suit the needs of clients.



Application of model to the study

In this study, the model suggests that acknowledgment of both perceived susceptibility and perceived severity must exist before a perceived threat becomes sufficient to motivate a readiness for action and behavior change.

If market women perceive themselves susceptible to the risks associated with high blood pressure, if they perceive the seriousness of the devastating effects of high blood pressure on their health, it will motivate them to practice strategies associated with high blood pressure management. The modifying factors such as religion, beliefs, social class, the level of education, age may also influence the managing them by nurses. Market women with high health locus of control, that is, those who believe their health is controlled by themselves rather than others are more likely to control their high blood pressure. There is a need for women in Akim market, Calabar to be encouraged to take responsibility for their own health by knowing, maintaining and practicing control measures of high blood pressure.

METHODS

The focused of methods in this study and procedure adopted by the researchers in collecting data for the study are under the following sub-headings.

Research design

The research design adopted for this study was the descriptive survey design used to assess patient's opinion concerning management of hypertension in University of Calabar Teaching Hospital (UCTH), Calabar, Cross River State, Nigeria. According to Boroughs (2010), descriptive survey design is used to reveal current conditions that exist between specific events through the orderly collection, analysis, interpretation and reports of, pertinent facts and information concerning the situation or an enterprise in so far as conditions and circumstances permit.

Research setting

The setting for the study is Calabar and the site is University of Calabar Teaching Hospital (UCTH), Calabar. Calabar is the capital of Cross River State and a one-time capital of Nigeria. As the first capital of Nigeria, Calabar remains an important city in the history of Nigeria. Located on a peninsula between Calabar River and the great Kwa River, Calabar lies between latitude $4^{o}58$ North of the equator and longitude $8^{o}17$ East of the Greenwich Meridian with an estimated population of about 1.293million people (National Population Census, 2006).

Calabar possesses common boundary to the South with Equatorial Guinea, to the East with Oron Local Government Area in Akwa Ibom State, to the West with Akpabuyo Local Government Area and to the North with Odukpani Local Government Area. Calabar is an Island situated 87km from Uyo, the capital of Akwa Ibom State. It is separated from nearby highland areas by rivers and broad stretches of low, wet land and mangroves swamps. Calabar is inhabited by the Quas and the Efiks. However, due to migration and urbanization, people from other tribes such as the Ibibios, Ibos, Yorubas, Hausa and people from other tribes now resident in the city. It is a peaceful city with tourist attractions such as Marina Resorts and Tinapa. The people are traders, fishermen and civil servants by occupation. The main religions are Christianity and traditional beliefs.

The site: UCTH, Calabar was established in 1979. It was formally St Margaret hospital in Calabar south but moved to its permanent site in February 2012. The hospital is a tertiary health facility located in Calabar Municipal Council Area along UNICAL Hotel road by the west, bounded on the North by Edim-Otop community, in the East by Satellite town and in the South by University of Calabar (UNICAL), Calabar. It serves as a training Centre for medical, nursing and paramedical personnel and also a research center. The hospital is also made up of twenty-five (25) wards and units, with 392 bed complements and 118 cots, amongst which are Casualty Ward; Diarrhoea Treatment and Training Unit (DTTU); Eye Ward; Ear, Nose and Throat (ENT) Ward; Male Medical Ward; Male Surgical Ward; Female Medical Ward; Female Surgical Ward; Paediatric Medical Ward; Paediatric Surgical Ward; Male Orthopaedic Ward; Female Orthopaedic Ward; Cardiothoracic Ward; Intensive Care Unit (ICU); Gynaecological ward; Antenatal Ward; Postnatal Ward; Labour Ward; Special Care Baby Unit (SCBU); and Sick Baby Unit (SBU).

Research population

Target population

The target population of the study consists of a total number of 349hypertensive patients in UCTH, Calabar.

Accessible population

The accessible population used for this study was all hypertensive patients found in twelve wards (Male Medical Ward; Male Surgical Ward; Female Medical Ward; Female Surgical Ward; Paediatric Medical Ward; Paediatric Surgical Ward; Male Orthopaedic Ward; Female Orthopaedic Ward; Cardiothoracic Ward; Intensive Care Unit (ICU); Gynaecological ward; Antenatal Ward) in UCTH, Calabar.

Sample and sampling technique

The sampling technique used was simple random sampling to enable the researcher to select the number of hypertensive patients that will constitute the sample for this study. The sample was obtained with the aid of Taro Yamane's formula which is stated as;

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

Where, N = population size = 349

e = significance coefficient = 0.05

$$n = \frac{349}{1+349(0.05)^2}$$

$$n = \frac{349}{1+(349\ X\ 0.0025)}$$

$$n = \frac{349}{1+0.8725}$$

$$n = \frac{349}{1.8725}$$

n = 186.38

∴ n = 186

The sample obtained and use for this study is one hundred and eighty-six (186) hypertensive patients.

Instrument for data collection

A self-developed and structured questionnaire was used to elicit data from the respondents. The instrument was divided into three (3) sections;

Section A: Socio-demographic data of respondents with 7 items

Section B: Patient's opinion concerning management of hypertension 9 items.

Section C: Factors associated with patient's opinion concerning management of hypertension with 6 items questions.

Validity of instrumentation

Face validity and content validity of the research instrument was established by the researcher. In order to achieve this, the researcher constructed the instrument reflecting the

variables under investigation. Also, the item in the instrument was based on the specific objectives, and the researcher gave the developed tool to the supervisor for modification of items, assessment, and approval of the instrument.

Reliability of the instrument

The reliability was done using a test-retest method. Here the researcher gave ten (10) copies of the questionnaire to hypertensive patients in General Hospital, Calabar who were not part of the study and collected same day. Thereafter, the same sets of questionnaires were administered to the same respondents after a week and the two tests were correlated using Spearman correlation coefficient to test their significance at 0.05 level of significance. The results were not significant before it was used for the research as shown below;

VARIABLE	**N**	**Mean**	**Standard deviation**	**df**	r_{cal}	r_{crit}
Patient's opinion towards hypertension management	10	2.3	1.9	***9***	***0.7871***	***0.6664***
Factors associated with patient's opinion	10	3.1	2.6			

Procedure for data collection

The questionnaire was administered to the respondents face to face with the help of two research assistants and the same number was retrieved at the spot. One hundred and eighty-six (186) copies of the questionnaire were administered and one hundred and eighty-six (186) were retrieved. The data was then analyzed.

Data analysis

The data collected were analyzed using percentages and frequencies, while the hypothesis was tested using the Chi-Square test statistic.

Ethical consideration

The researcher introduced herself by presenting a copy of a letter of introduction she obtained from the Head of Department (HOD), Nursing Science Department and the topic for the

research was introduced and instructions given on how the questionnaires should be filled. The researcher reassured the participants that all information must be only for academic purpose and clients' names will not be indicated so as to maintain confidentiality and privacy. The consent of the respondents was adequately gained by giving them adequate information to enable them to express their feelings.

DATA ANALYSIS AND RESULT PRESENTATION

The main purpose of this study is the analysis of data and the presentation of results.

Socio-Demographic data of the respondents (n = 186)

Table 4.1: Socio-demographic data (n= 186)

Variables	**Frequency**	**Percentage**
Age		
15-20years	6	3.23
21-25years	24	12.90
26-30years	41	22.04
31-35years	48	25.81
36-40years	34	18.28
41years and above	33	17.74
Total	**186**	**100**
Religion		
Christianity	163	87.63
Traditional	15	8.07

Muslim	8	4.30
Total	**186**	**100**
Marital Status		
Single	58	31.18
Married	74	39.78
Separated	40	21.51
Divorced	14	7.53
Total	**186**	**100**
Occupation		
Farmer	40	21.51
Trader	48	25.81
Clergy/Pastor	6	3.23
Civil servant	62	33.32
Housewife	30	16.13
Total	**186**	**100**
Tribe		
Ejagham	32	17.20
Efik	56	30.11
Ibibio	24	12.90
Annang	12	6.45

Igbo	38	20.43
Hausa	8	4.30
Yoruba	16	8.61
Total	**186**	**100**
Educational Status		
No formal education	42	22.58
Primary	74	39.78
Secondary	30	16.13
Tertiary	40	21.51
Total	**186**	**100**
Number of Children		
1-2 Children	24	12.90
3-4 Children	98	52.69
5-6 Children	50	26.88
7 children and above	14	7.53
Total	**93**	**100**

Age: The results of the socio-demographic data indicates 6(3.23%) were between 15-20years, 24(12.90%) were between 21-25years, 41(22.04%) were between 26-30years, 48(25.81%) were between 31-35years, 34(18.28%) were between 36-40years and 33(17.74%) were between 41years and above.

Religion: The majority of the respondents, 163(87.63%) practiced Christianity, 15(8.07%) practiced traditional religion and8(4.30%) practiced Islam.

Marital Status: Out of 186 respondents, 58(31.18%) were singles, 74(39.78%) were married, 40(21.51%) were separated and 14(7.53%) were divorced.

Occupation: Out of the 186 respondents, 40(21.51%) were farmers, 48(25.81%) were traders, 6(3.23%) were Clergy/Pastor, 62(33.32%) were a Civil servant and 30(16.13%) were housewives.

Tribe: Majority of the respondents, 56(30.11%) were from Efik, 28(17.20%) were from Ejagham, 38(20.43%)were from Igbo, 24(12.90%)were from Ibibio, 16(8.61%) were from Yoruba, 12(6.45%) were from Annang and 8(4.30%) were from Hausa.

Educational Status: Out of the 186 respondents, 42(22.58%) had no formal education status, 74(39.78%) had attained primary educational status, 30(16.13%) had attained secondary educational status and 40(21.51%) had attained tertiary educational status.

Number of Children: Out of the 186 respondents used for this study, 24(12.90%) had between 1-2 children, 98(52.69%) had 3-4 children, 50(26.88%) had 5-6 children and 14(7.53%) had 7 children and above.

Results for research questions

This section deals with answering the research questions directing the study. The data are presented in tables using simple percentages.

Research question one

What is the opinion of patients concerning the management of hypertension in UCTH, Calabar?

The result is presented in table 4.2.1.

Table 4.2.1a: Opinion of patients concerning management of hypertension in UCTH, Calabar, 2016

VARIABLES	NUMBER OF RESPONDENTS		
	YES	NO	TOTAL
The drugs they give to me makes me very drowsy and that makes me feel very weak	156 (83.87%)	15 (16.13%)	**186 (100%)**
Reduction of salt in my meal makes me not to eat well enough.	98 (52.69%)	88 (47.31%)	**186 (100%)**
The drug thiazide diuretics is used for hypertension and it makes me urinate often.	108 (58.06%)	78 (41.94%)	**186 (100%)**
High blood pressure is measured using the instrument aneroid	158 (89.95%)	28 (15.05%)	**186 (100%)**
Maintaining a vegetation diet may not reduce elevated blood pressure.	162 (87.10%)	24 (12.90%)	**186 (100%)**
Mercury sphygmomanometer is a very reliable instrument for diagnosing high blood pressure.	152 (81.72%)	34 (18.28%)	**186 (100%)**
Eating of fruits, vegetables, and low-fat foods help in preventing hypertension	175 (94.09%)	11 (5.91%)	**186 (100%)**
Eating more whole-grain foods, fish, poultry and nuts helps in preventing hypertension	161 (86.56%)	25 (13.44%)	**186 (100%)**
Limiting sodium, sweets, sugary drinks and red meat helps in preventing hypertension	180 (96.77%)	6 (3.23%)	**186 (100%)**

Table 4.2.1b: Summary of patients' opinion concerning management of hypertension in UCTH, Calabar

VARIABLES	FREQUENCY	PERCENTAGE
Positive	150	80.65
Negative	36	19.35
Total	186	100

The results in table 4.2.1 showed that out of the 186 respondents used for this study, 156(83.87%) affirmed that the drugs they are given makes them very drowsy and that makes them feel very weak, 98(52.69%) affirmed that reduction of salt in meal makes them not to eat well enough, 108(58.06%) agreed that the drug thiazide diuretics is used for hypertension and it makes them urinate often and 158(89.95%) agreed that high blood pressure is measured using the instrument aneroid. Furthermore, majority of the respondents, 162(87.10%) affirmed that maintaining a vegetation diet may not reduce elevated blood pressure, 152(81.72%) affirmed that mercury sphygmomanometer is a very reliable instrument for diagnosing high blood pressure, 175 (94.09%) affirmed that eating of fruits, vegetables, and low-fat foods help in preventing hypertension, 161(86.56%) affirmed that eating more whole-grain foods, fish, poultry and nuts helps in preventing hypertension and 180(96.77%) affirmed that limiting sodium, sweets, sugary drinks and red meat helps in preventing hypertension. Furthermore, it was obtained that out of the 186 respondents used for this study, 150(80.65%) exhibited positive opinions while 36(19.35%) exhibited negative opinions concerning the management of hypertension in UCTH, Calabar.

Research Question Two

What are the various factors associated with patient's opinion concerning management of hypertension in UCTH, Calabar?

The result is presented in table 4.2.2;

Table 4.2.2: Factors associated with patient's opinion concerning management of hypertension in UCTH, Calabar, 2016.

STATEMENTS	NUMBER OF RESPONDENTS		
	YES	NO	TOTAL
Checking my blood pressure weekly is very tiring for me	102 (54.84%)	84 (45.16%)	186 (100%)
The distance to the hospital is too far for me to get there	110 (59.14%)	76 (40.86%)	186 (100%)
The side effect of the drugs makes me not complete the dose required of me	128 (68.82%)	58 (31.18%)	186 (100%)
The attitude of the nurses/doctors always encourages me to take my medications	90 (48.39%)	96 (51.61%)	186 (100%)
My work schedule always makes me forget to check my blood pressure	106 (56.99%)	80 (43.01%)	186 (100%)

The results obtained from Table 4.2.2 showed that out of the 186 respondents, 102(54.84%) asserted that checking their blood pressure weekly is very tiring as a factor associated with their opinions concerning management of hypertension in UCTH, Calabar. Other factors associated with their opinions concerning management of hypertension as identified by the majority of the respondents include; far distance to the hospital (59.14%), the side effect of drugs 68.82%) and working schedule interference with checkup time (56.99%). Nonetheless, some of the respondents, 90(48.39%) asserted that the attitude of nurses/doctors always encourages them to take their medications.

Hypothesis Testing

There is no significant relationship between patient's opinion and factors associated with patient's opinion concerning management of hypertension in UCTH, Calabar.

By application of Chi-Square test, the table below was obtained.

Table 4.3: Relationship between patient's opinion and factors associated with patient's opinion concerning management of hypertension in UCTH, Calabar.

Patient's opinion	Factors associated					Total Response	df	X^2_{cal}	X^2_{crit}
	Tiredness	Distance	Side effects	Nurses/doctors attitude	Work schedule				
Positive	23	15	42	38	32	**150**			
Negative	6	10	4	7	9	**36**	***4***	***10.7957***	***9.4877***
Total	**29**	**25**	**46**	**45**	**41**	**186**			

0.05 level of significance, df= (c-1(r-1)= (5-1)(2-1)= 4, Critical value= 9.49, Calculated value=10.80

Decision Rule

If $X^2_{cal} > X^2_{crit}$, *reject* H_0, Otherwise, accept H_0

Conclusion

Since the X^2*-calculated value(**10.80**)*is greater than the X^2*-critical value (**9.49**),* the researcher rejected the hypotheses which stated that there is no significant relationship between patient's opinion and factors associated with patient's opinion concerning management of hypertension in UCTH, Calabar. This implies that the quality of patient's opinion concerning the management of hypertension is dependent on the factors associated with the opinions of such patients. Therefore, if the factors associated with the patient's opinion are favorable, the opinions of a patient concerning the management of hypertension will be positively inclined.

DISCUSSION

Patient's opinion concerning management of hypertension

The study revealed that majority of the respondents asserted that the drugs they are given make them very drowsy and that makes them feel very weak (83.87%), reduction of salt in meal makes them not to eat well enough (52.69%), the drug thiazide diuretics is used for

hypertension and it makes them urinate often (58.06%) and high blood pressure is measured using the instrument aneroid(89.95%). Results also revealed that majority of the respondents exhibited positive opinions (80.65%) about the management of hypertension in UCTH, Calabar. These findings confirm observation by Arakawa (2012), who found that hypertensive patients had the opinion that a reduction in salt intake helps to control high blood pressure. This is at par to the observation by Gascon, Monsterrat, Bartolome, David & Pedro (2008) observed that patients with high blood pressure expressed their opinions that the adverse effects of drugs were issues of concern. In addition, they identified remarks indicating how they perceived antihypertensive medicines, for example, some were afraid of the medication because it would require that medications would be taken throughout one's lifetime. Some did not like hypertensive medicines because it has lots of side effects, can make them sick and they might get worse instead of better.

Factors associated with patient's opinion concerning management of hypertension

The findings from the study revealed majority of the respondents identified the factors associated with their opinions concerning management of hypertension as follows; checking their blood pressure weekly is very tiring (54.84%), far distance to the hospital (59.14%), side effect of drugs 68.82%) and working schedule interference with checkup time (56.99%). Nonetheless, some of the respondents, 90(48.39%) asserted that the attitude of nurses/doctors always encourages them to take their medications. The above finding is at par with the study by Ekwumfe (2010), in his studies revealed that common patient-related factors for the adherence to antihypertensive medication across countries and ethnic groups include patients believe that medication is unnecessary when symptoms of high blood pressure or stress disappear, a dislike of medication, fear of addiction and the experience of side effects. This is in support of the study of Pham (2012), who documented that factors associated with patients' knowledge of their hypertension status often influence patients' opinion of management of hypertension. Results also showed a correlation between patients' knowledge and their belief toward the management of hypertension.

Hypothesis Testing

There is no significant relationship between patient's opinion and factors associated with patient's opinion concerning management of hypertension in UCTH, Calabar.

The findings in this study showed that the null hypothesis which stated that, there is no significant relationship between patient's opinion and factors associated with patient's opinion concerning management of hypertension in UCTH, Calabar was rejected. This implies that the quality of patient's opinion concerning the management of hypertension is dependent on the factors associated with the opinions of patients under study. This is in line with Pham (2012), who documented that factors associated with patients' knowledge of their hypertension status often influence patients' opinion of management of hypertension.

CONCLUSION

Based on researchers' findings, it can be concluded that; hypertensive patients in UCTH, Calabar have positive opinions concerning the management of hypertension. It was also concluded that,

These findings suggest a need for continuous hypertension management awareness campaigns and also the national health insurance scheme should be strengthened to increase access of the entire patients to hypertension prevention and management services in health centers as this would help to reduce the burden of hypertension in the country.

Implication to Nursing

The study has the following implications for nursing practice:

1. That nurse should carry out awareness campaigns and health education on the importance of hypertension prevention and management in more remote areas.

2. Nurses should also advocate for and encourage hypertensive patients to practice healthy living and healthy lifestyle; so that once any abnormality is discovered, appropriate and prompt medical attention will be taken to prevent further complications.

Recommendations

Based on the findings from this study, the following recommendations were made:

1. Effective and sustained health education of hypertensive patients on the need for healthy nutritional practices should be made.

2. Regular community education on prevention and management of hypertension should be conducted for the promotion of healthy lifestyle. This should involve a cross-section of the community including men/husbands and youths. It is expected that this strategy will help overcome myths/taboos with regard to education.

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