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Level of Awareness of Patients to Symptoms of Hypertension in Rural and Urban Hospitals in Umuahia Abia State: A Comparative Study of Rural and Urban Hospitals in Umuahia, Abia State

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Abstract

The research investigated the prevalence and determinants of hypertension in rural and urban hospitals in Umuahia, Abia state. Related literature was reviewed. Four research questions and two null hypotheses were formulated for the study. The descriptive survey design was adopted for the study. The population for the study comprised of 1470 GOPD clients of urban and rural hospitals in Umuahia. A total of 300 respondents were drawn from the hospitals under study to form the sample size for the study. The simple random sampling technique of luck dip was used to select one urban and one rural hospital, each from the urban and rural hospitals in Umuahia while the stratified random sampling technique was used to determine the proportion of the sample size used for the study in each of the two sample hospitals. Data collected were analyzed using the SPSS software and result presented in frequency tables, percentages and charts for the quantitative analysis while the qualitative data were analyzed using coding and thematic representation. Two hypotheses were also tested at 0.05 level of significance. Findings reveal that majority of the participants have not heard of hypertension and its determinants before. Doctors and nurses should integrate education on the prevention of hypertension as a routine health talk during GOPD clinics.

Keywords*: awareness, hypertension, rural and urban hospitals*

Introduction

Hypertension is a global issue contributing to a significant morbidity and mortality numbers; over a billion people across the globe are living with hypertension and over a tenth of the global annual mortality is attributable to the disease. Hypertension is also commonly regarded as a “silent killer” due to its asymptomatic nature at the early stages, by the time symptoms appear the cardiovascular system must have been subjected to consequential damage. Due to the detrimental impact of non-communicable diseases like hypertension, global leaders representing all 194 WHO member states set a target for a 25% relative reduction in the prevalence of hypertension by 2025.[1-8]

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Hypertension, also known as high or raised blood pressure (BP), is a global public health challenge. It is a chronic medical condition in which the BP in the arteries is elevated thus making the heart to work too hard. It is popularly known as the "silent killer," because it has no specific signs and symptoms in the initial stage. Until a severe medical crisis takes place like heart attack, stroke, or chronic kidney disease. Since people are unaware of excessive blood pressure, it is only through measurements that detection can be done. Although majority of patients with hypertension remain asymptomatic, some people with hypertension report headaches, lightheadedness, vertigo, altered vision or fainting episode.[10-15]

In addition, hypertension is a leading cause of chronic kidney disease, kidney disease progression, and end-stage kidney disease, as well as dementia due to cerebral small vessel disease, enlargement of heart, blindness and cognitive impairment.[16] Hypertension represents one of the most formidable dilemmas, the world has faced in modern times leading to coronary heart disease, stroke and other vascular complications. Hypertension accounts for nearly quarter of all deaths. It increases hardening of the arteries, thus predisposing individuals to heart diseases, peripheral vascular diseases, stroke, heart failure and kidney failure.[17] Hypertension is the commonest disease in Nigeria with over 4.3 million Nigerians classified as being hypertensive. In Nigeria, many people lose their lives to hypertension. The overall prevalence of hypertension in Nigeria ranges from 8% to 64%. However, few studies have assessed the prevalence and associated risk factors of hypertension among adults at tertiary and secondary health care institutions in Nigeria.[18-24]

Research Methods

Research Design

The design adopted for the study was a mixed method research.

Area of study

The study was carried out in one rural and one urban hospitals in Umuahia Abia State.

Study Population

The target population included adult patients' age range (18years above) attending general outpatient clinics at both hospitals, that is, Madonna Catholic hospital and Federal Medical Centre all in Umuahia, Abia State. The projected population is one thousand four hundred and seventy (1470) drawn from their monthly statistics of August 2022 one thousand two hundred and ninety-two (1292) from urban and one hundred and seventy-eight (178) from rural hospital

Sample and Sampling technique

Sample

A total of three hundred (300) respondents drawn for the target population of one thousand four hundred and seventy patients of the selected hospitals under study formed the sample size for the study. However, the above sample size was determined using the Cochrane's formula for descriptive studies as shown below:

$N=Z^2P\ q/E^2$ (Cochrane, 1977).

Where:

N= Minimum sample size required

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Z= the standard normal deviation for a normal distribution taken as 95% confidence interval which corresponds to 1.96
E= Desired level of significance which is 0.05 (5%).
P= Expected prevalence of hypertension from previous study which is 24.8% in Nigeria (Ahmed, Sabitu, Idris, & Ahmed, 2013)
q=1-p = 0.752

Thus the sample size was calculated as follows:

$$N = \frac{1.96^2 (0.248) (1-0.248)}{(0.05)^2}$$

$$= \frac{0.7164}{0.0025}$$

= 286.5 approximately 287

The above 287 was the calculated minimum sample size but was increased to 300, just to compensate for incomplete records. One hundred and fifty (150) respondents each is from each of the two hospitals sampled (FMC and Madonna Catholic hospitals) forming the total sample size of 300 respondents. Qualitative study was not pre-determined but depends on data saturation.

Sampling Technique

The simple random sampling technique of lucky dip was adopted to select one urban hospital from the urban hospitals in Umuahia metropolis, and the urban hospital drawn from this process was the Federal (Medical Centre Umuahia. The same techniques were also employed for the rural hospitals and the hospital drawn for the rural hospital was Madonna Catholic hospital Umuahia.

Stratified random sampling method was used to determine the proportion of the sample size used for the study in each of the two hospitals. This was done using the number of registered clients attending the general-out-patients department (GOPD) clinic for the month. At federal medical Centre Umuahia, an average of 1,292 adults per month are attended to, due to one ailment or the other while that of Madonna Catholic Hospital is 178 adults per month (Nurses clinic register, July, 2023), and based on this number, their ratio was used to select the respondents by systematic random sampling method. Every alternate client was selected for the study using the nurses register for different clinic days. Purposive sampling was also used for qualitative study for those attending general outpatient clinic a total of 26 participants were selected which utilized focus group discussion and as a method of data collection.

Inclusion Criteria

Adults Male and female age (18years and above) attending general outpatient (GOPD) clinic at FMC Umuahia and Madonna Catholic hospital who were willing to participate.

Exclusion criteria

- Those below 18years of age.

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- Individuals with debilitating illnesses were not enrolled into the study.
- Those who refused to participate and those who were unable to communicate effectively.

Ethical consideration

Ethical approval was obtained from the health ethics and research committee of the Federal Medical Centre Umuahia and Madonna Catholic hospital with an introduction letter from the head of department of Nursing Science, Imo State University, Orlu Campus, including the researcher's application letter before accessing the information. All information obtained was treated confidentially. The rules and policies governing the hospitals were observed.

Procedure for data collection

The instrument was used to obtain information from adults who met the inclusion criteria. Three researcher assistants were recruited for data collection. The research assistants were registered nurses who work in the two hospitals. They were trained on the purpose of study, selection of respondents, distribution and retrieval of the questionnaire. Patients were enrolled into the study in their order of arriving in the hospital. Data collection was done on a daily basis at the General Out Patient Department clinic of the hospitals. Following self-introduction of researcher (or assistant) and establishment of rapport, consent to participate in the study, those who met the inclusion criteria were given a copy of the instrument after the purpose of the study had been explained. They were asked to read the contents as carefully as possible and respond to each item as applicable. For those who could not read and or write, the researcher or assistants helped by interviewing the respondents guided strictly by the contents of the instrument and filling in the responses as objectively as possible.

For the qualitative aspect of this study focus groups discussions were conducted using interactive activities to learn about patient's view on hypertension. Focus Group Discussion involves two to eight people on average so group size was between 2 to 5 participants and a total of 6 sessions was conducted within August and September, 2022 each lasting 40-60minutes, 26 adults participated. The researcher and three trained assistants were in the group as note taker, recorder and lead moderator. The discussion was semi-structured using Focus group discussion guide, and candidates were asked to talk freely on questions and issues raised during the discussion on hypertension. The FGD guide explored the knowledge of the candidate on prevalence and determinants of hypertension making recommendations on prevention and control of hypertension. The discussion was carried out openly among the adult as there was room for expression of views. Every participant was given a chance to respond to the questions to the best of their understanding. All the responses were noted and organized into the themes. Many of the participants became aware of the disease hypertension and the determinants during the course of the discussion.

Method of data analysis

Data obtained was collected and analyzed using statistical package for social science (SPSS software for windows version 20.0). Knowledge of hypertension was measured using five-point scale. It is a psychometric response scale in which the respondents specify their level of agreement to a statement typically in any of the four points of: strongly Agree (SA), Agree (A), Disagree (D),

and Strongly Disagree (SD). Thereafter, the scores were aggregated and those with total score of < 2 = poor, while > 2 were good and so on.
Descriptive statistics was presented in frequency tables and percentages, categorical variables and mean and Standard deviation for quantitative variables. Chi-square test was used to test association between prevalence and determinants of hypertension like age, educational status, marital status, occupational status and knowledge of causes of hypertension like blood pressure, weight and body mass index.

Results

Table 1: Awareness level of hypertension in rural and urban hospitals in Umuahia

VARIABLES	CATEGORY OF AILMENT	URBAN (%)	RURAL (%)	X2	P-VALUE
AWARENESS OF HYPERTENSION		118 (91.4)	97(74.5)	9.07	0.003*
KNOWLEDGE OF HYPERTENSION AS					
DISEASE OF THE ELDERLY		54 (35.6)	35 (35)	0.02	0.882
	Life–long disease	73 (48.1)	10 (10)	35.1	0.001*
	Curable disease	22 (14.5)	30 (30)	6.45	0.011*
	Evil spirit	3 (1.8)	24 (24)	21.40	0.004*

From the table, it was observed that majority of the urban patients were significantly aware of hypertension and were equally more knowledgeable about hypertension when compared to the rural hospital patients who thought hypertension was caused by evil spirit, as well as being a curable disease. ($\chi 2$ =9.07, p=0.003)

Discussion

The findings showed that out of the 300 respondents, only 37 had ever been aware of symptoms of hypertension and utilized the lab screening representing 10.3%. The remaining 263 (89.7%) had never had hypertension screening. Also, during the FGD, only 6 (21.3%0 out of 26 participants

have been aware of the symptoms of hypertension. this suggests that the level of awareness is very low which is attributed to ignorance of hypertension and its determinants. Also, almost all the laboratory tests were done as an opportunistic screening exercise that is based on the recommendation of the health personnel as stated by study participants during the focus group discussion. Majority of the adults who are aware of the screening test got their information from healthcare providers. This could also be attributed to the fact that when people are healthy, they don't bother about preventive services as they have other contending problems. It is seen as generally not important and mainly nonchalant attitude to their health. Therefore, it can be concluded that the level of hypertension symptoms awareness to patients attending clinics in rural and urban hospitals is low because at FMC Umuahia and Madonna general hospitals an average of 1,292 teenagers and 178 adults respectively were attended to monthly. The lab investigation services are not being patronized considering the small number of adults that attend the general out patients clinics. This is one of the reasons the rate of hypertension is still high in developing countries like Nigeria compared to developed countries like United Kingdom and America where the incidence is very much reduced.[25]

Conclusion

Majority of the adults claimed that they have never heard of hypertension and the determinants before, while few of those who claimed to have heard of it felt no need to utilize the laboratory investigations.

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