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DIPLOMA PROGRAMMES

THE UNDERSTANDING OF NEWLY DIAGNOSED PATIENTS WITH HYPERTENSION (FROM 2YEARS AND BELOW) AT HOLY FAMILY HOSPITAL, BEREKUM.

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2024

DECLARATION

We hereby declare that this submission is our own work towards the Diploma in General Nursing/Midwifery and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of diploma of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

The study focused on the understanding of newly diagnosed patients with hypertension (from 2years and below) at holy family hospital, Berekum. The study has three main set objectives; to identify the general knowledge newly diagnosed hypertensive patients have on hypertension, to find out causes and predisposing factors on hypertension and to explore the extent to which patients at Holy Family Hospital, Berekum understand the pharmacological and non-pharmacological management of hypertension. Simple random sampling was used in the selection of patients to participate in the study. In all, 50 people were selected from the hypertensive clinic of Holy Family Hospital, Berekum for this study. The data for the study was collected by administering the questionnaire to the participants.

The respondents knowledge were assessed on hypertension, it came out clearly that they have fair knowledge on their condition (hypertension) as they were able to give fair information regarding causes (too much stress /overthinking ,more salt intake or spicy foods),they will report to the facility within month or two(68%) they have adequate signs and symptoms like migraine ,palpitations just to mention a few though reasonable number did not show no sign or symptom this might be as a result of being new clients or the disease in question (hypertension). From the research, it came clearly that they adhere to the drug as prescribed by their doctors once daily or twice daily pertaining to newly diagnosed hypertensive patients. At the same time the effectiveness of the drug were very effective hovering around 96%. Some side effects were well known among respondents (headache, feeling weak, general feeling of unwell) (92%). Notwithstanding, there were some challenges ranging from forgetfulness which affects the interval of drug taking leading to skips of dosage and finally some are not able to tolerate some side effects of the drug

The study recommend that, The facility's method of managing hypertensive patient is recommendable in worth in relating it to other facilities, they should stress more on drug regimen and also further research should be done using clients less than 6 months as to know how newly diagnosed hypertensive patient can be managed properly. The study concluded that respondents have fair knowledge on hypertension. The overall stated causes of hypertension, drugs as well as side effects stated by respondents were in line with the ones stated in the literature.

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ABBRAVIATION

1.	WHO	-	World Health Organization
2.	%	-	Percent
3.	OPD	-	Out Patient Department
4.	NICU	-	Neonatal Intensive Care Unit

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CHAPTER ONE

INTRODUCTION

1.0Background to the study

The rise of cardiovascular conditions over the years which hypertension plays a major role in it has cause a stir in our lives as humans. New cases are been recorded every day in our various health facilities. The American Heart Association defines hypertension as a persistent rise in blood pressure exceeding 140/90 mmHg or a systolic blood pressure above 140 mmHg or a diastolic pressure above 90 mmHg (American Heart Association, p. 2018). Hypertension is a major public health challenge, affecting populations from both economically developed and developing countries globally (Lloyd-Jones , Adams, & Brown, 2018). The disease remains a major risk factor for development of cardiovascular disease (CVD), which was responsible for 17.7 million deaths worldwide in 2015 (i.e., 45% of deaths) (World Health Organization, 2017).

Hypertension has varying prevalence in different regions of the world. A national survey in Canada, United States of America (USA) and United Kingdom (UK) showed that the prevalence of hypertension was lower in Canada (19·5%) than in the USA (29%) and UK (30%) (Joffers, et al., p. 2022).

The highest prevalence of hypertension is reported in Africa at 46% of adults aged 25 years and above (WHO, 2017). Hypertension poses a threat to the health of people living in sub-Saharan Africa and plays a major role in morbidity and mortality in the sub-region (Bloomfield, Bradbury, Grubb, & Newby, 2020). West Africa has a hypertension prevalence of 16% among its inhabitants (Opie & Seedat, p. 2021).

More than 80% of the burden of hypertension in low-income and middle-income countries is because of the lack of information and poor self-care practice (American Heart Association, 2015). Lack of knowledge about hypertension is a major challenge in controlling hypertension.

To reduce this burden, patients have to be counseled on lifestyle changes when they visit their health facility and take measures regarding self-care (Brown & Bussel, p. 2020).

The self-care involves medication adherence, eating low-fat diet, regular physical exercise, limiting alcohol consumption, not smoking, weight reduction, self-monitoring of blood pressure (BP), regular health care visit, and reducing stress (He, Whelton, Appel, Charleston, & Klag, p. 2019).

Although the exact cause of primary hypertension is unknown, there are several no-modifiable and modifiable risk factors that have been linked to the condition. Non-modifiable risk factors for hypertension include age, sex, race, family history, and genetic composition, whereas modifiable risk factors include obesity, excessive salt intake, inactivity or lack of exercise, high fat diet, tobacco use, and alcohol consumption (Sawicka, et al., p. 2020).

Blood pressure control involves the implementation of a number of lifestyle modifications as well as the use of one or more antihypertensive drugs. Lifestyle modifications include (amongst others) adjustment of the diet, cessation of smoking, reduction of alcohol intake, weight reduction or control, increase in physical exercise, and stress management. Although lifestyle modifications are important, patients may also require one or more antihypertensive drug(s) to achieve effective blood pressure control. These drugs will have to be taken by the patient throughout his/her life (Mancia, Fagard, & Narkiewicz, p. 2019).

According to the 2014 Ghana Demographic and Health Survey (GDHS), the overall prevalence of hypertension among persons aged 18–49 years was 13.0%, with nearly half of them not being aware of their hypertensive status (Sanuade, Boatemaa, & Kushitor, 2018). A systematic review by Bosu also reported a prevalence of adult hypertension 38% been unaware of their hypertension statues (Bosu, 2020).

A study in Ghana reported that the overall prevalence of hypertension in the surveyed population was 28.1%, and this increased with age. Age specific prevalence of hypertension for participants aged 18–39 years, 40–59 years, and ≥60 years were 12.9%, 33.8%, and 53.3% respectively (Dosoo, et al., 2019). This indicated that, much more cases were recorded among the aged.

In spite of the fact that hypertension is easy to identify, and that there are a variety of pharmaceutical and non-pharmaceutical (such as salt reduction, dietary modification, weight loss) and evidence-based treatment options available, we are failing miserably at hypertension

control. Most people especially the young ones and the newly diagnosed hypertensive patients are finding it difficult to cope with the condition and its associate adjustments.

If we can gain an understanding of how these people with hypertension who have been newly diagnosed especially within the period of two (2) years are coping with the condition and the amount of understating they have acquired in relation to the modifications needed for healthy living, we will be able to modify the ways in which we communicate with patients in order to increase adherence. The aim of this study was to explore the perception and understanding of newly diagnosed hypertensive patients (from two years and below) at Holy Family Hospital, Berekum.

1.1 Problem Statement

Many patients with hypertension are asymptomatic and predisposed to fatal cardiovascular events such as strokes and myocardial infarctions; hence, the disease is described as a "silent killer". Depending on the aetiology, hypertension could be classified as primary (affecting 90–95% of patients) or secondary (resulting from an underlying condition) (Sawicka, et al., 2020). Newly diagnosed hypertensive patients mostly find it difficult in adhering to certain instructions that come with the management of the condition, instructions such as daily taking of anti-hypertensive drugs, diet modification, frequent medical checkup and others.

In spite of the available treatment options such as the use of anti-hypertensive medications and healthy lifestyle recommendations for blood pressure control, controlling high blood pressure has been a worldwide problem even in high income countries (Bosu, 2020). Hypertension is one of the major killer diseases in Ghana with a prevalence rate of 30-40% (Ministry of Health, 2019).

Studies in the Ashanti region determined the prevalence of hypertension to be 33.4% in urban areas and 27.0% in rural areas (Dosoo, et al., 2019). More than half of all admission cases and 70% of all deaths at the Korle-Bu teaching hospital are due to hypertensive disorders (Ministry of Health, 2016). Hypertension is associated with severe complications such as cerebrovascular accidents and myocardial infarction. Therefore, its prevention and control are of essence (Dosoo, et al., 2019).

A study conducted in the Bono Region, Berekum reported the prevalence of hypertension to be (29%), of the subjects with hypertension, only (35%) were aware of it, (22%) were on treatment and (6.0%) had their blood pressure controlled (Bosu, 2020).

In 2021, a survey that was conducted by the Komfo Anokye teaching Hospital led by the cardiovascular department recorded more that 4,000 new hypertension cases. This indicates the spike in the hypertensive cases and the need to actively find ways to explore the perception and understanding of the newly diagnosed hypertensive patients and ways to heavily implement factors that will help improve the health of these patients and also help gather more information on the subject of study; hence the reason for this study.

1.2 General objective

To explore the understanding of newly diagnosed hypertensive patients (from 2years and below) at Holy Family Hospital, Berekum.

Specific objective

1. To identify the general knowledge newly diagnosed hypertensive patients have on hypertension.
2. To find out causes and predisposing factors on hypertension.
3. To explore the extent to which patients at Holy Family Hospital, Berekum understand the pharmacological and non-pharmacological management of hypertension.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter contains review of relevant literature related to the research topic. A well-structured literature review begins with broad or general information, then narrows the focus to those studies most closely related to the research problem.

2.1 Definition

Hypertension is defined as a systolic blood pressure greater than 140 mm Hg and a diastolic pressure greater than 90 mm Hg based on the average of two or more accurate blood pressure measurements taken during two or more contacts with a health care provider (Hinkle & Cheever, 2019).

In the total U.S. population of persons with hypertension, 90% to 95% have primary hypertension, high blood pressure from an unidentified cause. The remaining 5% to 10% of this group have secondary hypertension, high blood pressure related to identify causes. These causes include narrowing of the renal arteries, renal parenchymal disease, hyperaldosteronism (mineralocorticoid hypertension), certain medications, pregnancy, and coarctation of the aorta (Hinkle & Cheever, 2019).

Hypertension is sometimes called the “silent killer” because people who have it are often symptom free. In a national survey conducted from 2003 to 2004, 24% of people who had pressures exceeding 140/90 mm Hg were unaware of their elevated blood pressure (Hinkle & Cheever, 2019).

2.2 Overview of Hypertension

Hypertension, also called high blood pressure, is a non-communicable disease. It contributes to the burden of cardiac disease, cerebrovascular accident, renal failure, premature death and disability. Its impact is mostly felt in low and middle-income countries with weak health systems (WHO, 2020). Hypertension is mainly asymptomatic in most patients. Clinically, hypertension may manifest as persistent headache, blurred or double vision, nosebleeds and shortness of breath (National Health Service, 2019).

Over 95% of hypertensive cases have no known cause and are termed essential hypertension, primary hypertension or idiopathic hypertension (Bloomfield, Bradbury, Grubb, & Newby, 2020). Secondary hypertension accounts for approximately 5% of hypertensive cases. It is a type of hypertension with an identifiable cause such as renal disease, endocrine disease, obesity, alcohol abuse, coarctation of the aorta and pregnancy induced (Bloomfield et al., 2020).

In Ghana, hypertension is the second leading cause of out-patient morbidity in adults older than 45 years (Ministry of Health, 2018). Addo et al., (2012) in a hypertensive population review reported a high urban prevalence compared to rural areas in Ghana. They also reported a high prevalence in men compared to women.

The prevalence of hypertension has also been reported to be high in rural southern Ghana compared to northern Ghana (Kunutsor & Powles, 2018). Management of high blood pressure can be achieved by lifestyle modifications and pharmacological therapy. Lifestyle modification plays an important role that complements pharmacological therapy and have significant benefits in reducing high blood pressure and preventing cardiovascular complications (Wen, et al., 2018).

Hypertension adds to the health worries of an individual as it alters an individual's eating pattern and lifestyle. Anti-hypertensive medications are expensive and there is also a hassle need to take them daily. The long-term complications of hypertension such as cardiac failure, renal failure and cerebrovascular accident can also occur. The average life span of a patient with hypertension is five years less than a non-hypertensive patient due to the ill effects of hypertension (Gupta, 2019). Patient's relationships with friends and family as well as their income status can be negatively affected due to the emotional and physical restrictions of hypertension (Golay, Lagger, & Giordan, 2022).

2.3 Misconceptions Patients have About Hypertension

Several misconceptions were reported; hypertension is common and not cause for much concern, it is not possible to prevent hypertension, hypertension is a geriatric problem, hypertension medicines can be stopped if the blood pressure is normal (BLK Hospital, 2019). A prospective questionnaire study of the misconceptions of hypertension by hypertensive patients was carried.

In the total U.S. population of persons with hypertension, 90% to 95% have primary hypertension, high blood pressure from an unidentified cause (Oparil, Zaman & Calhoun, 2003).

The remaining 5% to 10% of this group have secondary hypertension, high blood pressure related to identify causes. These causes include narrowing of the renal arteries, renal parenchymal disease, hyperaldosteronism (mineralocorticoid hypertension), certain medications, pregnancy, and coarctation of the aorta out in Lagos, Nigeria.

The study found that (65%) believe achieving blood pressure control meant a permanent cure and will therefore require no more antihypertensive medication. (21%) subjects feel strongly that they will achieve better blood pressure control and possible cure using alternative means, like homeopathic medicine (30.1%), native doctors (23%), and (46%) in prayers and faith healing (Oke & Bandele, 2018).

An exploratory descriptive qualitative study was conducted on hypertensive patients attending the outpatient department of Katleho District Hospital. The study indicated that there were misconceptions about hypertension too, particularly with regard to causes and explanations pertaining to the symptoms: “What kind of illness is high blood? People say it is the flow of blood”; “My blood didn’t flow well”; “My child was not in the placenta. She was just in the stream of blood” and “My nerves were also stiff and painful at the back of my head”. There was also a misconception that too much sugar increases blood pressure: “But eating a lot of sugar, perhaps sweet tea, drinks that make my blood pressure high” (Mpinda, Tumbo, Govender, & Mills, 2020).

2.4 Knowledge of Patients on Causes and Predisposing Factors of Hypertension

Some risk factors have been mentioned in literature as predisposing factors for hypertension (Srinivas & Satyanarayana, 2019). These factors are related to an individual’s lifestyle and can be modified to prevent the development of hypertension. These factors include excessive alcohol intake, cigarette smoking and bad eating habits such as excessive salt and fat intake, late night eating, among others (Sainju, Shah, Geethanjali, & Sankaran, 2015).

A national telephone survey was conducted comprising 1001 randomly selected men and women older than 40 years of age to determine the level of public awareness, understanding and misconception of hypertension in Canada. The study that respondents had limited knowledge of lifestyle issues affecting hypertension, despite 44% indicating that they were overweight and 18% identifying themselves as smokers (Petrella & Campbell, 2020).

A Canadian study found that almost two-thirds (63%) thought hypertension had clearly identifiable signs or symptoms, although they believed that hypertension was not a serious medical condition. Most respondents (59%) falsely believed that they would not develop hypertension and 38% thought that they would be able to control hypertension without the aid of a physician if they did have hypertension (Petrella & Campbell, 2020).

Psychological stress, ageing and genetic or family history has also been cited as risk factors for development of hypertension (Sainju, et al., 2015). There have also been differences in the risk factors being cited as predisposing factors of hypertension based on the population under study. In a study by Shaikh et al., 2011 on knowledge of hypertension risk factors among Muslim community, alcohol was not mentioned as one of the risk factors (Shaikh, et al., 2018).

A lot of studies have been done to assess the knowledge of hypertensive patients on predisposing factors to hypertension. Some of these studies noted a high incidence of knowledge among hypertensive patients on hypertension while others recorded low incidence of knowledge of risk factors among hypertensive and non-hypertensive patients (Sowemimo, Ajayi, , Akpa, & Ossai, 2019). It is interesting to note that some studies observed a low level of knowledge of hypertension and its risk factors among educated hypertensive patients. A study by Wijayathunge and Hettiaratchi on the knowledge of hypertension and its risk factors among school teachers in Nuwaragam Palatha-East educational division, Anuradhapura district recorded a low level of knowledge of hypertension and its risk factors among them (Wijayathunge & Hettiaratchi, 2020).

A study in a sub-urban Nigerian community showed low levels of knowledge of hypertension, with only 18% of respondents having knowledge of risk factors of hypertension. Other studies from the sub region have shown similar results (Oladapo, Salako, Sadiq, Soyinka, & Falase, 2018).

A prospective questionnaire study of the knowledge on risk factors of hypertension by hypertensive patients was carried out in Lagos, Nigeria. The study found that 27% of subjects were not aware of the effect of obesity, 29% of respondents were unaware of the effect of the smoking, 27% the effect of exercise, and 20% the effect of excessive alcohol consumption on hypertension. Enquiry into the effects of other risk factors revealed that 15% were unaware of

the effect of excessive salt consumption and high-fat diet (26%). Interestingly, a fairly high percentage feels engaging in regular sexual intercourse worsens hypertension.

Heredity (7.2%), diabetes mellitus (6.5%), pregnancy (4.6%), kidney disease (4.3%), excessive alcohol and cigarette consumption (3.6%), sedentary lifestyle (3.3%), obesity (2.9%), and thyroid disease (1.6%) were among the known causes of hypertension mentioned (Oke & Bandele, 2018).

A study in Nigeria found that the knowledge of the risk factors attributed to hypertension was relatively low among the respondents. 35% of the respondents agreed very strongly that excess smoking can cause hypertension. 38% agreed but not strongly. About 19% was not certain. Also, 34% strongly agreed that excess alcohol intakes could cause high blood pressure while 44% agreed but not strongly. Few people could link heredity to hypertension. About 28% strongly agreed that hereditary could be a determinant factor in hypertension while 36% agreed but not very strongly. About 30% strongly agreed that socio-economic status is a predisposing factor in hypertension. About one-third of the respondents strongly agreed that the elderly people are prone to hypertension than the young adults. 41% agreed with this as well but not strongly. Another 37% of the respondents strongly linked stress to high blood pressure. The study concluded that knowledge about the risk factors on hypertension was poor (Abdullahi & Amzat, 2018).

A hospital-based descriptive cross-sectional study design was conducted Ethiopia. The study found that most of the respondents (79.4%) and (88.3%), were aware of about the negative impact of smoking of cigarette and alcohol drinking, respectively. The study concluded that increasing patients' awareness and intervention on medication adherence, low salt diet consumption, physical activity, weight management, cigarette smoking cessation, and alcohol consumption reduction is important (Kassahun, et al., 2020).

A community-based cross-sectional study was conducted in two contiguous districts (Kintampo North Municipality and Kintampo South District) in the middle part of Ghana between October 2015 and December 2016. Risk factors found to be associated with one being hypertensive were current tobacco usage (3.2%), prediabetes (10%), and hypercholesterolaemia (59.9%), whereas being active in sports (21%) and doing vigorous work (85%) were both less associated with

hypertension. Risk factors were the same for both male and female subjects across the different age groups (Dosoo, et al., 2019).

A cross-sectional study, which employed both qualitative and quantitative methods was conducted knowledge of hypertension among people living in rural communities in Ghana. The study found that majority (87.2%) of respondents had heard about hypertension and about 79% believed poor diet could cause hypertension. Knowledge on the influence of inactivity and weight gain on hypertension was extremely low (11% and 3% respectively).

Respondents' knowledge on the importance of physical exercise and stress reduction in the prevention of hypertension was equally very low (4.3% and 2.7% respectively). The study concluded that there is an increased prevalence of hypertension, knowledge gaps and misconceptions surrounding hypertension in rural communities in Ghana (Agyei-Baffour, Tetteh, Quansah, & Daniel, 2018).

2.5 Pharmacological and Non-pharmacological Management of Hypertension

During recent decades, pharmacological treatment of hypertension has progressed enormously. Many new effective drugs have become available for treatment of hypertension. Even so, many hypertensive patients have still not reached target levels of blood pressure (Kumpusalo, Parnanen, & Takala, 2016). Traditionally, poor treatment outcomes have been blamed on patient noncompliance (Rudd, 2019).

Management of hypertension is basically categorized into pharmacological and non-pharmacological interventions. The non- pharmacological intervention which mainly consists of life style modifications including dietary modification, exercises etc. are usually the first line of managing an otherwise mild hypertension (Kassahun, et al., 2020). However, in severe hypertension, a combination of non-pharmacological and pharmacological intervention which involves the use of medicines which are used to achieve B P control (Sainju, et al., 2015).

Pharmacological and non-pharmacological strategies are mainly employed in the management of hypertension (Seyedmazhari, 2020). The pharmacological strategies involve using antihypertensive medications such as beta-blockers, beta-blockers with intrinsic sympathomimetic activity, alpha-1 blockers, combined alpha and beta-blockers, vasodilators and angiotensin II receptor blockers (Hinkle & Cheever, 2014).

Non-pharmacological strategies in the management of hypertension include dietary intake moderation or reduction (particularly saturated fats and excess sodium consumption), regular exercise and avoidance of exposure to active and passive tobacco smoke (Sliwa, Stewart, & Gersh, 2019).

Advice and counselling in key areas of increased risk factors such as smoking, sedentary behaviour, poor dietary habits, raising awareness of cardiovascular diseases, the importance of adhering to prescribed treatment and lifestyle changes serve as a significant approach to management of hypertension (Sliwa et al., 2022).

A descriptive, quantitative operational study was conducted among chronic hypertensive patients collecting their medication from PHC facilities in the Vhembe District, South Africa. Convenient and consecutive sampling was used to recruit between one and 15 hypertensive patients at each of the 50 PHC facilities as part of normal facility operations. This resulted in a final sample of 253 patients. The findings of the study indicated that less than half (46.9%) of the patients indicated that they were aware of the fact that they can do something such as exercise to help control their BP. Half (50.9%) of these indicated that to reduce, or stop, salt intake can reduce high BP. Nearly a third (30.7%) indicated that reducing stress can assist with reducing high BP. A few (13.2%) mentioned other activities such as limiting sugar intake, going to church or praying, stopping smoking and alcohol, eating grape fruit and talking to doctors. Majority of patients (98.8%) knew that taking anti-hypertensive medicines as prescribed is important to control BP and 83.7% knew the benefits of taking these medicines correctly. minority of patients (4.3%) did not know that smoking is dangerous to health and 4.7% did not know that excessive alcohol is dangerous to hypertensive patients. More than half (59.8%) of the patients indicated that they were doing some form of physical activity, of which the most common activity was playing soccer. Another common activity was jogging; however, the frequency of jogging was not well explained. Very few (3.6%) patients indicated that they consumed alcohol, and only 11.6% indicated that they were smoking, either cigarettes or snuff (Rampamba, Meyer, Holberg, & Godman, 2018).

A 2-stage sampling method recruited 4141 participants sampled from 20 communities in Western China. A face-to-face structured questionnaire investigation was carried out for all participants. In this study, 65.0% of participants were aware of their BP and 75.3% knew they

are hypertensive patients; 88.9% took their medications regularly and 70.9% measured their BP regularly.

A total of 66.7% of those who acknowledged they are hypertensive were treated, and intake of medication(s) was the most appropriate treatment category (Zhang & Zhu, 2018)

CHAPTER THREE

MATERIALS AND METHODS

3.0 Introduction

This chapter describes the research design and methodology. This includes the study area, study population, sample and sampling technique, data collection, analysis and ethical considerations.

3.1 Study area

The Holy Family Hospital, Berekum is situated in the Bono Region of Ghana specifically Berekum. Is located at New Biadan. It shares boundaries with Holy Family Nursing and Midwifery Training College in Berekum. Patients from other parts of Ghana and neighboring country like La 'Cote D'evoire visits the hospital. The hospital has a bed capacity of about 270 beds and provides the following services; General Surgery, Child Health, Obstetrics/Gynecology, Ultrasonography, Ophthalmology, Physiotherapy, Laboratory Investigations and Blood Transfusion. The rest are X-Ray Investigations, HIV/AIDS (VCT, ART, and PMTCT), Special Diabetic Clinic, Special Hypertensive Clinic, Special TB Clinic, Special eye clinic, Pharmacy and Morgue Services. The hospital has the following existing departments (Wards): Medical Ward (male and female), Maternity Ward, Surgical Ward (male & female), Children's Ward, neonatal intensive care unit (NICU), Labour ward, Outpatients Department (OPD), Antenatal Clinic and Operating Theatres for general surgeries. The hypertension clinic where we conducted our research is also situated at the premises of the hospital, the clinic has a large waiting space where client sit to wait to be attended to. It also comprises of two consulting rooms. The working hours (including consulting, reviews, diagnosing and general education are Tuesdays and Fridays from 8am to 1pm.

3.2 The study population

The target population consisted of patients with hypertension at Holy Family Hospital, Berekum. However, the accessible population were hypertensive patients attending hypertensive clinic for review who has been diagnosed two years and below.

3.3 Study design

The study was a cross sectional descriptive study. The study used this design because there was the need to gather data on the situation over the period of conducting the study and the populace were Out Patient Department (OPD) clients

3.4 Sampling technique and size

Simple random sampling was used in the selection of patients to participate in the study. With permission from the staffs and patients, records of hypertensive patients were taken and measurement were put in place to only selected populace who have history of hypertension not more than two years. A total of 50 hypertensive patients who attended hypertensive clinic for review were selected for the study.

3.5 Data collection methods and instruments

Written questionnaire was used for the data collection on socio demographic data as well as the specific objectives of the study. Participants were encouraged to ask questions for clarifications and answers were provided for such questions. Since some of the respondents were not literates, explanation of some terms was made to them. The data was collected within the space of 5 days. Each respondents used approximately 30 minutes to answer the questionnaire.

3.6 Data analysis technique

Data was entered and analyzed using Microsoft Excel and results was presented in the form of frequencies and percentages.

3.7 Ethical consideration

Ethical clearance was obtained from the heads of Holy Family Hospital, Berekum. Hypertensive patients attending hypertensive clinic were given a consent form to sign.

The research team believed that maintaining the confidentiality and anonymity of the participants is crucial to this study. Informed consent was obtained after comprehensive explanation of the purpose and procedure of the study to the participants. Participants were informed about their right to withdraw or refuse to be part of the study at any point in the course of the study and were assured of confidentiality of all information that was obtained.

Furthermore, the identities of the participants were not disclosed, and only aggregate data was reported. Moreover, participants were fairly selected, no form of harm and discomfort was done.

The research team ensured no form of research misconduct transpired throughout the period of the study.

3.8 Limitations of the Study

Financial constraints; no sponsorship was obtained for the study hence a small sample size of 50 was used making generalization of finding impossible.

Time constraints; the time for the study was quite short and did not allow for the use of larger sample size.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.0. Introduction

This chapter deals with analysis of data collected from the field of study and the results obtained from the analysis. The data analysis was done with Microsoft Excel and was presented in tables and figures.

4.1 Demographic Variables

For the purpose of the study, the demographic data of the respondents were analyses as follows.

The sex distributions of the respondents show that; 68% (34) were females whiles 32% (16) were males.

In analyzing age distribution among the respondents, majority 30% (15) were between the ages of 51-60 years followed by 26% (13) who were between 41-50 years, 22% (11) were between 30-40 years, also, 14% (7) were below 30 years and lastly 8% (4) were respondents who were above 60 years.

In trying to find out their marital status, majority 78% (39) were married, 14% (7) of the respondents were single and 8% (4) were divorced.

The religious believe of the respondents were analysed and was found out that, majority 84% (42) stated they were Christians whiles 16% (8) were Muslims.

In trying to know about the number of months respondents were when they were diagnosed of hypertension, majority 48% (24) were between 31-45 years followed by 46% (23) between 46-60 years and lastly 6% (3) were below 30 years.

All the above information indicated in table 1 below

Table 1: Respondent Demographic Variables

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	16	32
	Female	34	68
Age	Below 30	7	14
	31-40	11	22
	41-50	13	26
	51-60	15	30
	Above 60	4	8
Marital status	Single	7	14
	Married	39	78
	Divorced	4	8
Religious believe	Christianity	42	84
	Islamic	8	16
Ages respondents were diagnosed of Hypertension	Below 30	3	6
	31-45	24	48
	46-60	23	46

In relation to table 1, all the demographic data gathered from the respondents have been analysed and its corresponding frequency and percentages presented in the table.

Newly Diagnosed Hypertensive Patients General Knowledge on Hypertension was assessed, the following were the outcome

4.2 In assessing the opinions of the respondents, the following are some of the causes of hypertension stated by the respondents;

Respondents were assessed on their opinion about some of the causes of hypertension. 40% (20) of the respondents indicated that too much intake of salt (too much intake of spicy foods), 30% (15) also stated too much stress (overthinking). 16% (8) of the respondents indicated that late sleeping (unable to have adequate sleep at night). 10% (5) also indicated too much fat intake.

4% (2) of the respondents also mentioned that taking in too much sexual enhancement drugs to be factor in the cause of hypertension.

As indicated in table 2 below;

Table 2: Causes of hypertension

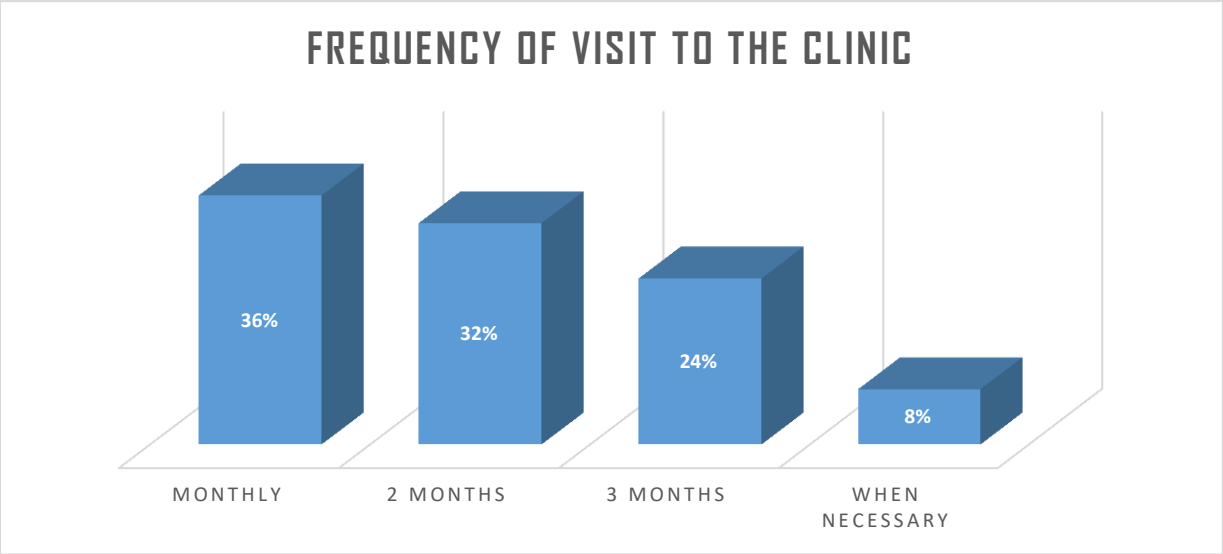
Causes of hypertension	**Frequency (n)**	**Percentage (%)**
Too much stress/ Overthinking	15	30
Late sleeping/ Unable to have adequate sleep at night	8	16
More salt intake/ When you take in too much spicy food	20	40
Too much fat intake	5	10
Taking in too much sexual enhancement drugs.	2	4
Total	50	100

Figure 1: Shows the frequency of attendance to the clinic by the respondents.

In trying to know the frequency at which respondents visit the clinic, 36% (18) of the respondents visit the clinic monthly for review, 32 % (16) of the respondents visits the clinic every two months. 24% (12) of the also have their visit every 3 months and 8% (4) of the respondents stated they only visit the clinic when necessary.

As indicated in figure 1 below;

Figure 1;



4.2.1. Signs or symptoms that indicate increase in respondents blood pressure in respondents.

The following are some of the symptoms the respondents indicated they feel during rise in their blood pressure above normal: 34% (17) of the indicated they experience headache / migraine. 24% (12) indicated they do not experience any sign or symptom 22% (11) indicated palpitation.12% (6) stated that they feel tired easily.8% (4) stated dizziness. as indicated on table 3 below

Table 3: Symptoms that indicate rise in blood pressure of respondents

Symptoms	**Number of respondents**	**Percentage of respondents (%)**
Headache / Migraine	17	34
Palpitation	11	22
Easy tiredness	6	12
Dizziness	4	8
No signs and symptoms	12	24
Total	50	100%

4.2.2. Reason to stop taking antihypertensive drugs by respondent

In assessing the respondents opinion on what will make them stop taking antihypertensive drugs, all respondents indicated they will not stop taking the drugs.

4.2.3 Number of times respondents check their blood pressure apart from reviews.

In trying to know how often the respondents checked their blood pressure apart from review, 40% check their blood pressure every day. 24% also check their blood pressure once a week. 20% indicated their blood pressure is normally checked whenever they feel unwell. 16% stated they check their blood pressure on monthly basis.

As indicated in figure 2 below;

Figure 2: Number of times respondents check their blood pressure apart from reviews.

4.2.4. Prevention of hypertension by respondents.

Respondents were asked to share their opinions on ways hypertension can be prevented. .40% (20) of the respondents stated that reduction in the intake of salt can prevent hypertension.30% (15) indicated less stress (reduced overthinking) .16% (8) stated that having enough sleep (sleeping early) .14% (7) also stated less intake of fatty foods. As indicated in table 4 below.

Table 4: Prevention of hypertension

Prevention of hypertension	Frequency (n)	Percentage (%)
Reduced intake of too much salt	20	40
Less stress /reduced overthinking	15	30
Having enough sleep / sleeping early	8	16
Less intake of fatty foods	7	14
Total	50	100

CAUSES AND PREDISPOSING FACTORS ON HYPERTENSION.

4.3. In answering research questions on the causes and predisposing factors in newly diagnosed hypertensive patients the following were the outcomes.

This section of the study seeks to find out from the respondents how they understand hypertension. 50% (25) indicated when the veins are blocked and blood cannot flow well.20% (10) stated when your blood pressure is high.16% (8) when heart pumps blood excessively.10% (5) stated hypertension is when the heart beat faster.4% (2) indicated hypertension is a heart disease. As indicated in table 5 below;

Table 5; Respondents opinions on definition on hypertension

Definition of hypertension	Frequency (n)	Percentage (%)
When the veins are blocked and cannot flow well	25	50
When your blood pressure is high	10	20
When heart pumps blood excessively	8	16
When the heart beats faster	5	10
Hypertension is a heart disease	2	4

4.3.2 In trying to know the opinion of respondents about what they think can cause hypertension in an individual. Respondents were asked their opinions on what can cause an individual to have hypertension.40% (20) of the respondents indicated that too much intake of salt (too much intake of spicy foods), 30% (15) also stated too much stress (overthinking). 16% (8) of the respondents indicated that late sleeping (unable to have adequate sleep at night). 10%

(5) also indicated too much fat intake. 4% (2) stated taking in too much sexual enhancement drugs.

As indicated in table 6 below;

Table 6: showing opinions of respondents on causes of hypertension in an individual

Causes of hypertension	**Frequency (n)**	**Percentage (%)**
Too much stress/ Overthinking	15	30
Late sleeping/ Unable to have adequate sleep at night	8	16
More salt intake/ When you take in too much spicy food	20	40
Too much fat intake	5	10
Taking in too much sexual enhancement drugs.	2	4
Total	50	100

4.3.2. Behaviors respondents think can predisposed a person to hypertension

The respondents shared their opinions on the predisposing behaviors where multiple selection were allowed. 98% (49) agreed to intake of salty food. 94% (47) indicated fatty foods. Late eating was chosen by 84% (42). 82% (41) selected drinking irresponsibly. 72% (36) also chose less or no exercise. 64% (32) chose less sleep and rest...38% (19) chose obesity and 14% (7) indicated others(smoking) As represented in the table 7 below;

Table 7: Showing responses of respondents on predisposing behavior of hypertension.

Predisposing behaviors	**Number of respondents**	**Percentage of respondents**
Less rest and sleep	32	64%
Less or no exercise	36	72%
Eating late at night	42	84%
Drinking irresponsibly	41	82%
Salty food	49	98%
Fatty foods	47	94%
Obesity	19	38%
Others(smoking)	7	14%

PATIENTS UNDERSTANDING OF PHARMACOLOGICAL MANAGEMENT OF HYPERTENSION.

4.4. In assessing the respondents understanding on the pharmacological management on hypertension. All the respondents could not mention their drugs but had sample to show.

4.4.1Frequency of how often respondents take their drugs.

Respondent were asked to state the number of times they usually take their medications. This was presented in a chart to make explanation and understanding easier. 56% take their antihypertensive once daily. 36%, indicated their drugs are taken twice a day. 8% of the respondents also stated they only take their drug when they realize the blood pressure in increasing. As indicated in figure 3 below;

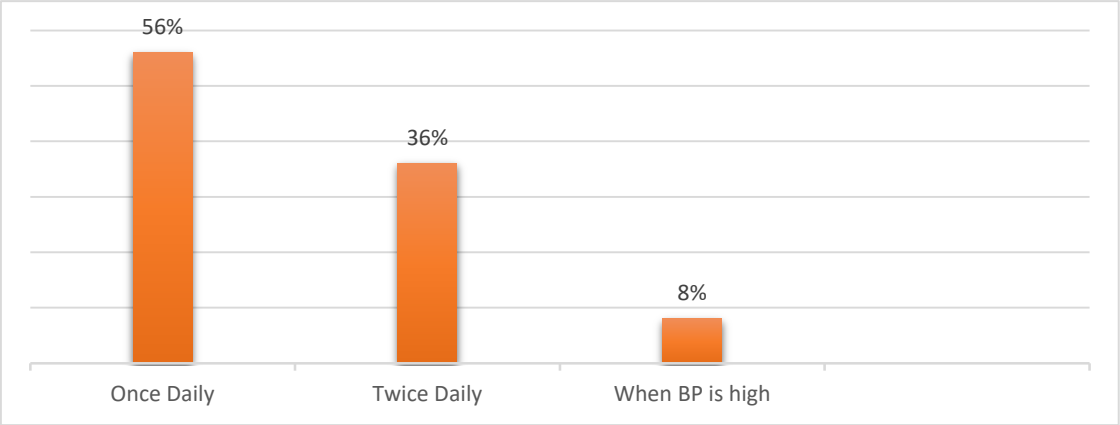


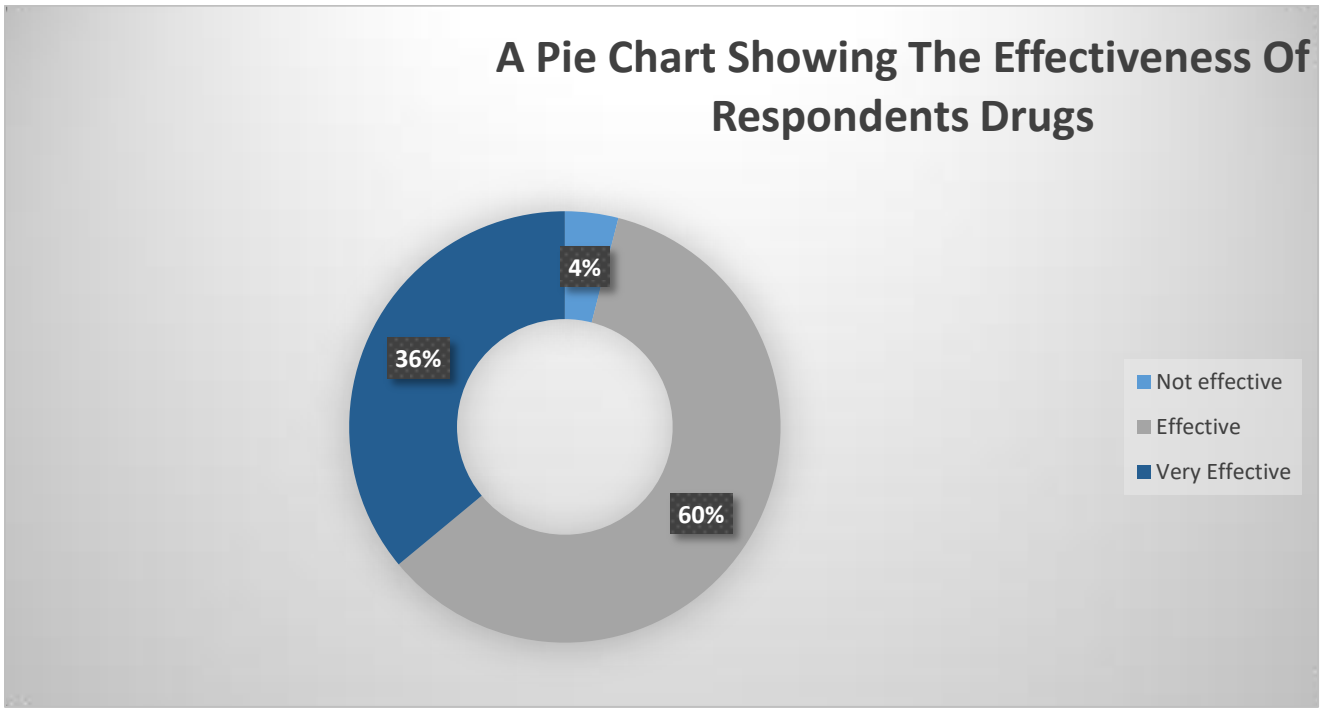
Figure 3: Showing the how often respondents take their drugs.

4.4.2. Effectiveness of hypertensive drugs.

Respondents were asked to rate the effectiveness of their medication in lowering or keeping their blood pressure under control. Respondents were asked to indicate the effectiveness of their hypertensive drugs. 60% stated their drugs are effective. 36% stated their drugs are very effective. 4% of the respondents stated their drugs has not been effective

As indicated on the figure4 below;

Figure 4: A chart showing how effective respondent's drugs are.



4.4.3. Side effect of drugs taken by respondents.

The respondents were asked to state some of the side effects experienced. The following are some of the side effects stated by the respondents.50% (25) stated that they experienced headache .22% (11) respondents stated that they felt weak. 20% (10) of the respondents felt unwell .8% (4) of the respondents were not able to sleep at night well. As indicated in the table 9 below.

Table 9; Showing respondents of side effects of antihypertensive drugs

Side effects	Frequency (n)	Percentage (%)
Headache	25	50
Feeling of weak	11	22
General feeling of unwell	10	20
Not able to sleep adequately	4	8
Total	50	100

4.4.4. Challenges faced with intake of medication.

Respondents were engaged to find out some of the challenges they face in relation to the intake of their medication.92% (46) stated they do not have any challenge. 8% (4) of the respondents indicated some challenges they face when it comes to taking of their drugs. The few listed challenges are as follows;

I. Forget to take the drug.
II. Feels is a burden and intentionally skipped dosages
III. Unable to tolerate the side effects of some the drugs.
IV. The time interval in taking the drug.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS, RECOMMENDATIONS

Introduction

In this chapter, the data analyzed in chapter four were interpreted based on scientific evidence. The findings are briefly discussed with references to support the study.

Discussions

5.1.1 KNOWLEDGE NEWLY DIAGNOSED HYPERTENSIVE PATIENTS HAVE ON HYPERTENSION.

This section of the study seeks to find out from the respondents how they understand hypertension. The respondents knowledge were assessed on hypertension, it came out clearly that they have fair knowledge on their condition (hypertension) as they were able to give fair information regarding causes (too much stress /overthinking ,more salt intake or spicy foods),they will report to the facility within month or two(68%) they have adequate signs and symptoms like migraine ,palpitations just to mention a few though reasonable number did not show no sign or symptom this might be as a result of being new clients or the disease in question (hypertension). All of the respondents agree not to stop taking the hypertensive drugs unless otherwise and their willing to check their blood pressure on daily basis or once a week (62%). They were able to indicate preventive measures such as reduced intake of salt, avoidance of stress (70%). They might have received education from their health care providers as well as peers or other media. In reference with (Sainju , Shah, Geethanjali, and Sankaran,2015) reported that factors including excessive alcohol intake, cigarette smoking and bad eating habit such as excessive salt and fat intake ,late night eating among others.

Also studies shows that there were high incidence among hypertensive patients on hypertension while others recorded low incidence of knowledge of risk factors among hypertensive and non-hypertensive patients (Sowemimo , Ajayi, Akpa,& Ossai,2019)

5.1.2 RESPONDENTS VIEW ON THE CAUSES OF HYPERTENSION

The major research question on causes were also assessed. The respondents intake of salt and too much stress (overthinking) (70%).Behavioral assessment in relation to the causes where they were able to indicate the following as not enough rest , lack of exercise , late eating, alcohol intake, salty and fatty foods among others. This is as a result of them being female. It is believed that females adhere to health education better.

Similarly, Sainju et al. (2020) reported that, being stress out and not having enough and quality sleep and rest is a major health issue causing hypertension (71.9%).

In the same way, Agyei-Baffour et al. (2019) in their research about hypertension and its causes found out that, unhealthy diet such as excess salt intake (68.3%) could cause hypertension.

5.1.3 Respondents understanding on pharmacological management of hypertension,

From the research, it came clearly that they adhere to the drug as prescribed by their doctors once daily or twice daily pertaining to newly diagnosed hypertensive patients. At the same time the effectiveness of the drug were very effective hovering around 96%. Some side effects were well known among respondents (headache, feeling weak, general feeling of unwell) (92%). Notwithstanding, there were some challenges ranging from forgetfulness which affects the interval of drug taking leading to skips of dosage and finally some are not able to tolerate some side effects of the drug

In the same way, WHO (2022) indicated in a research contact in Port-au-Prince, Haiti on the common side effects experienced by hypertensive patients as they take their drug. 100 clients were sampled for the study and it was found out that, 88% usually experience headache, 75% felt weak, 65% also indicated feeling unwell anytime they take in the drug and 22% indicated insomnia as the side effects experienced.

Conclusions

The study concluded that respondents have fair knowledge on hypertension. The overall stated causes of hypertension, drugs as well as side effects stated by respondents were in line with the ones stated in the literature.

5.1 Recommendations

Based on the findings of the study, the following recommendations are made.

1. Their method of managing hypertensive patient is recommendable in worth in relating it to other facilities.
2. They should stress more of drug regimen
3. Further research should be done using clients less than 6 months as to know how newly diagnosed hypertensive patient can be managed properly.

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APPENDICES

QUESTIONNAIRE

THE UNDERSTANDING OF NEWLY DIAGNOSED PATIENTS WITH HYPERTENSION (FROM 2YEARS AND BELOW) AT HOLY FAMILY HOSPITAL, BEREKUM.

This study is purely for academic purpose. Confidentiality and anonymity of both respondents and information volunteered are assured.

Please indicate your answer with a tick (√) and write where spaces have been provided

PART ONE: DEMOGRAPHIC DATA

1. Gender: (a) Male [ ] (b) Female [ ]

2. Indicate your age at your last birthday

---

3. Marital status: (a) Married [ ] (b) Single [ ] (c) Divorced [ ]

4. Religious background: (a) Christian [ ] (b) Islam [ ] (C) Others [ ]

5. How many months since you were diagnosed as hypertensive patient?

……

PART TWO: GENERAL KNOWLEDGE NEWLY DIAGNOSED HYPERTENSIVE PATIENTS HAVE ON HYPERTENSION.

6. In your opinion what cause(s) hypertension?

---

7. How often do you report to the clinic?
   a) Monthly [ ]
   b) 2 months [ ]
   c) 3 months [ ]
   d) When necessary [ ]
8. Have you been able to recognize any sign or symptom that indicate increase in your blood pressure?

---

9. What will make you stop taking your hypertensive drug?

   ---

10. How often do you check blood pressure apart from review?

---

11. How do you prevent hypertension?

PART THREE: CAUSES AND PREDISPOSING FACTORS ON HYPERTENSION.

11. In your own words; what is hypertension?

   ---

12. In your own opinion, what do you think can cause an individual to have hypertension?

---

13. Which of the following behaviors predisposed a person to hypertension? **Please tick (*you can choose as many as you want*)**

a. Drinking alcohol irresponsibly [ ]
b. Eating salty food always [ ]
c. Eating fatty foods [ ]
d. Eating late in the night [ ]
e. Less or no healthy excises [ ]
f. Less rest and sleep. [ ]
g. Obesity [ ]

Others ----------

PART FOUR: PATIENTS UNDERSTANDING OF PHARMACOLOGICAL MANAGEMENT OF HYPERTENSION.

14. Mention your antihypertensive drug?

    ----

15. How often do you take the drug?

    ……

16. How will rate the effectiveness of hypertensive drugs given in lowering your blood pressure?
    a. Not effective [ ]
    b. Effective [ ]
    c. Very effective. [ ]
17. Mention any side effects of the drug

    ----

18. What are some of the challenges you face in relation to the drug?

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Our Ref HFNMTC/GC/011/062024

Your Ref. .....

Date June 26, 2024

The Nursing Administrator
Holy Family Hospital
P.O. Box 21
Berekum

Dear Nursing Administrator

PERMISSION TO CONDUCT RESEARCH

I wish to introduce to you the under listed names of final-year students of the College.

1. Debrah Esther
2. Takyiakwaa Rose
3. Tetteh Benedicta

As part of the pre-requisite for the award of Diploma in Midwifery they are to conduct a research study on the topic **"The understanding of newly diagnosed patient with hypertension (from 2years and below) at Holy Family Hospital, Berekum."**

I would be grateful if you could assist them with any material or help they may need to accomplish their study.

Thank you.

Yours faithfully

ACADEMIC CO-ORD. MIDWIFERY
HOLY FAMILY NURSING AND
MIDWIFERY TRAINING COLLEGE
BEREKUM

Martha Kyeremaa
Supervisor.
For: Principal