FACTORS AFFECTING ADHERENCE TO TREATMENT AMONG HYPERTENSIVE PATIENTS ADMITTED IN MEDICAL WARD AT ST. FRANCIS HOSPITAL MUTOLERE, KISORO DISTRICT.

RESEARCH REPORT SUBMITTED TO UGANDA NURSES AND MIDWIVES EXAMINATION BOARD

IN PARTIAL FULFILMENT OF REQUIREMENTS FOR THE AWARD OF A DIPLOMA IN NURSING

BY

DUSABE CHAP.

REG NO: JAN 22/ U024/DNE/001

MAY, 2023

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ABSTRACT.

Hypertension cases continue to increase with majority suffering from its complications leading to increased morbidity and mortality associated with poor patients' adherence to prescribed medications. The purpose of the study was to identify the factors affecting adherence to treatment among hypertensive patients admitted in Medical ward within St. Francis hospital Mutolere Kisoro district.

The study involved a descriptive cross-sectional design using purposive sampling technique on a sample of 40 respondents. Data was collected using a pre-tested self-administered questionnaire and the collected data was manually analyzed using computer and then presented in form of percentages and frequencies in tables and figures.

Findings from the study indicated poor medication adherence at 35%, though nearly all (98%) of the hypertensive patients were aware of having high blood pressure on admission which indicated adequate knowledge on their condition.

Poor medication adherence was to mainly forgetfulness (96.2%), lack of money to buy drugs (88.5%), fear of side effects from drugs (65.4%), use of herbal agents (57.7%) and absence of co-supporters (15.4%). Additionally, the health care system related factors identified were; pill burden (83%), absence of treatment supporter(s) (77.5%), high drug prices (72.5%), lack of drugs at the facility (40.5%), lack of support by health workers (18.9%), poor physician-patient relationship (16.2%) and multiple drug regimen (13.5%).

The study concluded that poor medication adherence was significantly related to forgetfulness, lack of money to buy drugs, fear of side effects from drugs and use of herbal agents.

Other health care system related factors were pill burden, lack of treatment supporters, high drug prices and drug stock outs at the health facility.

Therefore, there is need for the government to invest in chronic care especially reducing prices or providing free medications to patients who are on long term treatment as in hypertension. More so, the hospital should enact practical strategies like sensitization of the population through media and use of locally available methods like radios and conducting community outreaches to create awareness on various control measures of high blood pressure, promotion of education campaigns on the outcomes related to good or poor drug adherence to antihypertensive medications.

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DECLARATION.

I **DUSABE CHAP** solemnly declare that this research report titled "**Factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St. Francis Hospital Mutolere, Kisoro District"** is entirely my original work and has never been submitted to Mutolere School of Nursing and Midwifery for any academic award.

Sign……

Date……

DEDICATION

I dedicate this dissertation to my mother **MRS. NYIRANTEZURUNDI ROBINAH**, my grandmother **MRS. NYIRAHABINKA DOROKASI** and my sister **CYIMPAYE DIANAH** who in conjunction with the almighty God contributed both financially and spiritually and have been there for me in as far as academic maintenance is concerned for the betterment of my future.

ACKNOWLEDGEMENT PAGE

The successful completion of this dissertation has been by the almighty God who has enabled me to pass through my challenges.

Great thanks go to my parents, my sister especially **DIANAH** for the loving heart, support and guidance. I also extend my sincere thanks to my great friends especially **ALOYSIUS, ISAAC, ROBERT AND RONALD** who also contributed in terms of guidance and lending me their computers up to the accomplishment of my dissertation.

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Furthermore, sincere thanks go to the principal tutor **SR. KEMIGISHA CATHELINE** for rendering me a conducive environment towards the successful accomplishment of this dissertation.

MAY GOD GRANT YOU HEALTH FOR EVER AND EVER, Amen.

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OPERATIONAL TERMS

Adherence: Is the ability and willingness to abide by a prescribed therapeutic regimen.

Blood pressure: Is the force applied by blood on the walls of an artery

Compliance: The consistency and accuracy with which a patient follows the regimen prescribed by a physician or other health professional.

Hypertension: Is an average systolic blood pressure of 140 mm Hg or greater and diastolic blood pressure of 90 mm Hg or greater.

LIST OF ACRONYMS

K.I.U Kampala International University.

MmHg: Millimeters of mercury.

MOH: Ministry of Health.

NCDs: Non Communicable disease

PNFP: Private-Not-For-Profit.

UCMB: Uganda catholic medical Bureau.

WHO: World Health Organization.

CHAPTER ONE: INTRODUCTION.

1.0 Introduction

This chapter describes the factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St. Francis Hospital Mutolere Kisoro District, and in line to the study, gives background of the study, problem statement and purpose of the study, specific objectives, research questions and justification of the study.

1.1 Background of the study.

According to WHO (2019), Hypertension is diagnosed if, when it is measured on two different days, the systolic blood pressure readings on both days is ≥140 mmHg and/or the diastolic blood pressure readings on both days is ≥90 mmHg.

Hypertension is a silent killer disease because it often causes symptoms (Morrissey, et al., 2017). Globally, hypertension is the third leading cause of disability with an estimated 1.13 billion people having hypertension with the majority (two-thirds) living in low- and middle-income countries (WHO, 2019).

Although anti-hypertensive medications are valuable in reducing high blood pressure and preventing cardiovascular complications, the reported rates of blood pressure control are very disappointing due to non-adherence to medication and therefore remain the major challenge for proper control of high blood pressure (Randah, Farida & Sahar, 2019). Adherence to anti-hypertensive medication leads to adequate control of blood pressure among hypertensive patients (Li, et al., 2016). Furthermore, a study done by Semplicini and others on hypertensive patients with stroke and coronary artery disease found out that adherence to anti-hypertensive drugs reduces the risk of developing stroke by more than one third, and coronary heart disease by 19% to 28% (Semplicini, Benetton, Lorenzo, Realdi & Mascagna, 2017).

In China, the prevalence of hypertension is 32.5% (Zhang, et al., 2018), and about one-third of Chinese adults need anti-hypertensive treatment, but only 46.4% of them are being treated with anti-hypertensive medications (Lewington, Lacey & Clarke, 2016). However, non-adherence to anti-hypertensive medication rate ranged from 40.3% to 78.7% which creates danger to them in battling complications related to un-controlled high blood pressures (Al-Ramahi, 2015); (Morrison, Holmes & Parveen, 2015); (Zhai, 2015); (Ma, 2016).

Across South Asia, low adherence among hypertensive patients on medication stands high at 80% (Jafar, et al., 2018). The Basic Health Research Report organized by the Ministry of Health of Indonesia revealed that the prevalence of hypertension in Indonesia is 34.1% as compared to 2013, which was 25.8% with 4% having controlled hypertension due to awareness and adhering to medication (Kemenkes, 2018), whereas in a clinical study conducted in West Bengal, India on a sample of 186 geriatric patients, only 44.6% were reported to adhere to anti-hypertensive medication (Sahoo, Preeti & Biswas, 2018).

In Sub-Saharan Africa, It was found out that blood pressure control among hypertensive patients is generally poor and is related to the complex interplay of patient, provider, and socio-economic factors in the region (Boima, et al., 2015). According to a study carried out by Adidja (2014) in Burea district Cameroon, only 33.3% of hypertensive patients complied to anti-hypertensive drug therapy whereas in Ethiopia, a study conducted by Hasen & Abdo (2020) on medication adherence and associated factors in management of hypertension in Shashemene Referral Hospital, found out that adherence to anti-hypertensive treatment among hypertensive patients was also low at 36.5%. Poor anti-hypertensive medication adherence creates high mortalities from ischemic heart disease, cerebral hemorrhage, and cerebral infarction and it’s expected that

cardiovascular conditions in sub-Saharan Africa are expected to double by year 2030 (Feven, et al., 2015); (Soyeun, et al., 2016).

In East Africa, adherence to anti-hypertensive treatment varies from country to country. In Tanzania, drug adherence to anti-hypertensive medication is at 53.3% (Kaddumukasa, et al., 2016). A study conducted on Patient, clinician and logistic barriers to blood pressure control among adult hypertensive patients in rural hospitals Muhanga province Rwanda by Sibomana and colleagues revealed that overall adherence to anti-hypertensive medication is high (76.8%) (Sibomana, NamaraMc & Walker, 2019). In Kenya, according to Kenya National Strategy for the Prevention and Control of NCDs 2015-2020, the prevalence of hypertension is 23.7% with 5.7 million people diagnosed with hypertension. However, only 0.2 (3%) people have it controlled by adherence to medication. In Uganda, a study conducted on compliance to medication among hypertensive patients at Kampala International University (K.I.U) teaching hospital southwestern region found out that non-adherence to anti-hypertensive medication is at 37.8% (Namubiru, 2016). The main reasons for missing medication being running out of drugs (38%), forgetfulness (31%), lack of funds to buy drugs (31%), drug side effects (10.8%), feeling better (5.4%).

There’s no data documenting the factors affecting adherence to treatment among hypertensive patients at St. Francis hospital Mutolere Kisoro District, hence the study.

1.2 Problem statement

In Uganda, adherence to anti-hypertensive medication among hypertensive patients remains low at 17% (Mugwano, et al., 2016).This manifests as poor controlled blood pressure which has resulted into related complications such as stroke, heart failure and kidney damage increasing morbidity and mortality rates among hypertensive patients. This creates uncertainty whether Uganda will achieve relative reduction target of 19.4% by 2025 on the prevalence of raised blood pressure (Global Health Observatory Data, 2020).

At St. Francis Hospital Mutolere, there is increased morbidity and mortality rates related to hypertension as out of 269 hypertensive patients admitted in medical ward, 25 died following complications related to hypertension like stroke, kidney diseases and congestive cardiac failure attributed to un controlled blood pressure which could be secondary to poor drug adherence (Medical Department records, 2021/2022).

Despite the hospital management action plans of continuous monitoring of blood pressure, health education on dangers of non-drug adherence, continued follow ups by giving return dates for review, World Health Organization(WHO) recommendation on use of fixed dose of ant-hypertensive medication which reduces pill burden and provision of free drugs especially in government hospitals, there is still increased morbidity and mortality among hypertensive patients thus prompted the researcher to carry out a study on factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St. Francis Hospital Mutolere, Kisoro District.

1.3 Purpose of the study.

To determine the factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St. Francis Hospital Mutolere, Kisoro district.

1.4 Specific objectives.

1. To establish patient related factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St. Francis Hospital Mutolere, Kisoro district.
2. To find out health care system related factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St. Francis Hospital Mutolere, Kisoro district.

1.5 Research questions.

1. What are the patients related factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St. Francis Hospital Mutolere, Kisoro district?
2. What are the health care system related factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St. Francis Hospital Mutolere, Kisoro district?

1.6 Justification of the study.

Non-adherence to therapeutic modalities used in the control of hypertension among hypertensive patients is a major reason for poorly controlled blood pressure and has led to increased morbidities, complications and mortalities especially in developing countries with Uganda un-exceptional.

Understanding the factors that affect adherence to hypertensive treatment will aid policy makers especially Ministry of Health Uganda in formulating interventions to increase patient adherence which will in turn help in reducing health financial burdens, thus improving their quality of life. In low resourced health settings including the study area where there is increased morbidity and mortality following complications of hypertension like stroke, kidney diseases and congestive cardiac failure which could be attributed to un controlled blood pressure secondary to poor drug adherence, study findings will provide a better understanding of the human adherence behaviors where majority are receiving care from, and will help St. Francis Hospital Mutolere design appropriate models of care to address this challenge.

To the researcher, it is an academic requirement for the partial fulfillment for the award of a diploma in Nursing.

CHAPTER TWO: LITERATURE REVIEW.

2.0 Introduction.

This chapter presents literature from acknowledged studies obtained from textbooks nursing medical journals and research reports. This was organized in relation to the specific objectives of the study that includes; patient related factors and health care system factors affecting adherence to treatment among hypertensive patients.

2.1 Patient-related factors affecting adherence to treatment among hypertensive patients.

A study done by Hussein and others in Egypt showed that treatment adherence was high (59.6%) among literate category of patients (Hussein, Mohammad & Hossam, 2020). In another study conducted by Bader on predictors of adherence to anti-hypertensive medication in northern Arab Emirates found out that 65.3% patients who had good adherence to hypertensive remedy had formal education (Bader, Koprulu, & Hassan, 2015).

Study findings from a study conducted by Pratiwi & Perwitasari (2017) among patients on anti-hypertensive therapy in Indonesia found out that 96.8% did not comply with hypertension treatment due to lack of knowledge about the disease condition. It was explained that the better the patients' knowledge on hypertension, the better the awareness to seek treatment at health services, hence good adherence. A study conducted by Mangendai and others also revealed that patients with sufficient knowledge about hypertension had good adherence to treatment while those with less knowledge had low adherence to medication (Mangendai, et al., 2017).

According to a study conducted by Ahmad (2015) in North India revealed that medication adherence can also be influenced by personal habits for example alcohol consumption, tobacco

taking. Also a Population Based Study done in rural Bangladesh by Khanam and others identified smoking, alcoholism as among the factors that hinder compliance to anti-hypertensive medication among hypertensive patients (Khanam, et al., 2014). Additionally, Individuals with sedentary lifestyle and smoking were less adherent to anti-hypertensive medication than those with regular physical activity and non-smokers, and these are related to individuals' inadequate knowledge about risk factors to cardio-vascular diseases, their effects on adherence to medication (Kamran, Sadeghieh, Biria, Malepour & Heydari, 2014).

Study findings from a study done on factors associated with treatment compliance in hypertension Southwest Nigeria indicated that individuals' perceived beliefs about hypertension being curable by using orthodox and traditional medicines hinder drug adherence among patients initiated to treatment (Osamor & Owumi, 2016). Similarly, in a study done by Setyo and others in Indonesia indicated that patients Opted for herbal and/or traditional remedies as substitutes to anti-hypertensive drugs (Setyo, et al., 2014). In Tanzania, a study conducted by Liwa, Roediger & Jaka (2017) on herbal and alternative medicine use in Tanzanian adults admitted with hypertension found out that 91.6% of them used Apocynum venetum as tea or as a preparation to replace anti-hypertensive drugs yet medically not included in the list of recommended agents to use in control of hypertension. Therefore, taking traditional medications contributed to poor adherence among patients on anti-hypertensive therapy.

In Nigeria, study results done by Aghoja and others on medication adherence and its correlates among hypertensive patients found out that 56.4% forgot to take the medications which was attributed to busy schedule (Aghoja, Adje, Arute, Aknonghrere, & Ekwuabu, 2013). Studies conducted by Abdulazeez, Omole, & Ojulari, (2014); Gelaw, Mohammed, Tegegne, Defersha & Fromsa, (2014) in Nigeria noted forgetfulness to be the most common reason for non-compliance

to anti-hypertensive remedy among patients and therefore health workers should adopt systems and method for making them remember to take their medicines by prescribing written instructions as written instructions are better than oral advice for reminding patients to take medications. Additionally, a study conducted by Gebreyohannes and colleagues in Ethiopia revealed that nearly one third of the patients had poor adherence due to forgetfulness (20.1%) (Gebreyohannes, et al., 2017)

A research study conducted by Sukma and others in Indonesia on hypertensive patients on medication revealed that patients with good family support had 66.7% good adherence to anti-hypertensive drugs while those with low family support had 33.3% drug adherence, indicating that family support is greatly associated with patient treatment adherence (Sukma, Widjanarko & Riyanti, 2018). Another related literature from a study by Soesanto and others in Indonesia also showed that adherence to hypertension medication is directly correlated with the existence of social support from family members or friends who help to remind them to be obedient in taking the drugs (Soesanto, Ramadlan, Setyawati, Aisah & Pawestri, 2021).

According to a study done by Gebreyohannes and others in Ethiopia, majority (80%) had poor adherence to anti-hypertensive medication due to fear of side effects (Gebreyohannes, et al., 2017). These side effects reported were excessive sweating (81.5%), tiredness (65.6%), dizziness (49.5%), palpitations (43%) among others arising from the medications. Another study conducted by Tedla & Bautista (2016) in Oxford, America found out that 34.5% were non-adherent due to side effects experienced like excessive urination and decrease in sexual drive.

From a study done on factors influencing medication adherence among patients with hypertension in Ekiti Nigeria, it was revealed that lack of funds for the costs of anti-hypertensive medications contributed to non-adherence in 39% of patients (Ramni, 2017). Also a study

conducted in Southwestern Uganda at KIU teaching hospital, adherence to anti-hypertensive medication was low (31%) due to lack of funds to buy drugs (Namubiru, 2016). Furthermore, a study done by Maginga and colleagues in Tanzania showed that 37.8% had poor adherence because of shortage of money to buy anti-hypertensive drugs (Maginga, Guerrero, Koh & Hansen, 2016).

2.2 Health care system related factors affecting adherence to treatment among hypertensive patients.

A study conducted by Raimi (2017) in Nigeria revealed that non-availability of medication at the pharmacy was responsible for non-compliance in 15% of the participants. Previous study report from the same country revealed that inadequate drugs were responsible for poor adherence to anti-hypertensive medication in 10% of patients (Fadare, Olamoyegun, & Gbadegesin, 2015). Additionally, a study done by Sibomana, McNamara & Walker (2019) in Rwanda among adult hypertensive patients on anti-hypertensive medication indicate that lack of medication supply contributed to 77% non-adherence. Also a report released by MOH of Indonesia stated inadequate drugs at the health facilities (2%) as among the reasons for not adhering to anti-hypertensive medication among hypertensive patients (Minister of Health of The Republic Indonesia, 2019).

According to a study conducted in Nigeria, a good number of patients have problems of financing their refills and this contributes to their non-adherence (Aghoja, Adje, Arute, Aknonghrere, & Ekwuabu, 2013). Also a study report done by Kamath & Satish in India revealed that the cost ration for antihypertensive medications is high above 100% and this creates a burden on patients on refills. Therefore, increasing adherence to the treatment can be ensured

by decreasing the cost of therapy and letting physicians switch to cost-effective therapy hence decreasing price burden on patients (Harika, Subha, John, Princely, & Dhanaraju, 2019).

A study conducted by Soesanto and others in Indonesia on the factors affecting medication adherence in patients with hypertension showed that 66.1% of them adhered to hypertension treatment due to the role played by health workers through providing information that is easily understood about their illness, support to help them recover and good interpersonal communication (Soesanto, Ramadlan, Setyawati, Aisah & Pawestri, 2021). Also, a study done by Leslie (2019) in Ghana found out that adherence to anti-hypertensive medication was high (80%) of participants due to the advice and constant reminders got from health workers.

Study findings done by Abdisa and others on factors associated with poor medication adherence during COVID-19 pandemic among hypertensive patients in Ethiopia found out that 12.9% had poor adherence due to poor physician- patient relationship (Abdisa, et al., 2022). Also a study conducted by Mahmoudian and colleagues in Iran found out that patients' adherence to anti-hypertensive medication is associated with doctor-patient relationship in that communicating with the physicians is a key factor in predicting patients' treatment process and outcomes, and influence disease control and treatment as more satisfied patients are more prone to follow the physicians' instructions (Mahmoudian, et al., 2017).

Study results by Randah, Farida, & Sahar (2015) in Egypt indicated that adherence to hypertensive medication was low (48.3%) for treatment regimen more than three drugs. Also studies conducted in India on Determinants of patient's adherence to hypertension medications reported that compliance is effective in mono-therapy or poly-therapy but in one tablet for better adherence among patients and therefore, doctors have to prescribe a lesser number of anti-

hypertensive medications as possible to promote effective adherence (Venkatachalam, Abrahm, Singh, Stalin & Sathya, 2015), (Jankowska, Chudiak, Uchmanowicz, Dudek, & Mazur, 2017)

CHAPTER THREE: METHODOLOGY.

3.1 Introduction.

This chapter gives a description of methods that were used by the researcher to collect data and the means through which the entire study achieved the study objectives. The chapter covered research design and rationale, study setting and rationale, study population, sample size determination, sampling procedure, research instrument/tool, data collection procedure, data management, data analysis, ethical considerations, study limitations and dissemination of results.

3.2 Study design and rationale.

The researcher used a descriptive cross-sectional study design employing both qualitative and quantitative methods of data collection. This particular design was used because data was collected without changing the meaning (nothing was manipulated) and also was affordable and simple for the researcher while getting the necessary information.

Qualitatively, respondents were given chance to express their views and concerns and quantitatively, numerical data would be collected.

3.3 Study setting and rationale.

The study was conducted in medical ward within St. Francis Hospital Mutolere, Kisoro district. The hospital is a private not for profit (PNFP) hospital located in south western Uganda 4km from Kisoro town and about 500km from Kampala the capital city of Uganda. It is bordered by the republic of Rwanda in the south, Democratic Republic of Congo in the west, Rubanda district in the east, and Kanungu district in the north. It serves people from within the district, people from neighboring districts of Kabale, Rubanda, Kanungu and those from neighboring countries

of Rwanda and Democratic Republic of Congo (DRC). The hospital offers various services within its departments of surgery, pediatrics, radiology, laboratory, medical, pharmacy, palliative care, obstetrics and gynecology. The hospital receives averagely 50 hypertensive patients monthly admitted in medical ward. The hospital was selected because it acts as a district referral center for most of the conditions including hypertension among others. Furthermore, has a well functional CT scan used to diagnose complications related to hypertension including cerebral hemorrhage, embolism and infarction.

Rufumbira is the common language spoken; however other languages spoken included Rukiga and Runyankore. Growing of crops and rearing of animals only for home consumption was the dominant activity, and remained major source of income for financial health costs to majority of the individuals.

3.4 Study population.

The study population comprised of adult hypertensive patients aged between 18 to 80 years on anti-hypertensive medication admitted in medical ward at St. Francis hospital Mutolere Kisoro district.

3.4.1 Sample size determination.

The study comprised of 40 hypertensive patients aged between 18 to 80 years on anti-hypertensive medication admitted in medical ward at St. Francis hospital Mutolere Kisoro district. The sample size was used because it was enough to give a general picture of the study variables for generalization of study findings.

3.4.2 Sampling procedure.

A purposive sampling method was employed to recruit adult hypertensive patients on anti-hypertensive medication to participate in the study. To be quick and time saving, the researcher was guided by the patients' charts and daily medical register book to purposively select the study participants where the researcher himself visited medical ward daily and cross checked through patients' charts and whoever was found diagnosed with hypertension, in stable condition was explained about the purpose of the study and informed consent obtained in order to participate in the study. This was done repeatedly until the required sample size was obtained. This sampling method was used because it was quick and time saving for the researcher.

3.4.3 Inclusion criteria.

The study involved only hypertensive patients admitted in medical ward who were in stable condition and had completed more than 6 months on anti-hypertensive drugs as long as they consented to participate in the study.

3.5. Definition of variables.

3.5.1 Dependent variable;

The dependent variable in this study was adherence to anti-hypertensive treatment which refers to the extent to which a patients' anti-hypertensive drug intake behavior corresponds with the recommendations of the prescriber. This was measured by checking blood pressure on admission by reviewing patients' charts. Furthermore, specific questions on whether the patient was taking the medications as advised by the health workers were asked.

3.5.2 Independent variables;

Independent variables included; Factors affecting which refers to the conditions that promote and limit the patient from taking the prescribed treatment as required depending on the agreed recommendations from a health care provider like patient related factors such as life style, beliefs and practices, level of knowledge on hypertension and healthcare system factors like drug stock out, role played by health workers among others.

3.6. Research instrument.

The researcher used a pre-tested, self-administered questionnaire with both open and closed ended questions generated basing on the set objectives of the study to collect data from the patients aged 18 to 80 years on anti-hypertensive medication. For illiterate participants, the researcher translated the set questions to patients in their local language to ensure clarity so as to express their views.

3.7 Data collection procedure.

Following successful recruitment of the respondents, self-administered pretested questionnaire copies were distributed to literate hypertensive patients for filling. The researcher explained the questionnaires to illiterate respondents in their local understandable language as well as ticking and filling their answers since they could not read and write. On completion, the completed questionnaire copies were collected and cross-checked if all questions were answered very well. This was done every day targeting a minimum of 3 hypertensive patients daily and checking their charts to establish their blood pressure until the required sample size was obtained.

3.7.1 Data management.

The questionnaire was first pretested on 5 hypertensive patients receiving anti-hypertensive medication who were later not involved in the study. Questions were edited and unclear questions were also addressed so that only relevant data is collected. On commencement of real data collection, filled questionnaires were collected, checked thoroughly for completeness, accuracy and were put in a file that was only accessed by the researcher to ensure confidentiality and privacy of the respondents. Then the researcher proceeded with arranging them for data coding for easy entry into the computer for analysis.

3.7.2 Data analysis.

Quantitative data was coded and analyzed using computer Microsoft Excel, then expressed as frequencies, percentages and presented using frequency tables and figures for easy interpretation.

Qualitative data was categorized according to themes to enable the researcher establish the number of respondents sharing the same view or opinion. Analysis of qualitative data was done manually, then coded and entered into computer spread sheet for analysis.

3.8 Ethical considerations.

After approval of research proposal by the Research Committee of the institution, an introductory letter was obtained from the principal tutor Mutolere School of Nursing and Midwifery. This was presented to the medical director St. Francis hospital Mutolere seeking permission to carry out the study in the hospital. The objectives of the study were then explained to the study participants, an informed consent was obtained from them aiming at voluntary participation and the right to pull out from the study at any given time without being penalized

was guaranteed. Participants' confidentiality was maintained by not using their names anywhere on the questionnaire copies given to them.

3.9 Limitations of the study.

The researcher faced a problem of language barrier which was solved by interpreting the questionnaire to the respondents into simple and understandable local language during data collection.

The researcher could get some questions unanswered and with biased information which was solved by explaining to the respondents that it was meant to assess the factors affecting adherence to treatment among hypertensive patients which was solely for academic purpose and strategies would be suggested to the hospital management to improve on adherence and general quality of care given to patients with hypertension.

3.10. Dissemination of findings.

The results from the study were compiled into a final report and three copies of the report produced. One copy of the final report was submitted to Uganda Nurses and Midwives Examination Board (UNMEB) as an academic requirement for the award of Diploma in Nursing.

Second copy submitted to the school library and,

Third kept as a personal copy

Finally, the study findings were given to the stakeholders of the institution and hospital at large to address the area of concern.

CHAPTER FOUR: RESULTS.

4.0 Introduction.

This chapter shows presentation and interpretation of data on the topic **'Factors affecting adherence to treatment among anti-hypertensive patients admitted in Medical Ward at St. Francis Hospital Mutolere Kisoro district'**. Data was collected using a pretested questionnaire on a sample of 40 respondents. This has been presented in tables, and figures in form of percentages and frequencies and arranged according to study objectives.

4.1 Socio-demographic characteristics of respondents.

Table 1: Showing distribution of socio-demographic characteristics of respondents

VARIABLE		FREQUENCY(N=40)	PERCENTAGE (%)
Age	18-28 years	2	5
	29-39 years	6	15
	40-50 years	8	20
	Above 50 years	24	60
Gender	Male	13	32.5
	Female	27	67.5
Marital status	Married	24	60
	Divorced	3	7.5
	Single	8	20
	Separated	5	12.5
Educational level	Primary	14	35
	Secondary	2	5
	Tertiary	5	12.5
	Did not attend	19	47.5
Source of income	Daily wages	11	27.5
	Monthly salary	5	12.5
	Business	14	35
	Farming	10	25

From the table results above, majority 24(60%) of respondents were above 50 years, 8(20%) were between 40-50 years, while 6(15%) between 29-39 years, and only 2(5%) were aged between 18-28 years.

Majority 27(67.5%) of respondents were females and 13(32.5%) were male respondents.

The table further shows that more than half 24(60%) of respondents were married, 8(20%) were single, 5(12.5%) had separated, whereas 3(7.5%) had divorced.

Regarding education, nearly half 19(47.5%) of respondents never attended school, 14(35%) had attended primary education, 5(12.5%) had attended tertiary education and only 2(5%) had attended secondary school.

The table shows that 14(35%) of respondents obtained financial support from business, 11(27.5%) from daily wages, 10(25%) carried out farming as the source of income and a few 5(12.5%) had monthly earning as a source of income.

4.2: Patient related factors affecting adherence to treatment among hypertensive patients.

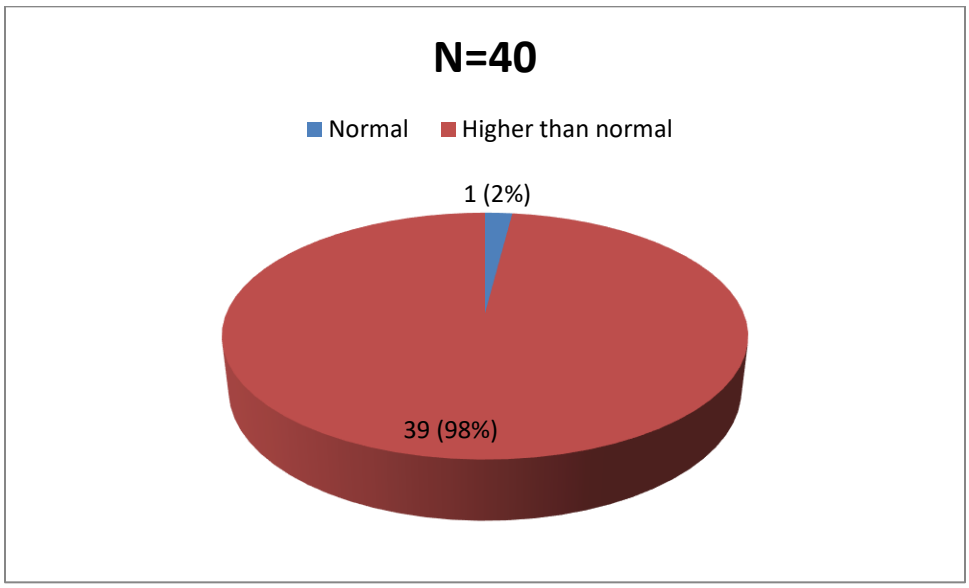

Figure 1: Showing respondents blood pressure on admission.

Nearly all 39(98%) of respondents were aware of having blood pressure higher than normal on admission as noted from the patients charts while only 1(2%) had a normal blood pressure.

4.2.1: Respondents awareness on control measures of high blood pressure

Table 2: Showing respondents awareness on control measures of hypertension

Variable	**Frequency (N=40)**	**Percentage (%)**
Whether respondents had ever heard of control measures of high blood pressure or hypertension		
Yes	24	60
No	16	40
Source of information	**(n=24)**	
Friends/relatives	3	12.5
Media	2	8.3
Health workers	19	79.2
Whether respondents had ever used other treatment modalities other than anti-hypertensive Drugs		
Yes	31	77.5
No	9	22.5
Other treatment modalities used other than anti-hypertensive drugs (n=31)		
Herbs	17	54.8
Prayers	9	29.0
Alcohol	5	16.1

According to the table 2 above, majority 24(60%) of respondents had ever heard of control measures of high blood pressure while 16(40%) had not been taught. Of those who had been taught on control measures of high blood pressure, majority 19(79.2%) heard it from health workers, followed by 3(12.5%) from friends/relatives and 2(8.3%) from media such as radios.

When respondents were asked whether they had ever used other treatment modalities other than anti-hypertensive drugs, majority 31(77.5%) had used them while 9(22.5%) had not. Of those

who used other treatment modalities other than anti-hypertensive drugs, more than half 17(54.8%) used herbs, 9(29%) used prayers and 5(16.1%) used alcohol.

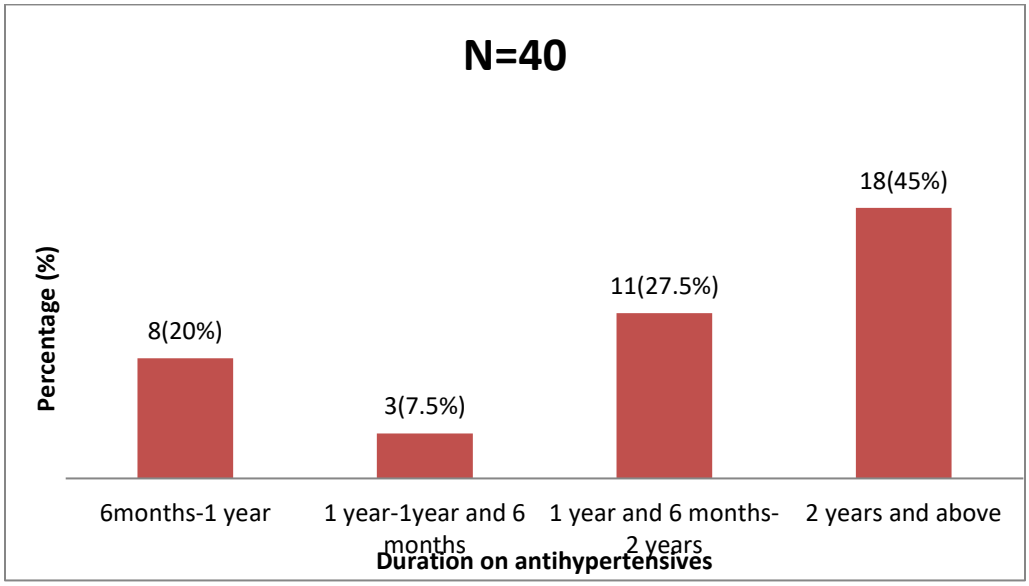

Figure 2: Showing respondent's duration on anti-hypertensive treatment.

Majority of respondents 18(45%) had spent 2 years and above on anti-hypertensive treatment, 11(27.5%) had spent 1 year and a half - 2 years, 8(20%) had spent 6 months -1 year while only 3(7.5%) had spent 1 year -1 year and a half on treatment.

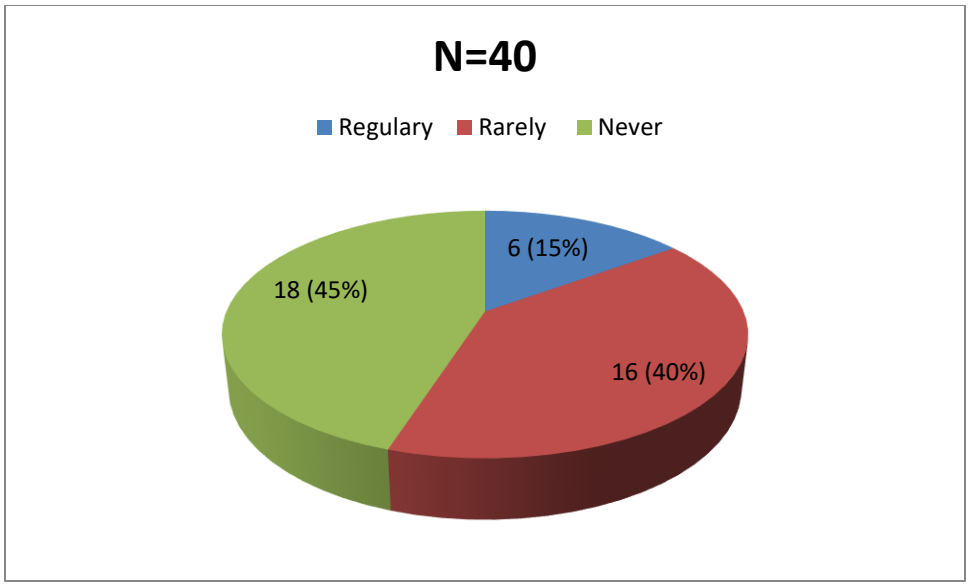

Figure 3: Showing how often respondents exercise.

According to figure 3 above, less than half 18(45%) of respondents lack exercises, 16(40%) rarely do exercises and only 6(15%) exercise regularly.

Table 3: Showing respondents' adherence on anti-hypertensive medicine by health workers and the reasons for not taking drugs as recommended.

Variable		Frequency (N=40)	Percentage (%)
Whether respondents took drugs as recommended			
	YES	14	35
	NO	26	65
Reasons for not taking anti-hypertensive drugs as recommended. (n=26)			
Use of herbal agents			
	YES	15	57.7
	NO	11	42.3
Forgetfulness			
	YES	25	96.2
	NO	1	3.8
Absence of co-supporter			
	YES	4	15.4
	NO	22	84.6
Fear of side effects			
	YES	17	65.4
	NO	9	34.6
Lack of money to buy drugs			
	YES	23	88.5
	NO	3	11.5

The table shows that 14(35%) of participants take anti-hypertensive drugs as recommended by health workers while the majority 26(65%) do not. Among the reasons for not taking anti-hypertensive drugs as recommended by health workers, majority 25(96.2%) of respondents identified forgetfulness, followed by no money to buy drugs 23(88.5%), fear side effects 17(65.4%), use of herbal agents 15(57.7%) and absence of co- supporter 4(15.4%).

4.3 Health care system related factors affecting adherence to treatment among anti-hypertensive patients.

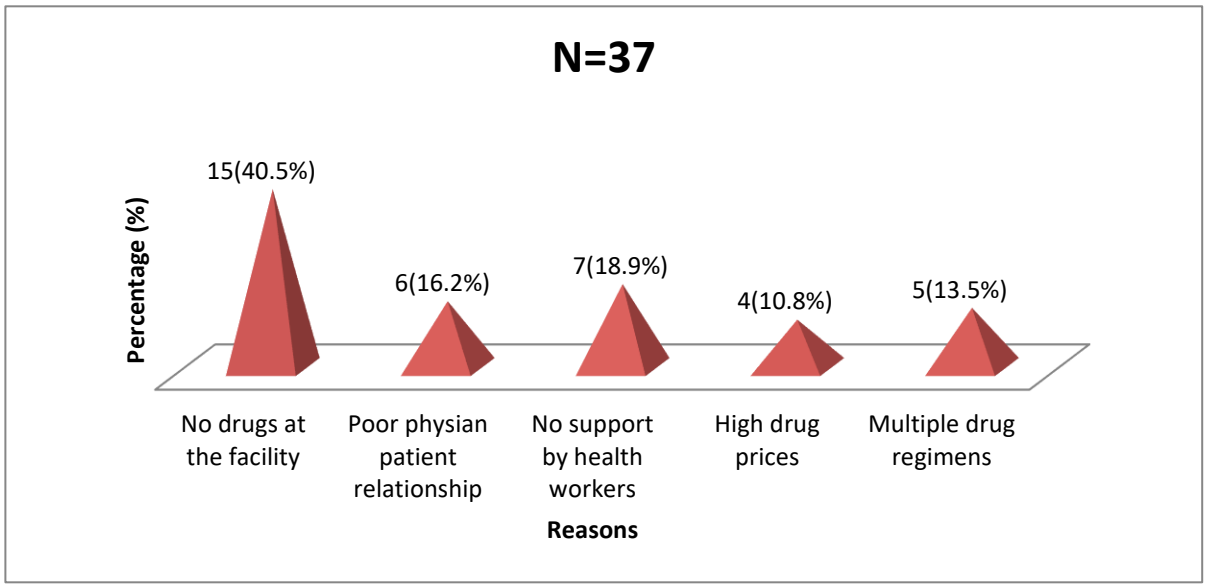

Figure 4: Showing respondents' reasons for missing taking prescribed medication.

Regarding reasons for missing taking prescribed medication, 15(40.5%) of participants identified lack of drugs at the facility, followed by lack of support by health workers 7(18.9%), poor physician-patient relationship 6(16.2%), multiple drug regimen 5(13.5%) and high drug prices 4(10.8%).

Table 4: Showing possible health care system related factors.

Variable	**Frequency (N=40)**	**Percentage (%)**
Rating of the cost of anti-hypertensive medication		
Very Expensive	29	72.5
Expensive	11	27.5
Whether respondents had treatment supporter (s)		
Yes	9	22.5
No	31	77.5
Treatment Supporter(s) identified by respondent (n=9)		
Friends	2	22.2
Partner/children	7	77.8

A high proportion 29(72.5%) of respondents had to rate anti-hypertensive drugs as very expensive while 11(27.5%) had to rate them as expensive.

Also the table results show that majority 31(77.5%) of participants had no treatment supporter while a few 9(22.5%) had treatment supporters. Of those who had treatment supporters, a significant high proportion 7(77.8%) had their partner/children as treatment supporter and 2(22.2%) had friends.

Table 5: Showing number of anti-hypertensive tablets taken daily by respondents

Variable	**Frequency (N=40)**	**Percentage (%)**
One tablet	4	10
Two tablets	3	7
Three tablets	17	43
Above three tablets	16	40

From table 5 above, 17(43%) of respondents take three anti-hypertensive tablets daily, 16(40%) take three tablets and above, 4(10%) take one tablet and 3(7%) take two tablets daily.

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS.

5.0 Introduction.

This chapter discusses study findings in relation to the specific objectives and explains the factors affecting adherence to treatment among hypertensive patients at Medical Ward St. Francis Hospital Mutolere Kisoro District. Furthermore, it provides conclusions as well as recommendations to the research study. Study findings revealed that (35%) of respondents would take drugs as recommended by health workers hence indicating poor adherence. This is in relation with another study conducted by Pratiwi & Perwitasari (2017) among patients on antihypertensive treatment in Indonesia which found out that (96.8%) of respondents did not comply with hypertension treatment.

Marital status

More than half 24(60%) of patients were married. This is because hypertension is most common in adult category of people including married couples where one partner acts as a reminder of the other especially on the right time of taking antihypertensive medication as prescribed by the health workers.

Educational level

Study findings indicated that nearly half 19(47.5%) of the patients never attended school. This may be due to the fact that the study was carried out in a health setting where majority of the patients seeking health care are from families with very low educational backgrounds. According to the study, patients with low educational level might have lacked knowledge about the disease condition as it was noted from this study that only 14(35%) of the respondents were adhering to the given treatment. The study findings do not match with study results done by Hussein and others in Egypt which showed that treatment adherence was high (59.6%) among

literate category of patients (Hussein, Mohammad & Hossam, 2020). Also another study conducted by Bader on predictors of adherence to anti-hypertensive medication in northern Arab Emirates found out that 65.3% patients who had formal education had good adherence (Bader, Koprulu, & Hassan, 2015). Therefore, to improve anti-hypertensive medication adherence among patients who have no formal education, oral health education and advice on prescribed drugs is a fundamental component.

Source of income

Majority 14(35%) of the patients obtained financial support from business hence acting as an alternative source of money to buy drugs. The possible explanation of these results could be that older people do not have much energy to do heavy work in search for money. Therefore, they do set up small businesses as the alternative source of income.

5.1 DISCUSSION.

5.1.1 Patient related factors affecting adherence to treatment among hypertensive patients.

The study findings revealed that nearly all 39(98%) of the hypertensive patients had high blood pressure on admission which implies low adherence to antihypertensive treatment. However, 40% of them lacked knowledge on control measures of high blood pressure. The better the patients' understanding/awareness on the disease condition, control measures and risk factors the better to seek medical help in terms of treatment and advice, hence good adherence. The study results are in line with findings from a study done by Mangendai and others also revealed that patients with sufficient knowledge about hypertension had good adherence to treatment to medication (Mangendai, et al., 2017). However, the study findings differ from results conducted by Pratiwi and Perwitasari (2017) among patients on anti-hypertensive therapy in Indonesia

which found out that 96.8% lacked knowledge about the disease condition.

According to the study findings, the majority (77.5%) of participants had ever used other treatment modalities other than anti-hypertensive drugs, of which (54.8%) used herbs, (29%) used prayers and (16.1%) used alcohol as therapies in the control of high blood pressure. Use of alcohol and herbs as alternative modalities therapies is dangerous as these lack dosage forms, guidelines for management of side effects and more so patients can leave taking modern medicines resulting into poor adherence and associated complications. The findings concur with results from a study done by Setyo and others in Indonesia which indicated that patients opted for herbal/ traditional remedies as substitutes to anti-hypertensive drugs (Setyo, et al., 2014). Furthermore, findings from the study match results from another study by Liwa, Roediger, & Jaka (2017) on herbal and alternative medicine use in Tanzanian adults admitted with hypertension which found out that (91.6%) of them used Apocynum venetum as tea or as a preparation to replace anti-hypertensive drugs. Therefore, taking traditional medications contributed to poor adherence among patients on anti-hypertensive therapy.

Study findings indicated that majority (65%) of the patients do not take anti-hypertensive drugs as recommended by health workers indicating poor adherence to treatment. Among the reasons for not taking anti-hypertensive drugs as recommended by health workers, majority (96.2%) of them identified forgetfulness. The findings are not far from study results from a study done by Aghoja and others in Nigeria on medication adherence and its correlates among hypertensive patients where 56.4% forgot to take the medications (Aghoja, et al., 2013). In addition, a study conducted by Gebreyohannes and colleagues in Ethiopia revealed that (20.1%) of the patients

had poor adherence due to forgetfulness (Gebreyohannes, et al., 2017).

More so according to the study, (65.4%) feared to take drugs due to side effects related to anti-hypertensive drugs such as impotence especially in men. This is in agreement with a study done by Gebreyohannes and others in Ethiopia where (80%) of the patients had poor adherence to anti-hypertensive medication due to fear of side effects (Gebreyohannes, et al., 2017). Similar support is noted from another study conducted by Tedla and Bautista (2016) in Oxford, America found out that (34.5%) were non-adherent due to side effects experienced like decrease in sexual drive and excessive urination.

Findings from the study revealed that a significant high proportion (88.5%) of the patients had no money to buy drugs. This narrates why the patients identified business as the major source of income. Lack of money to buy drugs makes patients miss taking drugs hence a major factor contributing to poor adherence to anti-hypertensive treatment. The findings are in line with the findings from a study done by Ramni (2017) in Nigeria on factors influencing medication adherence among patients with hypertension which found out that lack of funds for the costs of anti-hypertensive medications contributed to non-adherence in (39%) of patients. Also the study results are supported by findings from another study done by Maginga and colleagues in Tanzania which showed that (37.8%) had poor adherence because of shortage of money to buy anti-hypertensive drugs (Maginga, et al., 2016).

5.1.2 Healthcare system factors affecting adherence to treatment among anti-hypertensive patients.

The study findings revealed that majority (92%) of the patients had ever missed taking prescribed medication. This indicated very poor adherence among the patients. Among the reasons for missing taking prescribed medication, (37.5%) of patients identified lack of drugs at the facility. Lack of access to drugs in healthcare facilities or pharmacies increases the risk of poor adherence. The results concur with findings obtained from a study done by Sibomana, McNamara & Walker (2019) in Rwanda among adult hypertensive patients on anti-hypertensive medication which indicated that lack of medication supply contributed to (77%) non-adherence. However, a report released by MOH of Indonesia showed that inadequate drugs at the health facilities contributed to only (2%) non-adherence (Minister of Health of The Republic of Indonesia, 2019).

Results from the study found out that (17.5%) of the patients lacked of support by health workers. Support from health workers creates motivation to the patients as some of them are desperate and are suffering from other conditions, so they need constant re-assurance from health workers to enhance medication adherence. The findings do not match with results obtained by Soesanto and others in Indonesia on the factors affecting medication adherence in patients with hypertension which showed that 66.1% of the patients adhered to hypertension treatment due to the role played by health workers (Soesanto, et al., 2021). Also, a study done by Leslie (2019) in Ghana found out that adherence to anti-hypertensive medication was high (80%) of participants due to the advice and constant reminders got from health workers.

According to the study, a high proportion (72.5%) of the patients stated that anti-hypertensive

medication was very expensive. This describes why (88.5%) of them had to miss taking drugs due to lack of money to buy drugs indicating poor adherence. This is in line with findings from a study conducted in Nigeria which found out that a good number of patients have problems of financing their refills and this contributes to non-adherence (Aghoja, et al., 2013). Also a study report done by Kamath & Satish in India revealed that the cost ration for anti-hypertensive medications is high above (100%) and this creates a burden on patients on refills.

The study findings found out that majority (77.5%) of participants had no treatment supporter. This mostly affects the elderly as their cognitive and functional memories are impaired thus in need of a family supporter to remind, support and assist them in taking drugs. Presence of treatment supporter helps a patient keep in touch with appointments dates, refills and to take drugs in case of forgetting. The findings are contrary to the research results found out by Sukma and others in Indonesia on hypertensive patients on medication which revealed that (66.7%) of patients had good adherence to anti-hypertensive drugs due to good family support (Sukma, Widjanarko & Riyanti, 2018). Another related literature from a study by Soesanto and others in Indonesia also showed that adherence to hypertension medication is directly correlated with the existence of social support from family members or friends who help to remind when to take drugs (Soesanto, et al., 2021).

5.2 CONCLUSION.

The following conclusion was drawn from the study;

Adherence rate to anti-hypertensive medication among the patients was low at (35%).

The study findings revealed that nearly all hypertensive patients were aware of having high blood pressure on admission which indicated good knowledge about hypertension. However,

(40%) of the patients lacked knowledge on control measures of high blood pressure.

Major patient related factors that affected adherence to anti-hypertensive medication were; forgetfulness, lack of money to buy drugs, fear of side effects from drugs, use of herbal agents and absence of co-supporters.

Also from the study, the health care system related factors that affected adherence to anti-hypertensive treatment were; pill burden, absence of treatment supporters, high drug prices, lack of drugs at the facility, lack of support by health workers, poor physician-patient relationship and multiple drug regimen.

5.3 RECOMMENDATIONS.

Patients need advice, support and information from health professionals in order to understand the importance of using drugs as prescribed. It is recommended that hypertensive patients should be counseled every time whenever they visit health centers, clinics and hospitals to improve on their adherence to medications.

Ministry of Health need to plan strategies aimed at improving anti-hypertensive adherence such as improving education campaigns on the importance of adherence to anti-hypertensive medications through media, posters, and social centers like churches and Mosques.

There is need for the government to invest in chronic care especially reducing prices or providing free medications to patients who are on long term treatment as in hypertension. Community people should be encouraged to start income generating activities like growing of crops and rearing of more animals so that they can get surplus for sale and be able to care for themselves during chronic illnesses. More so, people should be encouraged to join community based insurance schemes and hospital insurance schemes to help in payment of hospital bills during chronic illnesses like hypertension.

More study should be done on adherence by hypertensive patients to medications in different hospitals for a clear picture for generalization of results.

5.4 IMPLICATION TO NURSING PRACTICE.

Hypertension is one of the most important cardiovascular risk factor but its control remains a challenge all around the world. Therefore, the recommendations put forward will help the nursing practice in identifying strategies and measures of promoting adherence to anti-hypertensive treatment which will help in reducing cardiovascular morbidity and mortality.

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APPENDIX I: CONSENT FORM FOR THE STUDY.

Hello,

My name is **DUSABE CHAP**, a diploma student nurse in final year of study at Mutolere School of Nursing and Midwifery conducting a study entitled **"Factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St.Francis Hospital Mutolere, Kisoro District".**

This study is so academic. You have been selected to participate in this study, the views you present are important because they present those of many other patients. The information will be kept confidential by using identification numbers instead of your real name and your participation is entirely voluntary. Although you might not benefit directly by participating in the study, the results of the study will influence policies concerning management to improve medical care and ultimately the quality of life for patients receiving treatment for hypertension and you will not get any harm from the study.

If you have any question regarding the study, you are free to ask, just feel free.

Respondents' signature/thumb print…….Date……

I have clearly explained the purpose, objectives and benefits of the study concerning the factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St. Francis Hospital Mutolere, Kisoro District.

Name of the researcher: **DUSABE CHAP.**

Researcher's signature…….Date……

APPENDIX II: QUESTIONNAIRE FOR THE STUDY.

My name is **DUSABE CHAP,** a diploma student nurse in final year of study at Mutolere School of Nursing and Midwifery conducting a study to determine the **FACTORS AFFECTING ADHERENCE TO TREATMENT AMONG HYPERTENSIVE PATIENTS ADMITTED IN MEDICAL WARD AT ST.FRANCIS HOSPITAL MUTOLERE KISORO DISTRICT.**

You have voluntarily consented to participate in the study and all the information you will give will be kept confidential.

Instructions.

1. Do not write your name(s) anywhere on this questionnaire.

2. Fill in the box or enter appropriately in the space provided.

3. Please endeavor to respond to all questions accurately to enhance data accuracy and quality.

PART ONE: Socio-demographic data.

1. What is your age in years?

A. 18-28 years ☐ C. 40-50 years ☐

B. 29-39 years ☐ D. Above 50 years ☐

2. What is your gender?

A. Male ☐ B. Female ☐

3. What is your marital status?

A. Married ☐ C. Single ☐

B. Divorced ☐ D. Separated ☐

4. What is your highest level of education?

A. Primary level ☐ C. Tertiary level ☐

B. Secondary level ☐ D. Did not attend ☐

5. What is your source of income?

A. Daily wages ☐ C. Business ☐

B. Monthly salary ☐ D. If others, specify.....

PART TWO: Patient-related factors affecting adherence to treatment among hypertensive patients.

6. How were you told about your blood pressure readings at the time of admission?

A. In normal ranges ☐ B. Higher than normal ☐

7. Have you ever been taught on the control measures of high blood pressure?

A. Yes ☐ B. No ☐

8. If yes to question 7 above, what was the source of information?

A. From friends/ relatives ☐ B. Media (radios, newspapers, television) ☐

C. From health workers ☐ D. Others specify.....

9. Have you ever used other treatment modalities other than hypertensive drugs?

A. Yes ☐ B. No ☐

10. If yes to question 9 above specify.

A. Herbs ☐ B. Prayers ☐ C. Alcohol ☐

11. How long have you been on anti-hypertensive treatment?

A. 6 months-1year ☐ C. 1year and 6 months -2 years ☐

B. 1year – 1year and 6 months ☐ D. 2 years and above ☐

12. How often do you exercise?

A. Regularly ☐ B. Rarely ☐ C. Never ☐

13. Do you take drugs as recommended by health workers?

A. Yes ☐ B. No ☐

14. If "No" to question 13 above, why?

Reason(s)	**Response**
I take herbal agents	
I normally forget	
When my co-supporter(partner, friend e t c) are not around	
Fear of side effects from the drugs	
No money to buy drugs	
Others, specify.....	

PART THREE: Health care system related factors affecting adherence to treatment among hypertensive patients.

15. Have you ever missed taking prescribed medication?

A. Yes ☐ B. No ☐

16. If yes to question 15 above, what was the cause?

A. No drugs at the facility ☐ B. Poor physician-patient relation ship ☐

C. No support by health workers ☐ D. High drug prices ☐

E. Multiple treatment regimens ☐

17. How do you rate the cost of anti-hypertensive medication you are taking?

A. Very expensive ☐ C. Cheap ☐

B. Expensive ☐ D. Very cheap ☐

18. Do you have other treatment supporters?

A. Yes ☐ B. No ☐

19. If yes to question 18 above, who are they?

A. Friends ☐ B. Health workers ☐ C. My partners/children ☐

20. How many anti-hypertensive tablets are you taking daily?

A. One tablet ☐ C. Three tablets ☐

B. Two tablets ☐ D. Above three tablets. ☐

THANKS, GOD BLESS YOU

APPENDIX III: PROPOSAL APPROVAL FORM

PROPOSAL APPROVAL FORM.

Name of the student: DUSABE CHAP.

Title of research study: **Factors affecting adherence to treatment among hypertensive patients admitted in medical ward at St. Francis Hospital Mutolere, Kisoro District.**

I hereby accept this proposal for the above research study /project study and approve it for submission to Mutolere School of Nursing and Midwifery and Institution's Research and Ethics Committee.

Name of supervisor: MR: NIZEYIMANA CHARLES

Signature .....

Date..... 14.03.2023.....

Approved by

Principal:

Name: SR. KEMIGISHA CATHELINE.

Signature.....

Date..... 16th march 2023.....

MUTOLERE SCHOOL OF NURSING & MIDWIFERY ST. FRANCIS HOSPITAL 16 MAR 2023 P.O.BOX 26 KISORO

APPENDIX IV: INTRODUCTORY LETTER FOR THE STUDY.

MUTOLERE SCHOOL OF NURSING
AND MIDWIFERY
P.O. BOX 26, KISORO
Email: mutolerehti@ucmb.co.ug

Keep the Candle Burning and Pass on the Light
WE TRAIN FOR QUALITY CARE

Your Ref: .....
Our Ref: **NMT/023**

DATE: 27/3/2023

TO:
THE MEDICAL DIRECTOR,
ST. FRANCIS HOSPITAL MUTOLERE,
PO BOX 26,
KISORO.

27/3/23

Dear Sir,

RE: RESEARCH PROJECT FOR DIPLOMA NURSING EXTENSION:

This is to introduce **DUSABE CHAP** who is a student Nurse at Mutolere school of Nursing and Midwifery in his final year of study.

He is required to prepare an individual research project as part of the requirements for the award of Diploma in Nursing Extension. He has written his research proposal and is at the stage of data collection. He is interested in the area of "**FACTORS AFFECTING ADHERENCE TO TREATMENT AMONG HYPERTENSIVE PATIENTS ADMITTED IN MEDICAL WARD AT ST. FRANCIS HOSPITAL MUTOLERE, KISORO DISTRICT**"

He seeks to collect data in your health facility/Department and therefore requests for your support.

I will be grateful for any relevant support you shall accord him regarding his research study.

Thank you.

MUTOLERE SCHOOL OF NURSING & MIDWIFERY ST. FRANCIS HOSPITAL
27 MAR 2023
P.O. BOX 26 KISORO

Yours Sincerely

.....

SR. KEMIGISHA CATHERINE
PRINCIPAL

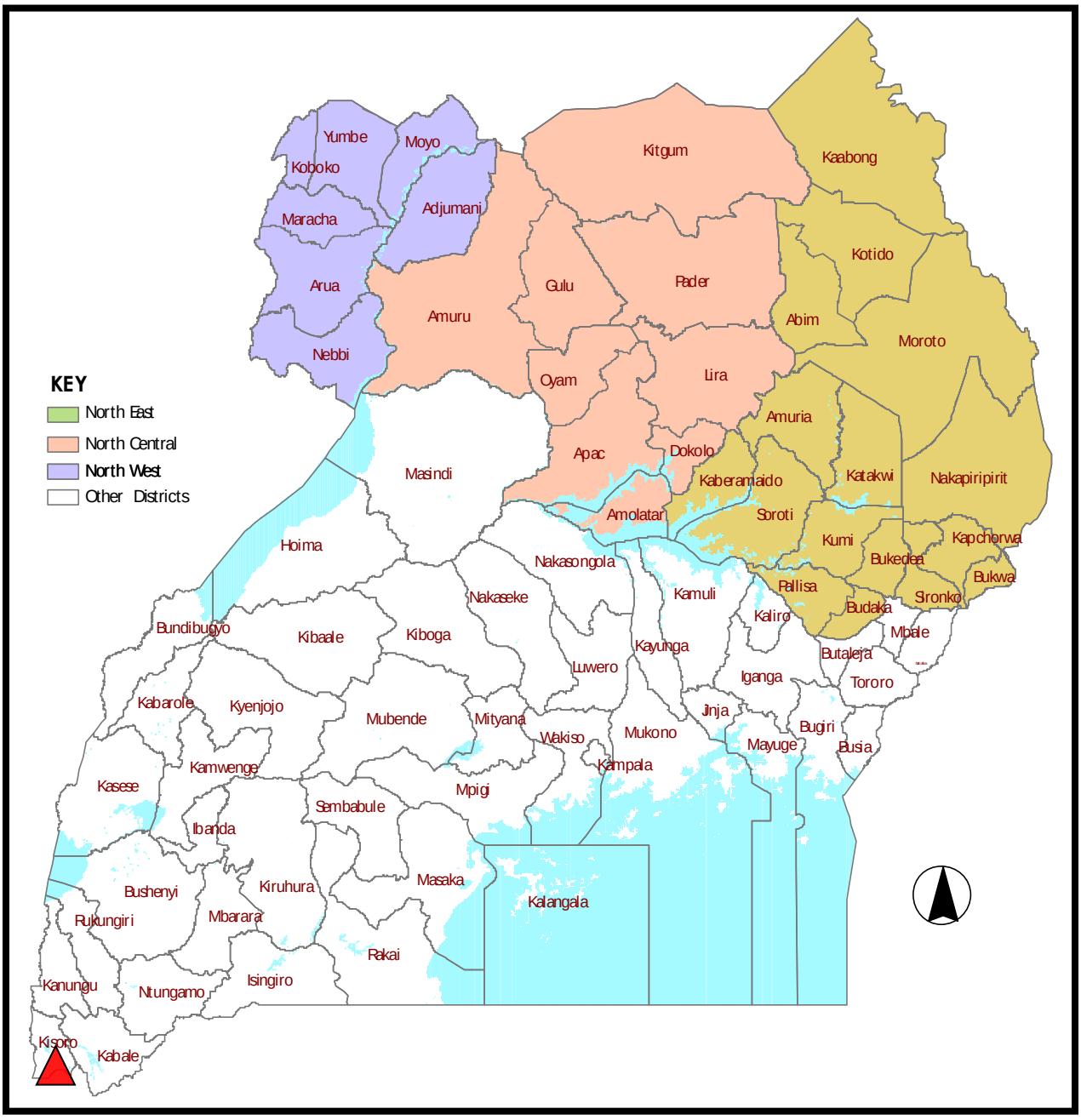
APPENDIX V: BUDGET FOR THE RESEARCH.

ITEM	QUANTITY	UNIT COST	TOTAL COST
STATIONARY			
Ream of paper	1	20000/=	20000/=
Pens	2	500/= @	1000/=
Flash disk	1	25000/=	25000/=
Calculator	1	12000/=	12000/=
		Sub total	**58,000/=**
SECRETARIAL SERVICES			
Proposal typing and printing (2 books)	45 pages	500/=	45000/=
Binding proposal (2 books)		2000/=	4000/=
Photocopying of data collection tools	60 copies	300/=	18000/=
Report typing and printing.	65 pages	500/=	97500/=
Report binding	3 books	2000/=	6000/=
		Sub total	**170,500/=**
OTHERS			
Transport		50000/=	50000/=
Research supervision		200000/=	200000/=
Internet		50000/=	50000/=
		Sub total	**300000/=**
GRAND TOTAL			**528500/=**

APPENDIX VI: SCHEDULE FOR THE RESEARCH.

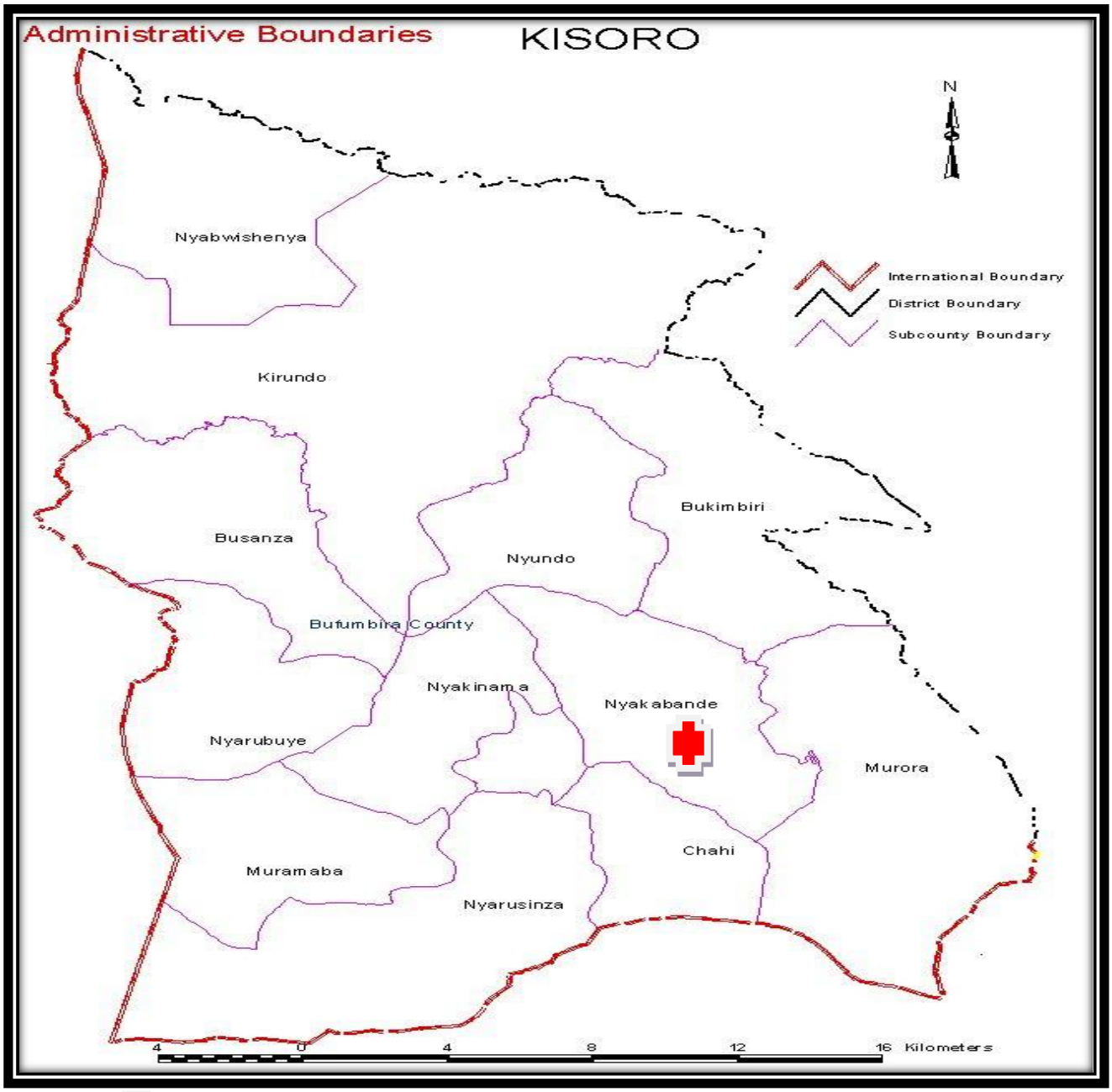
ACTIVITY	OCT 2022	NOV 2022	DEC 2022	JAN 2023	FEB 2023	MARCH 2023	APRIL 2023	MAY 2023	Responsible person
Topic identification and approval									Researcher and supervisor
Proposal writing									Researcher and supervisor
Proposal defense and submission									Researcher and research committee.
Data collection									Researcher
Data entry and analysis									Researcher
Report writing									Researcher and supervisor
Report approval and submission									Researcher, supervisor and school administration

APPENDIX VII: MAP OF UGANDA SHOWING THE LOCATION OF KISORO DISTRICT.



KEY KISORO DISTRICT

APPENDIX VIII: MAP OF KISORO DISTRICT SHOWING THE LOCATION OF ST. FRANCIS HOSPITAL MUTOLERE.



KEY- St. Francis Hospital Mutolere Kisoro district