

FACTORS ASSOCIATED WITH ADHERENCE TO ANTIHYPERTENSIVES AMONG HYPERTENSIVE PATIENTS ATTENDING HYPERTENSIVE CLINIC OF MBALE REGIONAL REFERRAL HOSPITAL MBALE DISTRICT.A CROSS-SECTIONAL STUDY .

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Abstract

Background:

Adherence to antihypertensive medication is a major challenge today, this study was meant to determine the factors associated with adherence to AHM. The study was to assess the socioeconomic factors, identify the Demographic factors, to determine the Health system-related factors affecting adherence to antihypertensive drugs among hypertensive patients attending Mbale regional referral hospital Mbale district.

Methodology:

The research design was a cross-sectional study where quantitative approaches were used, the sample size was 97 patients and was determined using Kish and Leslie formula. The sampling method used was random sampling. Data were analyzed using pencils, pens, and a calculator and then presented using figures, tables, and pie charts.

Findings:

Most of the respondents 42(43.3%) said that they spent more than ugshs10,000 to purchase anti-hypertensive medications per week, 48 (48.5%) respondents said that they spent above ugshs 5000 for transport to the health facility every hypertensive clinic day. The majority of the respondents 55(56.7%) said that their families reminded them when to take their medications, 72 (74.2%) said that they did not receive all their medications from MRRH. 34 (47.2%) of the respondents said that most of the medications prescribed to them were not always available at the facility.

Conclusions:

The study revealed that the patient's economic status and family support played a vital role in ensuring adherence to AHM, it also revealed that the absence of the prescribed medication and the patient's inability to access the hospital for reviews was a major hindrance to adherence

Recommendations:

From the study, the researcher recommends that the hospital should put up support groups and ensure continuous education of the patients on the importance of adherence to hypertensive medication and the consequences of non-adherence. The government and its partners should always ensure the timely supply of antihypertensive medicines to the health facility.

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1. Background of the study

Hypertension is a non-communicable disease characterized by elevated blood pressure of systolic and Diastolic of 140/90 mmHg.

Globally an estimated 1.28 billion adults 30 to 79 years worldwide have hypertension most living in low- and middle-income countries and it's estimated 46% of adults with hypertension and unaware that they have the disease. Poor adherence is the most significant cause of uncontrolled blood pressure, an estimated 50 to 70% of people do not take their anti-hypertensive medication as prescribed.

In sub-Saharan Africa research conducted, about factors associated with poor adherence to medication among hypertensive patients, there were 2,198 individuals from twelve low- and middle-income countries enrolled. According to Macquart de Terline, D et al, 2019 the study and overall 678

(30.8%), and 738 (33.6%), and 782 (35.6%) participants had respectively low, medium, and high adherence to anti-hypertensive medication multivariate analysis showed that the use of traditional medicine DM de Terline, 2019 and individual wealth significantly and independently associated with poor adherence to anti-hypertensives this study thus according to Macquart de Terline, et al, 2019 revealed a high frequency of poor adherence in African patients and the associated factors was revealed.

In Namibia the country with the highest burden and incidence of hypertension in sub-Saharan Africa, a total of 12 patients with hypertension, mean age of 47.3 approximately were involved in research about: Assessing adherence to antihypertensive therapy in primary health care, four out of every 10 patients had at least one other chronic comorbidity in addition to hypertension. The majority of patients reported receiving adequate information about health care from health-care providers on how to take medication. However, over half of the patients were not knowledgeable about the consequences of hypertension

and non-adherence. The mean adherence level was 76.7 none of the patients had perfect adherence and less than half of the patients had acceptable levels of adherence to anti-hypertensive medication which is less or equal to 80% (Nashiongo MM et al 2017).

Another study conducted in Ethiopia about a systematic review and meta-analysis of non-adherence to antihypertensive drugs, indicated that a pooled national anti-hypertensive medication adherence among hypertensive patients was 65.1% the highest medications adherence was 83.5 occurring in the Somali region. with the lowest medication adherence being 58.5% in the Tigray region. the meta-analysis suggested a significant increase in medication adherence among patients who had good knowledge of hypertension and 2.54 increase in the odds among patients who had comorbidities Jafari-Oor, Mehdi et al, 2019. This meta-analysis also revealed a 51% reduction of uncontrolled blood pressure in a man patient to adhere to an anti-hypertensive medication regimen (M Destal, et al 2022).

In Tanzania, a cross-sectional study about medication adherence and blood pressure control among hypertensive outpatients attending a tertiary cardiovascular hospital in Tanzania: included a total of 849 outpatients taking anti-hypertensive drugs for more than 1 month before recruitment, were randomly enrolled for the study. The mean age was 59.9 Overall a total of 653 (76.9%) participants had good adherence and 367 (43.2%) had their blood pressure controlled. Multi-variate Logistics regression analysis showed lack of a health insurance, last BP measurements greater than one week, and last clinic attendance greater than one month. These were sought to be Independently associated factors for poor adherence. In general, a substantial proportion of hypertensive outpatients in this tertiary level setting had good medication adherence (P, Pallangyo et al 2022).

In Uganda, although anti-hypertensive medication adherence is important for positive health outcomes, research conducted amongst hypertensive stroke survivors, about adherence to anti hypertensive medication in southwestern Uganda re-

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vealed only 17% adhere to anti-hypertensive medications. researchers state that lack of knowledge is the main contributor to poor adherence despite medication adherence being the key area of Interest among practitioners and researchers, a gold standard intervention does not exist.

1.1. General objectives

To determine factors associated with adherence to antihypertensive among hypertensive patients attending the hypertensive Clinic of Mbale Regional Referral Hospital Mbale District.

1.1.1. Specific objectives

1. To assess the Socio-economic Factors associated with adherence to antihypertensive among hypertensive patients attending hypertensive Clinics in MRRH.
2. To identify the Demographic factors associated with adherence to antihypertensive among hypertensive patients attending the hypertensive Clinic of MRRH In Mbale district.
3. To determine the Health system-related factors associated with adherence to antihypertensive among hypertensive patients attending the hypertensive clinic of Mbale Regional Referral Hospital, Mbale District.

2. METHODOLOGY

2.1. Study design

The study used a cross-sectional study research design with qualitative approaches. The study design was used because it allowed the researcher to capture a wide variety of views from the respondents.

2.2. Study Area

The study was conducted at Mbale Regional Referral Hospital, commonly known as Mbale Hospital, Eastern Uganda. It's a referral hospital for the districts of Busia, Budaka, Bukwa, Butaleja, Manafwa, Mbale, Pallisa, Sironko, and Tororo. Mbale Hospital is located on Pallisa Road, in the central business district of the

town, approximately, by road, Northeast of Kampala, Uganda's capital. The coordinates of Mbale Regional Referral Hospital are 1°04'36.0" N, 34°10'35.0" E (Latitude: 1.76667; Longitude: 34.176389). The study was carried out between September 2022 to March 2023.

2.3. Study population

The study consisted of hypertensive patients attending a Hypertensive clinic at the time of data collection and who consented to form the study population.

The majority of the population is comprised of the Bamasaba, however, other tribes such as Baganda, Bagwere, Karamojongs, Itesots, and Luo among others constitute the population.

The staple food is matooke and malewa though other foods like rice, posho, vegetables and cereals, cassava, and sweet potatoes among others are as well consumed by the people

Male circumcision is the commonest cultural practice conducted every even year: whereby the boys are transformed into men through the act of circumcision. The main celebrations are conducted at Mudodo cultural grounds and other areas as well.

2.4. Sample size determination

Sample size was determined using the formulae $n = Z^2PQ$

d^2 Is the sample size

Where;

Z = confidence limit corresponding to 95% (1.96) confidence level.

P = the estimated prevalence, in this study the prevalence is not known, 50% (0.5) prevalence will be assumed by the researcher.

Q = the percentage of people not affected $(1-P) = 1-0.5 = 0.5$.

D = the error of precision, in this study, 10% (0.1) will be allowed

$N = 1.96 \times 1.96 \times 0.5 \times 0.5 / 0.1 \times 0.1$

$N = 96.04$ approximately 97 respondents were included in the study.

2.5. *Sampling technique*

A simple random sampling method was employed in selecting respondents since it gave all patients a chance to participate in the study. Respondents were selected from the attendance register and assigned numbers.

2.6. *Sampling procedure*

The procedure involved the researcher writing down small pieces of paper containing the numbers 1 and 2, which were folded then neatly, mixed up and the patients were asked to pick up one piece of paper only and open it up, for those that picked papers containing 1, were recruited for the study whereas those that picked papers containing 2 did not take part in the study. This was done continuously on every hypertensive clinic day until the study population of 97 participants was reached.

2.7. *Data collection method*

The data collection method used was a structured interview where questions composed according to the set objectives, were asked to the respondents and appropriate answers were obtained.

2.7.1. *Data collection tools*

Data collection tools included a semi-structured questionnaire, designed based on study objectives, and available information on demographic characteristics and patterns of hypertensive patients attending hypertensive Clinics.

2.7.2. *Data collection procedure*

After obtaining approval from the school the researcher proceeded to the executive director of MRRH to obtain permission to run the study from the hospital, she then approached individual hypertensive patients for consent, and for each, time was spent to build a rapport. she then proceeded to conduct health education, she explained the purpose and the benefit of the study to individual participants. If he/she accepted he/she was asked to sign an informed consent

form. A guided questionnaire was used to obtain details from the hypertensive clients. The questionnaire included information regarding socioeconomic factors, Demographic factors such as age, sex, occupation, and health system-related factors regarding adherence to antihypertensive medication.

2.8. *Study Variables*

2.8.1. *Independent Variables*

These included the factors associated with adherence to anti-hypertensive.

2.8.2. *Dependent Variables*

The dependent variable was adherence to anti-hypertensive among hypertensive patients attending the hypertensive clinic of MRRH

2.9. *Quality control*

The questionnaire developed was pre-tested at Soroti Regional Referral Hospital with 15 patients before the actual data collection and where errors identified were corrected. The questionnaire included both closed and opened ended questions and an appropriate translator was requested, from within, to help translate for those who did not speak the English language, this was to help the respondents understand and answer appropriately, maintain consistency, and prevent language barriers.

2.10. *Pre-testing*

The researcher pretested the questionnaire on 15 patients at Soroti Regional Referral Hospital, a week before going to Mbale Regional Referral Hospital for the collection of data between December 2022 to January 2023 to determine the factors associated with adherence to antihypertensives.

This enabled the researcher to identify any missing gaps in the data collection tool and fill them appropriately. It also aided the researcher find out the relevance of her study and decide on whether to go on with it or choose another topic of study.

2.11. Selection Criteria

2.11.1. Inclusions

Participants with hypertension diagnosis of at least 6 months regardless of age, the participants included those who had started anti-hypertensive therapy in the past 6 months and attending a hypertensive clinic at Mbale Regional Referral Hospital, these were approached after consenting to participate in this study and were included in the study.

2.11.2. Exclusions

The study will be excluded diagnosed hypertensive patients who had not yet been initiated to anti-hypertensive therapy, those too sick to be interviewed, and those who did not attend their hypertensive clinic at Mbale Regional Referral Hospital, it will also exclude those diagnosed patients elsewhere in the hospital.

2.12. Data analysis and presentation

Data will be recorded first through tallying, editing, and tabulating. The results will be entered into the computer data program and micro soft excel for frequency tables. It will then be presented in the form of table pie charts and graphs to set the accuracy of the presentation of the results and answer the researcher.

2.13. Ethical considerations

The researcher first asked for permission from the Medicare Health Professionals College administration which gave me an introductory letter to present to the Department of Research and ethics committee of Mbale Regional Referral Hospital seeking permission to carry out the research study from the facility.

Informed consent was sought from the hypertensive patients after being accepted to carry out the research at the facility and after consenting, they signed the consent form to show that were consented.

Privacy was ensured by making sure that the information collected did not contain an individual identity. All questionnaires were coded. To ensure confidentiality, the information collected was kept under lock and key and only accessible to the

researcher for use. Participants were interviewed separately from other clients to avoid breaches of privacy and confidentiality.

Participation in this study was not in any way compulsory. Detailed information about the study was explained to the participants. After understanding all the details, informed consent forms were issued, and written consent was obtained.

3. REPRESENTATION OF DATA

3.1. Demographic factors associated with adherence to anti-hypertensive medication.

According to Table 1, the results majority of the patients were 50 years and above 50 (51%), between 30 to 39 years were 33 (34%), and between 20 to 29 years were 14 (14%). The majority of the patients were females 58 (60%) and 39 (40%) were males. Most of the patients were married, 40(41.2%), those who were single were 25 (25.8%), Divorced 17 (17.5%) other were 15 (15.5%). The majority of the patients had at least secondary level education 45 (46.4%) 22(22.7%) had primary level education, 20 respondents had university or college certificate education and 10 patients had never attended school. Most of the patients were civil servants 42 (43.3%), Businesswomen/men 23 (23.7%), Peasant farmers 20 (20.6%), and the others were 12 (12.4%).

3.2. Socioeconomic factors associated with adherence to anti-hypertensive medications.

Table 2 shows that Majority of the participants spent above Ugsh 10,000; 42 (43.3%) on purchasing hypertensive medications weekly, 23 (23.7%) of the participants obtained their medications at no cost from the health facility, 20(20.6%) of the participants obtained their medications at a cost ranging between Ugshs 5000 to Ugshs 9900, while 12 (12.4%) participants obtained their medications at a cost between Ugshs 1000 to Ugshs 4900.

According to figure 1, Most of the participants 47 (48.5%) spent above Ugsh 5000 in transport costs to the health facility, 25 (25.8%) of them

Table 1: Shows demographic characteristics of participants. (n=97)

Variable	catagory	Frequency	percentage
Age	20-29	14	14%
	30-39	33	34%
	50 and above	50	51%
Gender	Male	39	40%
	Female	58	60%
Marital status	Married	40	41.2%
	Single	25	25.8%
	Divorced	17	17.5%
	Others (specify)	15	15.5%
Educational level	Never attended school	10	10.3%
	Primary level	22	22.7%
	Secondary level	45	46.4%
	Others (Specify)	20	20.6%
Occupation	Peasant farmer	20	20.6%
	Business woman/man	23	23.7%
	Civil servant	42	43.3%
	Others (specify)	12	12.4%

Table 2: Results on money spent on acquiring antihypertensive medications per week (n=97)

Cost of Medication per week	No. Of Participants	Percentage (%)
No Cost	23	23.7
1000-4900	12	12.4
5000-9900	20	20.6
Above 10000	42	43.3
TOTAL	97	100

spent between Ugshs 3000 to Ugshs 4900, 17 (17.5%) spent between Ugshs 1000 to Ugshs 2900 while 8 (8.2%) of the participants spent nothing in transport costs to the health facility.

In table 3, Majority of the participants 45 (46.4%) resided in areas 11km and more from the health facility followed by 25 (25.8%) participants whose homes were 6-10km from the health facility, 15 (15.5%) participants lived 1-5km from the health facility whereas 12 (12.4%) participants lived 1km or less away from the health facility.

3.3. Demographic factors associated with adherence to anti-hypertensive medication.

Table 4 shows that majority of the respondents 55 (56.7%) reported that their families were very Supportive and reminded them to take their medications, 30 (30.9%) had other responses such as, "some help me", 10 (10.3%) responded that they didn't know, while 2 (2.1%) reported that their families discouraged them from taking their medication.

Figure 3 shows that most of the respondents, 37 (38.1%) reported that they exercised daily mostly by taking walks for about 30minutes, 30 (30.9%) exercised once a week, 20 (20.6%) reported that they exercised once in a while, whereas 10 (10.3%)

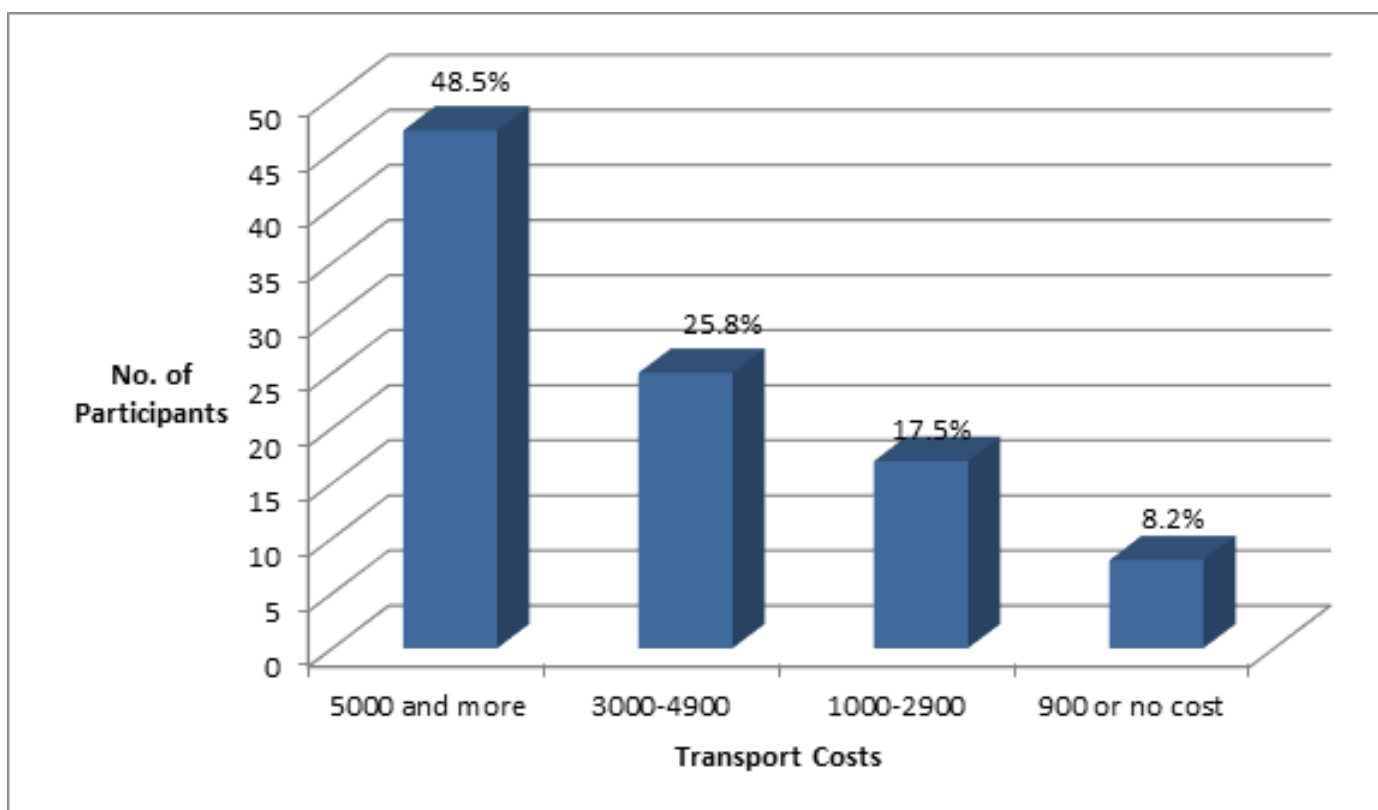


Figure 1: Results on money spent on transport while accessing health services.

Table 3: Results on distance of the health facility from home. (n=97)

Distance to health facility	No. of Participants	Percentage (%)
1km or less	12	12.4
1-5km	15	15.5
6-10km	25	25.8
11km and more	45	46.4
Total	97	100

Table 4: Results on family support on taking anti-hypertensive medication. (n=97)

Family support	No. Of Respondents	Percentage (%)
Very Supportive	55	56.7
Discourage me	2	2.1
I don't know	10	10.3
Others	30	30.9

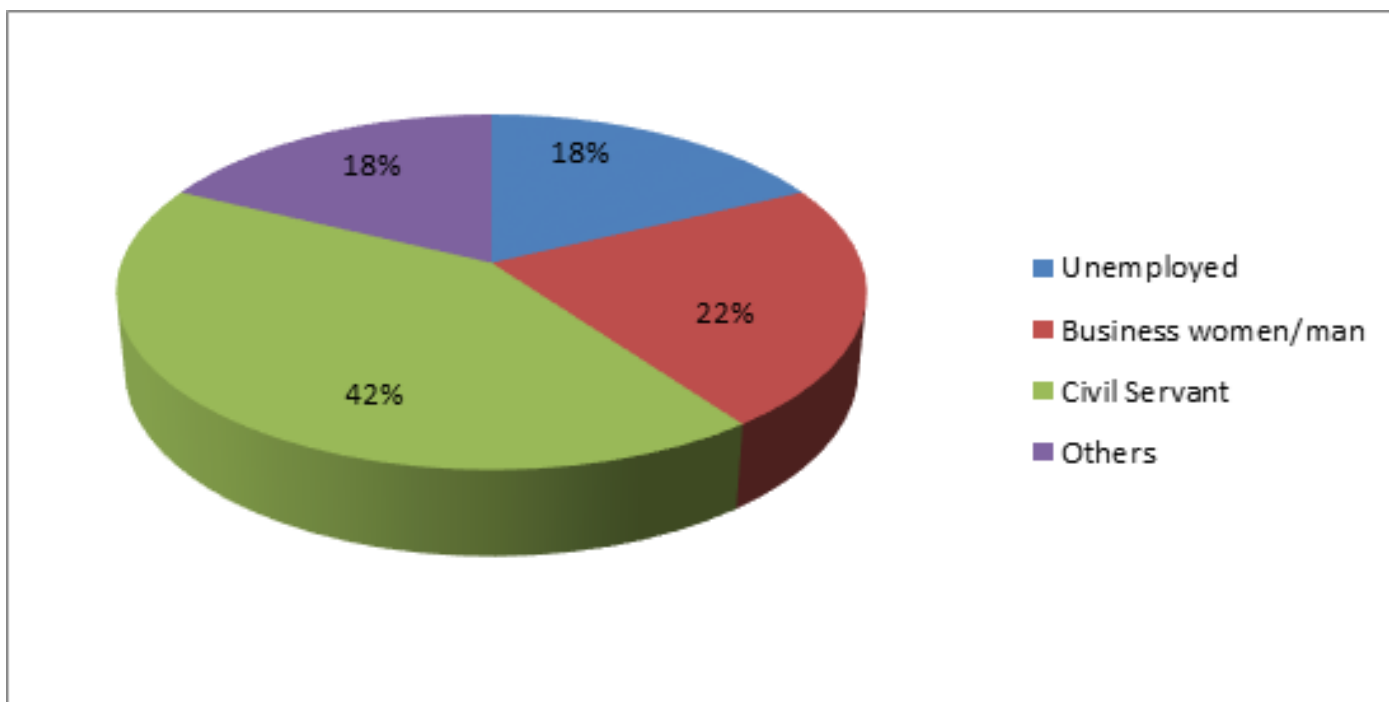


Figure 2: Results on employment status of the participants. (n=97)

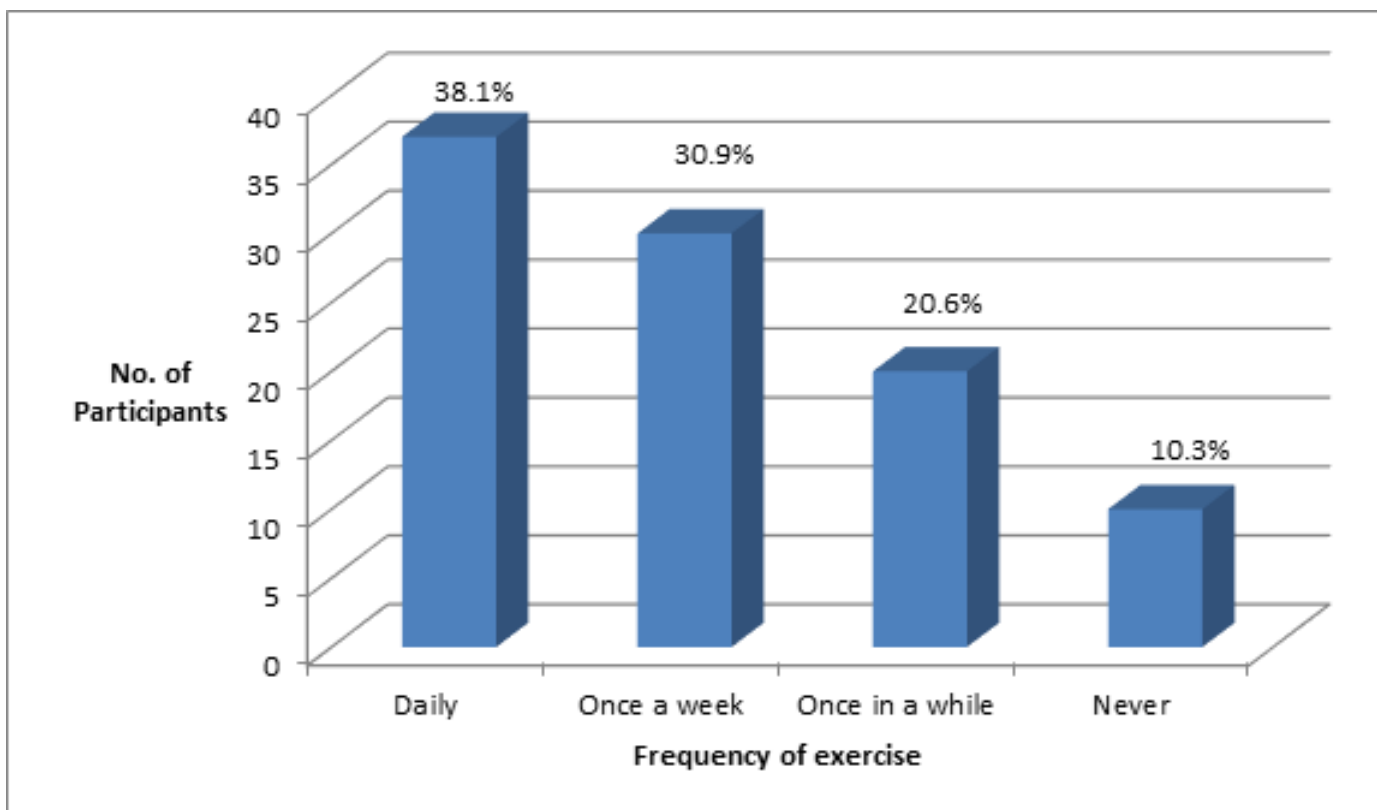


Figure 3: Results on Frequency of exercise. (n=97)

Never exercised at all.

3.4. Health system related factors associated with adherence to anti hypertensive medication.

Figure 4 shows that many of the participants 56 (57.7%) in the study reported that the health workers were welcoming, and helpful whenever they attended the hypertensive clinic, some 39 (40.2%) reported that the health workers took long to attend to them, while a small proportion; 2 (2.1%) of the respondents reported that the health workers were abusive.

Figure 5 shows that most of the participants; 41 (42.3%) in the study rated the health services offered at the hypertensive clinic as good, 35 (36.1%) participants rated them as very good, 12 (12.4%) participants rated the services fair, while 9 (9.2%) participants rated them poor.

Figure 6 shows that most of the participants; 72 (74.2%) in the study reported that they didn't obtain their medications from the hypertensive clinic of MRRH, while 25 (25.8%) participants obtained their medications from the hypertensive clinic of MRRH.

Table 5 shows that Majority of the respondents; 34 (47.2%) said that the reason they did get their medications from the hypertensive clinic of MRRH was because they're always out of stock, 21 (29.2%) participants reported that obtaining medications involved long waiting hours which they couldn't stand, 7 (9.7%) participants said that the health workers were impolite to them, while 10 (14.3%) participants had other personal reasons.

4. DISCUSSIONS:

4.1. Socioeconomic factors associated with adherence to antihypertensive medication

The research findings revealed that the majority of the patients 42(43.3%) reported that the drugs prescribed to them cost above ugshs 10,000 per week. These findings probably indicate that the majority of the drugs prescribed to the patients are expensive to afford, This is probably

because of their low-income earnings that can't allow them to support all the costs of the drugs prescribed, 23 (23.7%) reported that sometimes they got all their drugs from the health facility. This is probably because they kept time whenever they came for routine checkups whereby, they got the medications available, or because they had mild to moderate hypertension that responded to relatively cheaper hypertensive medications available in the health facility. This therefore revealed that the economic status of the patients had a lot in ensuring adherence to the prescribed medications; where patients with a stable income could easily access the medications as compared to patients with unstable income flows. These findings were consistent with a study by Lipi D, et al 2017 which revealed that the inability to buy medicines was directly associated with non-adherence.

According to the study, data analysis and interpretation revealed that the majority of the patients said that the other economic factor that affected their medication adherence was the transport fares to the hospital, as most of the patients 45 (46.4%) lived 11km and more from the health facility. These participants were probably affected by sudden weather changes such as heavy rains, coupled with poor road networks, which hindered their access to antihypertensive medication. In addition, they also missed out on important information regarding health camps organized within the hospital, which could otherwise benefit them in ensuring adherence to antihypertensive medication. As such, these factors hinder adherence to antihypertensive medication.

According to the study, data analysis and interpretation revealed that 48 (48.5%) spent above Ugshs5000 on transport to the health facility for routine checkups. These findings probably indicate that a patient's economic freedom and independence is so crucial in maintaining good adherence this is probably because the patient needs money to travel from home to the hospital. In addition, some patients reported that the purchase of food for a good diet, which is a basic need, also impacted more burden to them, as they were constrained already by other needs of life. These findings were consistent with a study by Mebrahtu,

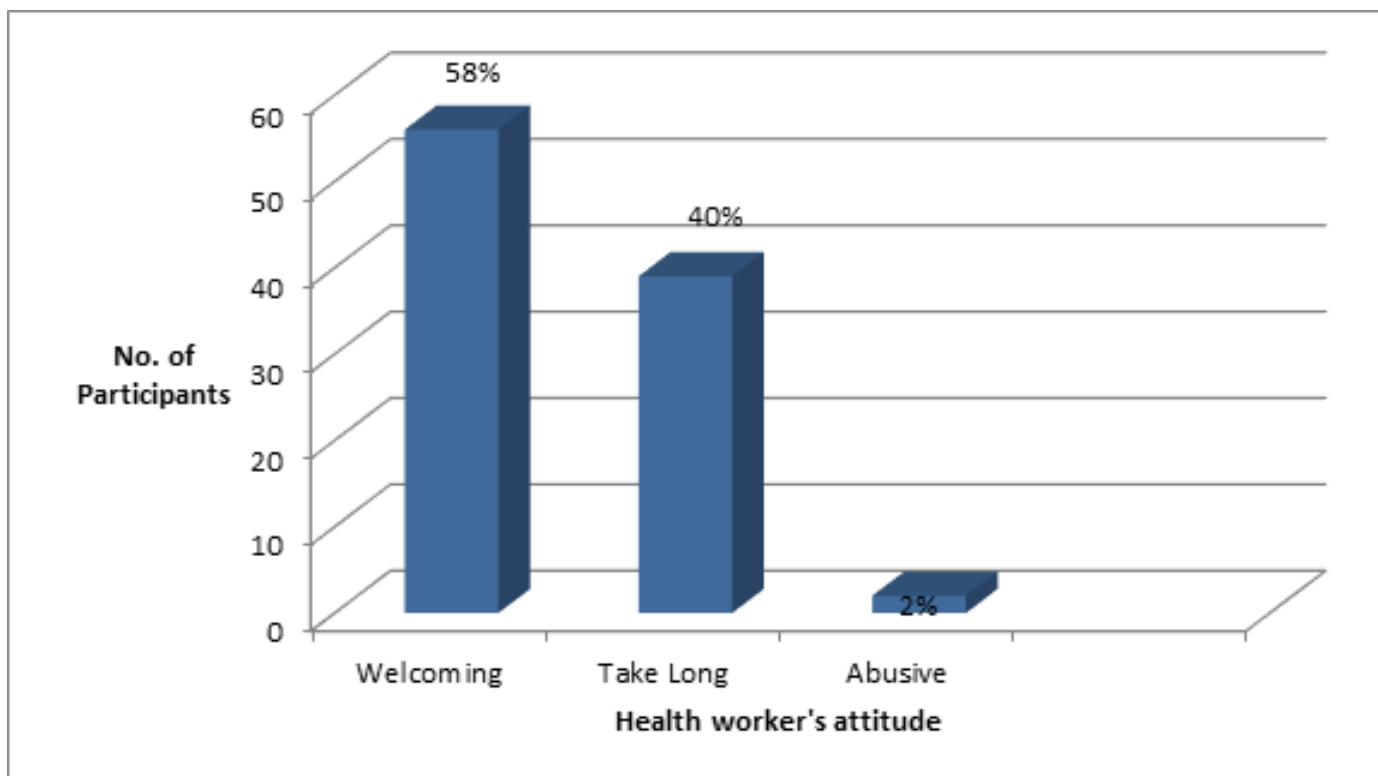


Figure 4: Results on attitude of health workers at the hypertensive clinic. (n=97)

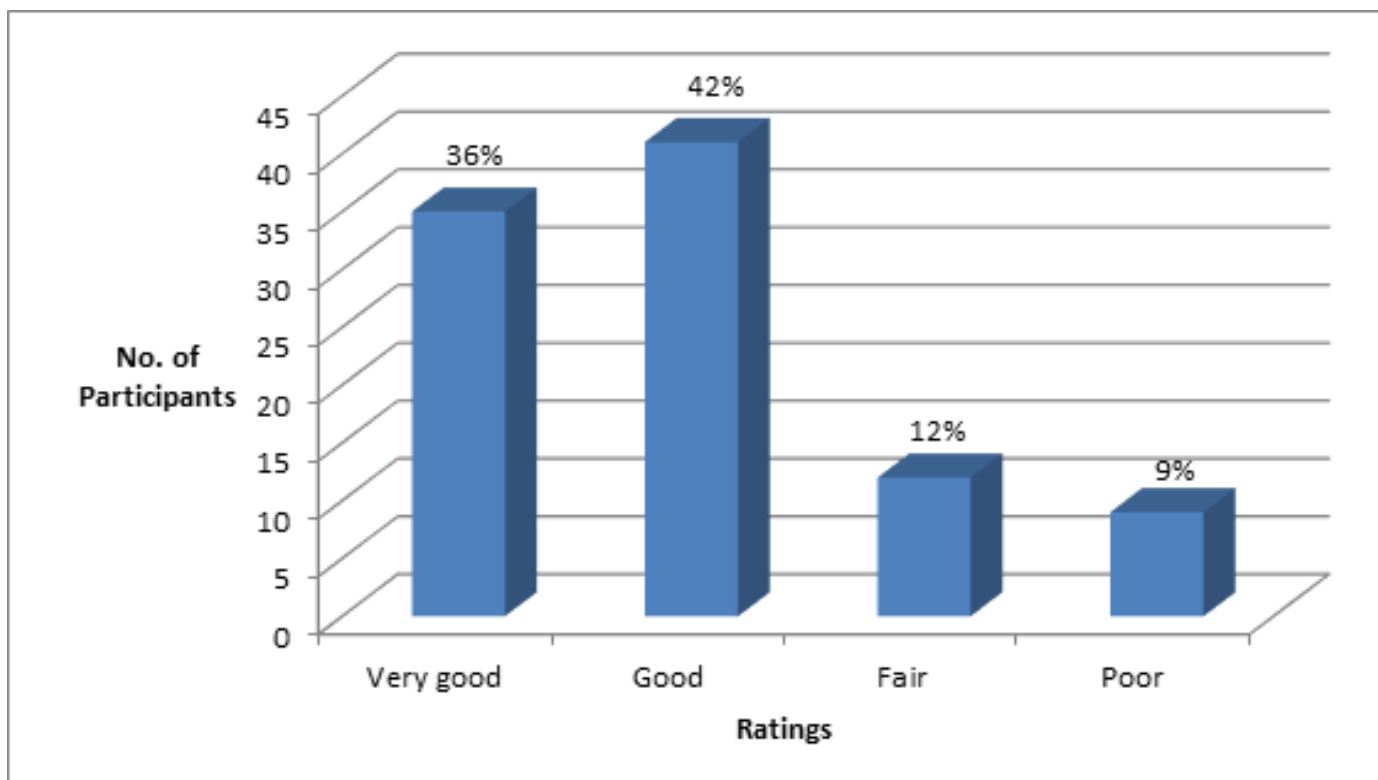


Figure 5: Results on ratings of health services provided at the hypertensive clinic of MRRH. (n=97)

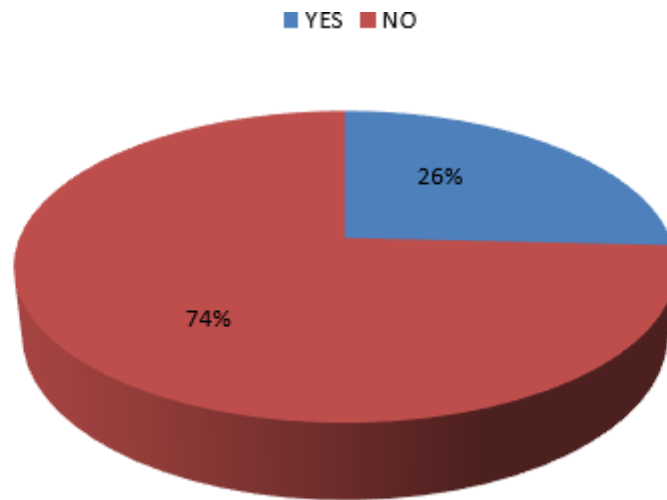


Figure 6: Results on Number of participants who get medications from the hypertensive clinic of MRRH. (n=97)

Table 5: Results on reason why some don't get their medications from MRRH (n=72)

Why NO	No. of Participants	Percentage (%)
Out of stock	34	47.2
Long waiting hours	21	29.2
Impolite health workers	7	9.7
Others	10	13.9
Total	72	100

2021 which revealed that high transport costs, long distances to health facilities, and basic needs negatively influenced the health-seeking behaviors of patients with hypertension and overall adherence

Based on the study findings, the majority of the patients 38 (39.2%) were civil servants, being salary earners, they get to be paid at the end of the month, as such, they get caught up in debt during the month when they have to purchase other basic needs of life. 16 (16.5%) of the patients reported that were unemployed and depended on only the medications provided by the health facility, and when they were out of stock they would resort to cheaper analgesics to relieve symptoms like headache. This, therefore, reveals that employment status and income status had a lot of influence on adherence to antihypertensive

medications. As such, stable income influenced adherence. These findings were consistent with a study by Charity. G 2021 which revealed that an increase in patients by one unit would increase adherence by 0.241 units.

4.2. Demographic factors associated with adherence to antihypertensive medication.

According to the study, data analysis and interpretation revealed that most of the participants 55(56.7%) reported that their families were very supportive and remind them to take their medications. This is attributed to the fact that their family members didn't want them to develop complications such as hypertensive emergencies. Stroke, heart failure among others. Their family members also hoped that the patients would at a one-time

cure the ailment if they took their medications as prescribed by the health workers.

The study findings showed that the majority of the participants 58 (60%) were female while 39 (40%) were male. These findings indicate a gap in the health-seeking behaviors between the males and females with the females being more vigilant about their health, and seeking medical attention for any ailment, as such, more women are recorded as being hypertensive. Also, these results could be attributed to the many health challenges faced by the females which range from physiological such as pregnancy, childbirth, and disorders of menstruation to social factors such as having to take care of their families sometimes independently and bearing social segregation. This is consistent with the study by Mebrahtu G. et al 2021 which revealed that males had poor adherence compared to females.

Based on the study findings, revealed that most of the participants 40 (41.2%) were married. These findings reveal that factors such as increased responsibilities that come with marriage for instance provision of basic needs, care of one's parents and in-laws, and siblings. Pressure is impacted by society on how a perfect married person should conduct him or herself. Also, the need to be a good parent to one's children comes with a lot of stress to married persons as they drop all activities that formerly brought them joy. Thus affecting their adherence. These results are consistent with the study by Goitum M 2021 which revealed that the married exhibited non-adherence.

According to the study, data analysis and interpretation revealed that most of the participants, 45 (46.4%) attained up to a secondary level of education, these were able to read and write and understood the benefits of adhering to their prescribed medications, as such these reported good adherence to their medication, a smaller percentage however reported to have never attended any school and had trouble understanding what was being communicated by the health workers who sometimes communicated to them in the English language. These results are consistent with a study carried out in Ghana by Obrikorang Y. et al 2018 which revealed that participants who had

tertiary education had significantly reduced odds of noncompliance.

4.3. Health system-related factors associated with adherence to antihypertensive medication.

According to the study, Data analysis and interpretation revealed that the majority of the respondents 56 (57.7%) reported that the health workers were welcoming and nice to them. However, a small number of the participants 2 (2.1%) said that the health workers were abusive to them. These findings reveal that health workers' attitude towards hypertensive patients is generally good, and the health workers are well-trained. This as such has helped improve adherence to antihypertensive medications. These findings were in agreement with a study by Lulebo A.M et al 2017 which revealed that adherence to antihypertensive therapy was associated with a good relationship with healthcare providers.

According to the study, data analysis and interpretation revealed that most of the participants 38 (42%) reported that the services offered by MRRH were good, this was attributed to the fact that being a Regional Referral, the hospital is well-equipped and has got several consultants who can handle most of the medical condition presented to them. In addition, the participants can access other health services such as Antenatal, ART, and Laboratory within the same hospital at little or no cost.

According to the study, Data analysis and interpretation revealed that the majority of the respondents 72(74.2%) patients said that they did not get all their medications from MRRH. While 25(25.8%) said that they got all their medications from MRRH. When the 72 respondents were asked why they didn't get their medications from MRRH, 34 (47.2%) said that they're always out of stock, 21 (29.2%) said that obtaining them involved long waiting hours, 7(9.7%) said the health workers were impolite, while 10(14.3%) had other personal reasons. These findings indicate that the majority of the prescribed drugs to the patients were not always available at the facility. This is probably because of delayed stock-

ing of these drugs commonly taken by the patients where some end up not receiving the medications because they are not available in stock, This was consistent with a study carried out by Nambi J,(2020) which said that the lack of prescribed antihypertensive drugs at the health facilities was major contributor to poor adherence among most hypertensive patients.

5. Conclusions.

The study observed that the patient's economic status played a vital role in adherence to antihypertensive medication.

The study also observed that the distance between patients' places of residence to the hospital played an important role in ensuring medication adherence.

In addition, it was also observed that family support played a major role in ensuring adherence to antihypertensive medications.

It was observed that gender also played a role in patient adherence where a majority of the males reported poor health-seeking habits, hence affecting their levels of adherence.

The study observed that the good attitude of health workers towards the patients had a great role in improving adherence to antihypertensive medication.

The study observed that the major health system-related factors affecting adherence to antihypertensive medication by the patients were the availability of the prescribed medication in the hospital facility and the patient's ability to access the hospital for reviews more than once a week.

6. Study limitations.

Time was insufficient since the study is prospective. The temporal relationship between Hypertension and the factors associated with adherence to antihypertensives was not well established. This was overcome by designing a well-fitting timetable and sticking to it at all times during the study, this helped limit any avenues of time wastage.

Some hypertensive patients refused to participate, this was overcome by thoroughly explaining

the objectives and benefits of the research to the participants.

Inadequate funds to cater for the items required for data collection, constant movements, and acquisition of a research assistant, were overcome by purchasing only the most relevant items needed for the study and walking to the study area on some occasions.

7. Recommendations.

The hospital should put up support groups among the hypertensive patients these support groups will help in the psychosocial rehabilitation of the patients and overcoming financial problems regarding access to their medication.

The government should allocate funds towards the facilitation of health workers to reach out to those patients living in hard-to-reach areas.

The hospital should organize continuous education of the patients and their family members or caretakers on the importance of adherence to antihypertensive medication and the consequences of non-adherence whenever they go for clinic appointments and assessment of the level of non-adherence to hypertensive medications should be done from time to time including educating the patients on myths surrounding hypertension and its treatment.

The government should motivate the health workers handling hypertensive patients through the provision of allowances such as lunch and transport. It should also facilitate continuous medical education regarding proper patient handling.

Healthcare workers should dispel negative perceptions surrounding hypertension and its treatment by giving health talks to patients during hypertension clinic days.

The government and partnering agencies should always ensure the timely supply of antihypertensive medicines to health facilities to facilitate easy accessibility and continuous availability of drugs to patients.

8. Acknowledgment.

First and foremost, I want to give Glory and Honor to the Almighty God who through his mercy and grace has enabled me to reach this far with my academics amidst all the challenges encountered. Special thanks to my supervisor Namutebi Florence who has guided me in planning and writing this research report despite her busy schedule and all the attention she has provided to get right this process.

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9. List of abbreviations.

ACEI : Angiotensin converting enzyme inhibitors

AHM : Antihypertensive Medication

BMI : Body Mass Index.

BP : Blood Pressure.

CHD : Coronary Heart Disease.

HBP : High Blood Pressure.

HTN : Hypertension

Kg : Kilograms.

mmHg : millimeters of mercury.

MoH : Ministry of Health

MRRH : Mbale Regional referral Hospital

NCDs : Non-communicable Diseases.

WHO : World Health Organization.

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