ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF ALLIED HEALTH SCIENCES

DEPARMENT OF NURSING AND MIDWIFERY

ASSESSMENT OF KNOWLEDGE, SELF-CARE PRACTICE AND ASSOCIATED FACTORS TOWARDS HYPERTENSION AMONG HYPERTENSIVE PATIENTS IN PUBLIC IN HOSPIT ADDIS ABABA CITY ADIMINISTRATION

BY: - SINDEW MAHMUD AHMED

A RESEARCH THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY, COLLEGE OF HEALTH SCIENCE SCHOOL OF ALLIED HEALTH SCIENCES, DEPARTMENT OF NURSING AND MIDWIFERY FOR PARTIAL FULFILLMENT OF MASTERS OF SCIENCE IN ADULT HEALTH NURSING.

MAY, 2016

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Acknowledgement

First of all, I would like to forward my deepest gratitude to Addis Ababa University for favoring all the conditions to conduct this research. Then my deepest thanks goes to my advisor SR Workinesh Sineshaw (MPH, Bsc, RN) for her valuable suggestions, advice, comments and concerns by spending her time and energy for my thesis.

And secondly I would like to thank study participants for their information. Then my deepest gratitude reach to my friends Mr Yinager Workeneh (Msc,Bsc,RN) and Ato Eskeziaw Agedew(Bsc,MPH) for their valuable and continuous comments and helping in searching literature

And finally I would like to thank Arba Minchi university and all others who helped me by providing different support for the accomplishment of the research.

Table of Contents

List of tables

List of figures

Abbreviation and Acronyms

AAU -	Addis Ababa University
BP	Blood Pressure
CHD	Coronary Heart Disease
CHF	Congestive Heart Failure
CI	Confidence Interval
CVD	Cardio Vascular Disease
DBP	Diastolic Blood Pressure
HPN	Hypertension
SD	Standard Deviation
SBP	Systolic Blood Pressure
SMBP	self-monitoring blood pressure
SPSS	Statistical Package for Social Science Research
TV	Television
UN	United Nations
WHO	World Health Organization

Summery

Background: -Patients with hypertension are at high risk of cardiovascular disease. An increase of 10 mm Hg (more than normal) in diastolic blood pressure leads to relatively increased risk of stroke and cardiovascular disease up to 37%. Moreover, hypertension may impair vision. The symptoms range from blurred vision to blindness. Since it is a chronic disease, that necessitate lifelong drug intake and changes in lifestyle. A lack of knowledge about hypertension negatively influences patients' awareness and behaviors, and is a major obstacle in controlling hypertension

Objective the general objective of the study was to assess over-all level of knowledge, self-care and its associated factors among hypertensive patients in adult cardiac and renal referral clinic in public hospitals Addis Ababa city Administration Addis Ababa Ethiopia.

Method – Institutional based cross sectional study was conducted in five public health hospitals (Yekatit 12, Ras Desta Zewuditu, Dagmawi Menilik and Tirunesh Bejing). The final sample size is 384 which was proportionally allocated to each of the institutions and systematic random sampling was used to select study units that was part of the study. Data was checked, cleaned and entered in to Epidata software, then imported to SPSS version 20.0 software for analysis. The results of the descriptive statistics were expressed as percentage and frequency. Associations between independent variables and dependent variables was analyzed using bivariate and multivariate analysis to identify factors which are significantly associated with knowledge; self-care practices among hypertensive patient who had follow up in the hospitals

Result: - Data coming from this study reveals that (43.6%) of study participants has good knowledge about hypertension. It also indicated that there is a strong association between knowledge about hypertension and educational status, family history of hypertension, place of residency and occupational status of the study participants. On the other hand, the study shows that (51.5%) of study participants has good self-care practice towards hypertension. However, there is a significant association between self-care practice and place of residency and educational status of the study participants. Study participants who has secondary and above educational status has good self-care practice than participants have no formal education.

Conclusion: - Despite the important role of knowledge and self-care practices in management of hypertension were recognized to be useful and effective in achieving hypertension control and preventing its complication, findings of this study were confirm previous findings concerning self-care among people with self-care practice was accomplished as recommended in majority respondents but knowledge was more problematic.

Recommendation: - Family members should be informed about their important roles in encouraging patients to undergo a hypertension control or self-care practices.it is also recommended that Health care personnel must increase patient's awareness toward the importance of all types of self-care practices domains and strongly promote the practice among hypertensive patients via strengthening IEC program, hypertension association.

Key words: -hypertension, knowledge, self-care practice and factors

UNIT ONE

1. Introduction

1.1 Background Information

Hypertension is defined as increase in blood pressure greater than or equals to 160/95 mmHg according to the World Health Organization (1). A more specific definition of Hypertension is a raise of 15mm of Hg pressure above the client's normal blood pressure(2).

It is categorized as "primary hypertension" which means high blood pressure with no obvious underlying medical cause and accounts 90-95%. Or. The remaining 5–10% of cases (secondary hypertension) are caused by other conditions that affect the kidneys, arteries, heart or endocrine system (3).

According to the world health report, by the year 2025 more than 1.56 billion will be suffered from hypertension as compared with the year 2000, there were 972 million people living with hypertension worldwide(4). The overall global prevalence among adults was recently estimated to be 26.6% in men and 26.1% in women. But it's prevalence varies within different countries.(5).Hypertension has now changed from a relative rarity to a major problem. "Ten million to 20 million may be affected in sub-Saharan Africa; and considered as the continent's greatest health challenges after AIDS by the African Union (6).

Despite this prevalence of hypertension in Ethiopia is not well studied. Some community-based studies have revealed that the epidemiology of hypertension in the country varies from 1.8% in the rural community15 to 30%(7).

Hypertensive knowledge is information that an individual is aware of what is hypertension is, factors that predisposes to it, the ability to identify and respond to meaning, risk factors, and preventive measures of hypertension. It is vital that the patients are given knowledge about the term hypertension and are counseled on lifestyle changes when they visit their health center(3). A lack of knowledge about hypertension adversely influences patients' awareness and behaviors, and is a major challenge in controlling hypertension (8).

Hypertensive patients need to be recognized and prevention strategies including patient education for cardiovascular disease should be implemented. However, it is not clear what the level of knowledge of hypertensive persons is regarding complication and prevention strategies(9).

People with hypertension can prevent the squeals of the disease and prevent those possible complications caused by raised in blood pressure by taking care of themselves. "Self-care refers to learned, conscious and purposeful practices, which people do for themselves, their children and their families to stay healthy and maintain their proper health, both mentally and physically, meet their social and psychological needs, prevent illness or accident. Self-care is not a substitute but a supplement, which determine how to apply professional and organizational care"(10). The self-care practices for prevention of complication of hypertension includes not taking salty foods .no smoking , and abstained from drinking any alcohol and being adherent to anti hypertension medication (11).

Self-care practices introduced in healthy behavior are vital in both the prevention and management of hypertension. But barriers to hypertension self-care and control are well studied and exist at the patient, provider and health institution levels. These barriers include lack of knowledge about the seriousness of untreated hypertension and the benefits of controlling hypertension, unemployment, alcohol and illicit drug use, cost of care and medications, drug side effects and complexity of the regimen(12).A recent report on the benefits of restoring normal blood pressure at the stage of prehypertension in a developed area. However, in a rural area, self-care intervention would be a more feasible strategy to prevent hypertension in persons at risk. Because in rular community, the most prevalent risk behavior was smoking, followed by alcohol consumption (13).

Therefore, knowledge about the patients‟ condition and information with regard to their self-care ability is vital, as patients themselves reported that knowledge about their condition and its management will be important factors in their self-care behaviors. For those living with hypertension, self-management through self-care will facilitate well-being, decrease the effects of the disease and limit disease progression(14). It is equally important that individuals (in this study, the patient with hypertension) initiate and perform on their own behalf in maintaining life, health, and well-being(8).

1.2 Statement of the problem

Despite many advances in hypertensive treatment and prevention have been made, success in blood pressure (BP) control in real-life practice has been limited, with poor rates of population BP control in the UK and other parts of the world.(15). Even hypertension (HTN) is the main risk factor for cardiovascular diseases and stroke it is not taken seriously and is not well controlled.(16) in low-income and middle- income regions hypertension accounts more than 80% of the burden of the disease is.(17)

Two Jamaican scholars opined that raise in blood pressure is the most common disease and the main cause of illness and death in Jamaica and the Caribbean(18). Recent reports revealed that BP education play a great role on increasing hypertension knowledge. Because patients who were aware that hypertension lead to reductions in life expectancy had a higher compliance level with medication use and follow-up visits than patients without this awareness(19). In study, conducted in India on 340 patients, 287 (84.41%) and 249 (73.23%) had poor score of knowledge and self -care practice of Hypertension respectively. The low score of knowledge and practice was mainly due to illiteracy, low socioeconomic class of the patients. Also, it was found that the knowledge and practice score was less in females when compared to males(17).Other study conducted on other part of India to assess the self-care practices Shows that the range of scores concerning knowledge of self-care management practices was in between 13-30, and mean score was 23.20 i.e., most of the subjects have average knowledge level regarding self-care management practices pertaining to hypertension(4).

According to the result come from university of south Africa participants' level of knowledge varied from average to high on practices related to prohibiting/preventing smoking and reducing the levels of stress respectively. However, almost equal proportions were noted of the knowledge related to restricting alcohol intake (65.2%), dietary requirements (66.3%) and physical activity in the form of exercise(20).

Studies have investigated that hypertensive patients should have good knowledge and self-care practices regarding to salt restriction, adherent to medication, engaging regular physical exercise and refrain from smoking to control their blood pressure. Thus it is vital that

counseling and assistance in embarking on a low salt diet should be an integral part of the overall(12) From the above it had been observed that knowledge and self-care practices, including inability to modifying their diet, more salt intake, inadequate maintenance of a healthy weight, smoking, and lack of getting regular exercise, is very much common in hypertensive patients in the world especially in developing country. And most people have inadequate knowledge and self-care about the seriousness of hypertension. Bearing in mind this situation and the lack of study on this area, it is necessary to assess the overall level of knowledge, self -care practice and its associated factors to treatment among patient with hypertension.

1.3 Significant of the study

To increase knowledge and self -care practice to hypertensive patients, communicating with educating and self-engagement of hypertensive patients appear to influence their self-care behavior. This study is considered necessary because it helps to early identification of hypertension related complication in patients with hypertension caused by improper self-care practices. It is also essential for community, to counsel and educate patients about the importance of proper self-care behavior and the necessity of medication compliance. It will benefit the local health official specifically those who are managing patient with the problem to educate, invoke and cooperate with their clients to improve knowledge. It helps patients to increase knowledge and self-care practice towards hypertension and its associate factors for hypertension complication. It will be bases for further research on the importance of knowledge and a change of patient beliefs in level of self-care among patient with hypertension. It will contribute a lot for the target grouped by implying the need for life style adjustment and some modification in habits, work, the need to compliance with therapy and most effectively the self-care activities and beliefs that have significant impact on the re-hospitalization and associated psychological, social and physiological impairment.

UNIT TWO

2. Literature review

2.1 Introduction

Hypertension is the silent killer diseases worldwide and is a major risk factor for many other diseases like cardiovascular diseases, stroke, renal diseases, and many others. They are also the most important reasons to visit the physician (21). The 8th Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High BP (JNC-8) reports that it affects 1 billion people worldwide A 55 year normotensive person has up to a 90% lifetime risk of developing hypertension and it is the number one reason listed for office visits and also causes/contributes to 457,000 admissions per year and a leading cause/contributor to death (myocardial infarction, stroke, vascular disease(22). Hypertension is an important public-health challenge worldwide. Prevention, detection, treatment, and control of this condition should receive high priority (23). Hypertension is one of the most important cardiovascular risk factor but its control is still a challenge all around the world. Control Hypertension, an iceberg disease could be described as the „sleeping snake"- which bites when it wakes up. (20) There has been a wide range of prevalence of hypertension around the world (24). It has been estimated that almost a third of B.P. – related deaths occur from coronary heart disease. It is also estimated that a 3 mm Hg reduction in systolic B.P. could lead to an 80% reduction in stroke mortality and a 5 percent reduction in mortality from coronary heart disease Lifestyle(25).

Hypertension progressively and permanently damages target organs, leading to life-threatening complications and death chronic diseases, such as hypertension, necessitate lifelong drug intake and changes in lifestyle. A lack of knowledge about hypertension negatively influences patients' awareness and behaviors, and is a major obstacle in controlling the disease(8).

Knowledge, Awareness and Self-Care Practices of Hypertension incorporates able to defined as high blood pressure., know that top measurement of blood pressure was referred to as systolic and recognized normal systolic blood pressure to be less than 140mmHg, able to consult their doctor for hypertension once or twice in a month. Risk factor for high blood

pressure should be identified by the participants such as too much salt intake, sedentary way of life etc (26).

2.2 Knowledge of patients towards hypertension

Knowledge is facts, information and skills acquired through experience or education that moves towards the theoretical or practical understanding of the subject(14). A descriptive study conducted to assess the up-to-date information on knowledge, awareness and self-care practices of HTN among cardiac hypertensive patients in Karachi. Found that the knowledge of cardiac hypertensive patients in general is inadequate. The patients are not informed about recently recommended guidelines, cutoff values of SBP and association of their SBP levels with cardiovascular disease. Consequently, 48% of the patients could not recall their BP value and were unable to report whether their BP value is elevated or normal (26).

Another survey conducted in Asia demonstrates that 70% hypertensive patients in the sampled population having awareness about their disease. There were, however, knowledge deficits identified, including the definition of a normal blood pressure and hypertension has a lifelong duration(21).

A study in New York, suggest that most of the sample of hypertensive patients were knowledgeable about the meaning of HTN and the seriousness of the condition to their health. When asked more specific questions about BP, patients were less knowledgeable. Thirty-four percent of patients correctly identified SBP as the ‘‘top’’ number of their reading; 32% correctly identified DBP as the ‘‘bottom’’ number; and, overall, only 30% of the patients were able to correctly identify both SBP and DBP measures. Patients were generally unaware that SBP is important in BP control; when asked which measure is more important, 41% reported that diastolic is more important, 13% reported that systolic is more important, while 30% reported that both systolic and diastolic are important, and 17% did not know. Thirty-nine percent did not know the normal level for SBP or reported that normal SBP is 140 mm Hg or greater. Conversely, more than 69% of patients identified normal DBP as less than 90mmHg. Patients were knowledgeable about the cut point for DBP with only 8% reporting that 90 mm Hg or greater was normal(19).

Research in Pakistan on Knowledge, awareness and self-care Practices of hypertension among Cardiac hypertensive patients in relation to hypertension risk factors and complications. Risk

factor most commonly identified by the participants was too much salt intake Heart attack and stroke as a complication was recognized by 374 (56.3%) and 185 (27.9%) participants, respectively(26).

Research in Malaysia to assess knowledge on Self-blood pressure monitoring among hypertensive patients demonstrate that , 40 (61.5%) respondents were able to recall their recent blood pressure and 44 (67.7%) were aware of the target blood pressure, which showed that the majority of the respondents are interested in their blood pressure readings(27).

Research on knowledge and lifestyle practices of hypertensive patients attending a primary health care clinic in Botswana Zungu reveals that the level of knowledge varied from average to high as almost all of them 96.4% and 96.6% gave a correct response for practices related to prohibiting/preventing smoking and reducing the levels of stress respectively. However, almost equal proportions were noted of the knowledge related to restricting alcohol intake (65.2%), dietary requirements (66.3%) and physical activity in the form of exercise(28).

Study in India on Assessment of KAP , Risk Factors and Associated Co-Morbidities in Hypertensive Patients .shows; dizziness was the most common symptoms while a heart problem was most common complication known to patients(20).

Crossectional study in Nepal shows that More than half (56%) of hypertensive patients were aware about the meaning of hypertension and 58% thought that the most common age group susceptible for hypertension is middle age group (40 to 59yrs). Regarding the reason of hypertension 34% thought that it is due to hereditary and stress. Another 34% thought that it is due to all the reasons like age, obesity, smoking, alcoholism, stress and hereditary factors. Most of them (84%) were aware about sign and symptoms of hypertension(29).

Community based study in Thailand reveals that Almost half of the participants responded that they had never heard of hypertension, more than 80% answered that they did not fully understand what hypertension was, 97% did not know if they had high blood pressure, 91.96% did not notice whether their relatives had hypertension, and 95% thought they were not at risk of hypertension(13).

Research in Nigerian community suggests that majority 98 (90.70%) felt that the presence of HTN indicated serious morbidity because of dangerous complications e.g. stroke, 10 (9.3%)

did not feel so While 45 (42%) knew some of the risk factors such as excessive alcohol consumption, smoking or obesity, 63 (58%) did not know. Though 80 (74%) attested to the fact that HTN is correctly detected by BP measurement usually in a health facility, 28 (25.9%) did not attest. Of this 28 respondents, 16 (15%) were told by the traditional healers that they were hypertensive and 12 (11%) first believed they were hypertensive from what they learnt from friends / relatives or electronic and print media(5).

Another study in India Suggests that study subjects had knowledge deficits identified, including the definition of a normal blood pressure and hypertension has a lifelong duration, most of the patients depend upon their cardiologist for the information about hypertension. The results of the study point out that without education, patients' level of knowledge about the cause, treatment and application of the hypertensive drug were inadequate(21).

Health literacy survey in rural Areas of China about hypertension knowledge shows that Only a small proportion of respondents correctly answered questions about hypertension complications (i.e., 36.5% for stroke, 38.9% for heart attack, 18.0% for kidney disease and 27.9% for eye disease among hypertensive respondents (30).

Study in metropol of Ghana to assess knowledge, attitudes and lifestyle practices of hypertensive Patients reveals that knowledge on the causes of the condition was not left out. Similarly, 295 (73.8%) knew that stress could lead to hypertension. About 73% of the participants did not know that lack of physical activity could increase one's risk of acquiring hypertension as well as drinking too much alcohol (67.8%). In addition, only few of the participants (27.5%) knew that cardiovascular diseases could occur as a result of this condition or hypertension. For signs and symptoms of hypertension, it was observed that majority of the participants (n=348; 82.1%) mentioned that the condition had no signs and symptoms, while the remaining (n=71; 17.9%) correctly pointed out that hypertension had several signs and symptoms. Some of the signs and symptoms identified included headache and dizziness, fainting and stroke. The main signs and symptoms of the condition specifically mentioned by the participants were headaches or dizziness and stroke while minimal knowledge on the consequences of untreated hypertension was shown(31).

A hospital-based cross-sectional survey in southwest Ethiopia on Prevalence of hypertension and its risk factor shows that only 15 (44.1%) of previously known hypertensive patients had

their BP controlled at the time of study. Putting these all together, the overall knowledge of hypertension was 35.1%, and the rates of hypertension treatment and hypertension control were 23.7% and 15.5%, respectively (31,7).

2.3 Self-care practice of hypertensive patients

self-care is the process of engaging individuals to take full responsibility of managing aspects of their health by adopting skills and behaviors that prevent disease, limit illness and restore health(14). Self-care practices for hypertension includes taking medicine as prescribed, monitoring blood pressure response to therapy, and adopting lifestyle recommendations increasing exercise, decreasing salt intake. (29).

Study in India on assessment of KAP, risk factors and associated co-morbidities in hypertensive Patients shows most of the patients not doing blood pressure measurement and eye check-up regularly. BP measurement in hypertensive patients should be ideally at 15 days' interval or at monthly interval. hypertensive patients should examine their eyes either at yearly or two yearly intervals(20).

Another study in Nepal reveals that 80% of study subjects had the habit of doing self-care related to their own disease, were not smoker and almost 84% did not have habit of taking alcohol. Most of them (74%) had habit of taking low salt and low fat diet. More than half (64%) had habit of doing regular physical exercise and 62% were using different measure to reduce stress? Similarly, 92% of them were taking their medication regularly but some of them (10%) were changing their doses of their medication by themselves. Thirty percent of them were discontinuing their medicine anytime. It was very good practice that 70% of them were doing regular follow up, and 74% were checking their blood pressure regularly(29).

The study in India to assess knowledge and life style factors of hypertensive patients about 63 per cent were regular exercisers while others did not do any kind of exercise (37.00 %). Similar trend was followed in males (66.60 %) and females (60.00 %). The reasons quoted for not exercising: lack of time due to busy schedule, pain in the feet and joint lack of interest in exercising. Brisk walking was the only form of exercise in both males and females(32).

Institutional based study in Thailand shows that only 3.72% of study subjects reported a sedentary lifestyle and nearly 70% of the population was smokers. The smoking rate was

76.23% in males and 61.93% in females. More than half of the population consumed alcohol (61.48% males and 40.91% females)(13).

One hospital based study in Pakistan on knowledge, awareness and self-care practices of hypertension among cardiac hypertensive patients show, (69.1%) of study subjects claimed to check it regularly with most of them checking monthly, (35.2%). (51.7%) patients get their blood pressure checked at the nearest health care facility. (82.2%) do not have a sphygmomanometer at home and (33.1%) of them reasoned that they did not feel the need to have it. Most of the patients, 265 (39.9%), consulted doctor of hypertension every 3-6 months and 180 (27.1%) consulted their cardiologist more than every 12 months. Majority of the participants, 213 (32.1%) get their ECG examined more than every 6 months and 239 (36%) get their cholesterol checked more often than every 6 months. Taking medication was the single most important practice carried out by most of the cardiac hypertensive patients (26).

Population based study in Southwestern Nigerian shows that only 18.6% of participants were on BP lowering medications and 6.7% had access to home monitoring devices. Except for low dietary salt intake in 50.8% of self-reported hypertensive, the use of non-pharmacological interventions was generally low in their management. None of them was enrolled in a smoking cessation programme; neither of them were on statins since blood cholesterol had never been measured in any of them(33).

Health facility based study in Botswana on knowledge and lifestyle practices of hypertensive patients regarding the acceptable lifestyle practices for persons with hypertension, the results showed that only 37% of the participants scored greater than 75% and cumulatively 59% can be rated as having acceptable knowledge of lifestyle practices in relation to their chronic disease(28).

A Population based prevalence of high blood pressure among adults in Addis Ababa: uncovering a silent epidemic shows that more males (12.5%) than females (9.4%) reported that they add salt to their plate after food has been served. Overall, 10.7%, 95% CI (9.7, 11.6) adults reported regularly adding salt to their plate(34).

2.4 Associated factors that affect knowledge towards hypertension

studies in Israel suggest that knowledge transferred from medical staff is an important factor in inducing patients to comply with lifestyle re commendations to control hypertension (35).

Study in Rular Chaina demonstrated that hypertension knowledge levels were associated with marital status, education, health status, periodically reading books, newspapers or other materials, history of blood pressure measurement, and attending hypertension educational sessions provided by clinicians. (30).

Study in Cape Coast reveals that the low score for knowledge was mainly due to illiteracy and low socioeconomic class of the patients. Also, it was found that the knowledge score was less in females when compared to males. It suggests that patients are generally knowledgeable about hypertension but that knowledge is usually not comprehensive especially in terms of specific factors that relate to their condition and good control of blood pressure condition and good control of blood pressure. They found patients with high school education significantly more likely to understand normal blood pressure value (36).

Study in sub-urban Nigerian community suggest that a reasonable number of respondents currently on antihypertensive therapy, perhaps due to their poor educational background, still believed that HTN could be caused by evil spirits, enemy remote attacks, or food poisoning. Sadly the majority (89%) of the hypertensive, the educated and illiterates inclusive, were unaware of the symptomless nature of the disease (5).

A study in Botswana Zungu reveals that there was a significant relationship between number of children and knowledge of hypertension this implied that the knowledge of hypertension increased with an increase in the number of children. This could be explained by the fact that pregnant women are questioned about a family history of hypertension during antenatal clinic visits or they could have experienced pregnancy induced hypertension during each pregnancy and subsequently received adequate health education related to the disease(28).

2.5. Associated factors that affect self-care practice towards hypertension

Study in India show that there was a significant association between self-care management practices with sex and bad habits of the research subjects but no significant association with their age, educational status, marital status, diet consumed, medications followed and previous knowledge regarding self-care management(23).

Study Saudi Arabia reveals that interpersonal communication process in the patient-physician relationship has a potentially positive impact on patients' health outcomes, physicians usually do not ask their patients about medication-taking behavior or may use ineffective

communication approaches (35).It is argued that non-collaborative communication on the part of healthcare providers result in poor patient adherence to antihypertensive treatments, poor life style modification, refrained from risk factors for HPN and not recognizing the complication of hypertension (35).

Another Crossectional study in Malyasia indicates that SBPM requires careful training on blood pressure measurement, instruction on recording and interpretation of blood pressure reading. This shows that self-care practice is associated with knowledge towards hypertension (27).

Study Korea suggested that social support is consistently related to adherence to medications ,exercise and diet, and it might have beneficial effects in buffering the stress experienced due to chronic disease such as hypertension (37).

Community based study in India reveals that the reasons for intentional non-adherence are less straightforward and include problems experienced as a direct result of taking medicines (such as adverse drug reactions), inability to pay for medicines, disagreement with the need for pharmacological treatment, or other patient-specific issues associated with complex behavioral characteristics (3).

Study in Gahan showed that People tend to walk more in rural settings than urban settings because the distances between places are shorter and there is less public transport unlike in urban areas where people travel long distances and cannot do without transport. This shows that self-care practice is associated with place of residence (36).

The reasons for intentional non-adherence are less straightforward and include problems experienced as a direct result of taking medicines (such as adverse drug reactions), inability to pay for medicines, disagreement with the need for pharmacological treatment, or other patient-specific issues associated with complex behavioral characteristics (3).

One clinical based study in Botswana Zungu suggests that knowledge is a critical determinant of behavior change and lifestyle practices. Other factors are critical in translating this knowledge to actual practices. The social, economic and environmental factors are also important. Raised knowledge through health education and health promotion heavily

influences lifestyles change, which means that people should adapt to behaviors or lifestyles that help them maintain an optimal health status(28).

Hospital based survey in South Africa suggests that many factors may contribute to poor level of self-care practice among hypertensive patients which are not limited to perceived benefit of exercise, level of education, access to recreational facilities and neighborhood environment(38).

Study in Egypt showed that young and middle aged adults had significantly higher self- care practice as compared to older one. Because cognitive impairment usually occurs in old parsons and this affect their capability to communicate and understand the guidelines(39).

Information coming from study conducted Gondar Hospital , Northwest Ethiopia The multivariate logistic regression showed that as the distance from the hospital decreased, the adherence to treatment of HTN got improved that mean hypertensive patients near to the hospital had god self-care practice (40).

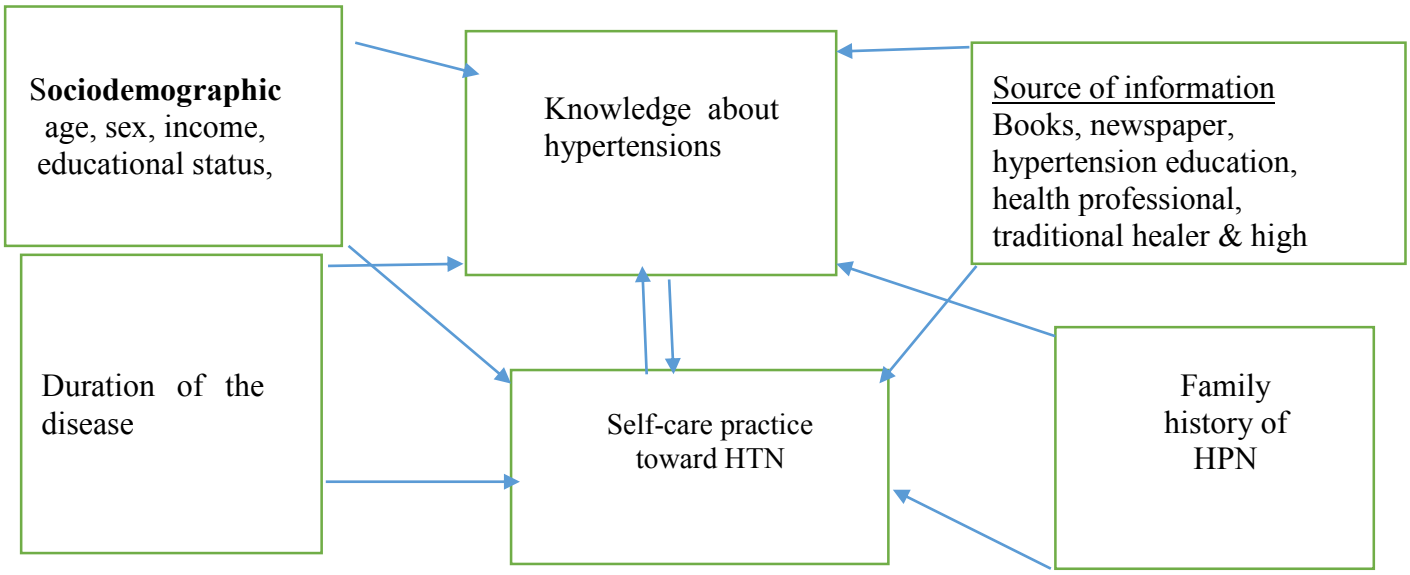

Figure 1 Conceptual frame work indicating factors related to Knowledge and self-care practice towards hypertension.

This conceptual frame work is developed after through literature review

UNIT THREE

3. Objective

3.1 General objective

To assess level of knowledge, self-care and its associated factors among hypertensive patients at public hospital of Addis Ababa Ethiopia 2016 G.C.

3.2 Specific objectives

- To assess level of knowledge about hypertension among hypertensive patients at public hospital.in Addis Ababa
- To examine self-care practices among hypertensive patients at public hospital.in Addis Ababa
- To identify associated factors of self-care practice among hypertensive public hospital.in Addis Ababa.
- To determine factors affecting knowledge about hypertension among hypertensive patient in public hospital.in Addis Ababa

UNIT FOUR

4. Methods and materials

4.1. Study area and period

Based on the 2007 Census conducted by the Central Statistical Agency of Ethiopia (CSA), Addis Ababa city has a total population of 3,384,569. It lies at an altitude of 7,546 feet (2,300 meters). The City has surface area of about 530.14 km2. Languages spoken include Amharic (71.0%), Oromiffa (10.7%), Gurage (8.37%), Tigrigna (3.60%), Silt'e (1.82%) and Gamo (1.03%). (66). There are a total of 41 hospitals in the city, of which, 6 of them are public administered by the city. This study involves the 5 public hospitals as they give hypertension follow up services. The study was conducted in chronic follow up units of Zewuditu, St. Yekatit, Ras Desta, Tirunesh Bejing and Dagmawi Menilik, from February to June, 2016

4.2. Study design

Institutional-based cross sectional quantitative study was conducted.

4.3. Source of population

All hypertensive patients in Addis Ababa Ethiopia.

4.4 study population

All hypertensive patients who are on follow up at public health hospitals in Addis Ababa City administration Addis Ababa Ethiopia.

4.4 Study units

Selected patients who fulfill the inclusion criteria and was available during the time of data collection.

4.5. Inclusion criteria

A patient included in the study if he or she is 18 years of age or older and made follow up for at least 6 months.

4.6. Exclusion criteria

- Patients with mental health problems, hearing impairments or any other serious health problems and those patients who was unable to provide the appropriate information was excluded.

4.7. Sample size determination

The size of study participants that was recruited in to the research is calculated using the single population proportion formula.

$$N=\frac{za/2^2(p(1-p)}{d^2}$$

After comparing p – values for age related factor, self-care practice, educational related factors, source of information factors and knowledge about hypertension, sample size is calculated considering a p-value of 0.779 (to get the largest sample size level of confidence of 95%, and margin error 5%

Where p - Proportion of patient s who had knowledge q- Proportion of patients who don't have knowledge d^2-margin of error, N- minimum sample size. Substituting the values for each of these variables in the above formula, the sample size is estimated to be 349. Adding non response rate of 10%, the final sample size is 384

4.8. Sampling procedure and techniques

There are 5 public health hospitals that give chronic follow up services in Addis Ababa city. Out of these, all are selected. The study was conducted on public health hospitals" chronic follow up units. The number of study units for each unit was proportionally allocated and those who was part of the final sample size was selected using systematic random sampling (based on the number of patients coming per month.

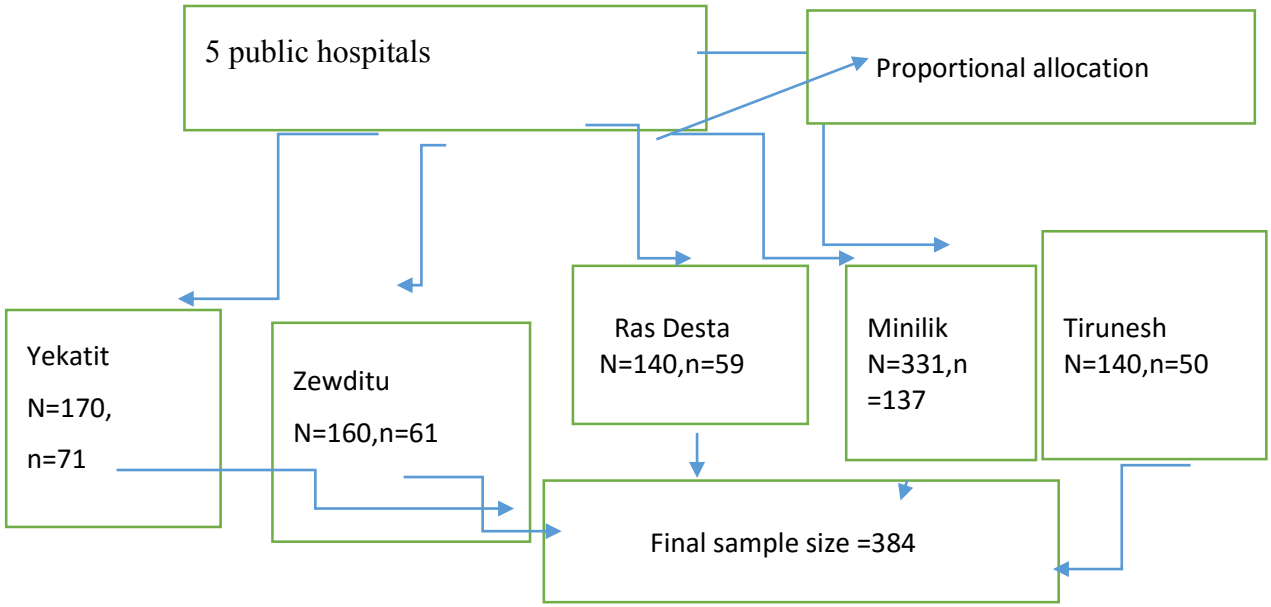

Figure 2 Schematic presentation of sampling techniques used to select study subjects from public health hospitals in Addis Ababa, 2016

4.9. Study variables

4.9.1 Independent variables:

- ✓ Socio-demographic characteristics,
- ✓ Age of hypertensive onset,
- ✓ Duration of the disease,
- ✓ Family history of hypertension
- ✓ Complications of hypertension,
- ✓ Source of information
- ✓ Income
- ✓ Risk factors for hypertension

4.9.2 Dependent variable

- ✓ Knowledge towards hypertension
- ✓ Self- care practices of the patients

4.10. Operational definitions

Knowledge: - an idea by which hypertensive patients had about definition, risk factors, sign and symptoms, effect, diagnostic methods and treatment of hypertension.

Self-Care-Practice: - an activity conducted by hypertensive patient towards their illness includes, diet, exercise, medication adherence, self-blood pressure measurement E.T.C

Good knowledge: - Knowledge score that fell above mean out of 32 knowledge questions (40)

Poor knowledge: -Knowledge score below mean out of 32 knowledge questions

Physical activity: The minimum physical activity level was determined as 30 minutes, moderate activity for at least 3 days per week.

Good practice: - Practice score above the mean out of 21practice questions

Poor practice: - Practice score below the mean out of 21 practice questions

4.11. Data collection procedure

Structured interviewer administered questionnaire was used to collect data on knowledge, self-care practice and associated factors. All the questions are prepared in English and was translated to the language of Amharic by experts‟ who are fluent by both language and back translated to English to see its consistency.

4.12. Data Collection Tool

Interviewer administered structured questionnaire data collection tool was used, it contains three parts. Part I was used to collect socio demographic data, part II was used to collect knowledge about hypertension and part III is a self-care practice, which was used to measure areas or domains of hypertensive knowledge and self-care practices: general diet, specific diet, exercise, medication and self-blood pressure monitoring. Knowledge about hypertension was assessed by requesting the respondents to answer thirty-one questions. Each correct response was scored [1] and incorrect response was scored [0]. The mean value was used to categorize study subjects as having good knowledge or poor knowledge about hypertension. Accordingly, the sum value less than the mean was categorized as poor knowledge and the value greater than or equal to the mean was categorized as good knowledge. Self-care practice about hypertension was also assessed by requesting the respondents to answer twenty-one questions. Each correct response was scored [1] and incorrect response was scored [0]. The mean value was used to categorize study subjects as having good self-care practice or poor self-care practice about hypertension. Accordingly, the sum value less than the mean was categorized as self-care practice and the value greater than or equal to the mean was categorized as good self-care practice.

4.13. Data quality Assurance

Both the data collectors and supervisors was trained for half day on the objective and methodology of the research, data collection approach. The questionnaire was translated to Amharic language and back translated into English by another person to check for consistency. Pretest was conducted in 10% of the samples in a health care institution that was included in the survey to see the completeness, consistency, and applicability of the instruments and was ratify accordingly. Survey procedures was designed to protect the patient's privacy by allowing for anonymous and voluntary participation.

4.14. Data processing and analysis

Data was checked, cleaned and entered in to Epidata software, then imported to SPSS version 20.0 software for analysis. Incomplete and inconsistent data was excluded from the analysis. Descriptive statistics was used to describe the sample. The results of the descriptive statistics were expressed as percentage and frequency. Associations between independent variables and dependent variables was analyzed first using bivariate analysis to identify factors which are significantly associated with the outcome variable. The magnitude of the association between the different independent variables in relation to dependent was measured using odds ratios and 95% confidence interval (CI) and P values below 0.05 was considered statistically significant.

4.15. Ethical consideration

Ethical clearance and official letter was obtained from the Research and Ethics Committee of School of Nursing and midwifery of AAU to the selected public health hospitals. After getting permission from the Addis Ababa health burro. The health burro write latter for respective Hospitals. Again permission was obtained from respective Hospitals. verbal and written consent was obtained for willingness of patients to participate. The patients‟ privacy was maintained by conducting the interview in a private place. They were informed that there is no any incentive or harm for their participation in this study. Finally, participants‟ identity was kept anonymous during data collection and analysis.

4.16 Dissemination plan

The final result of this research will be presented to the community of School of nursing and midwifery of AAU and disseminated to the school library and respective hospitals. Finally, it will be published in peer reviewed journals for further utilization

UNIT FIVE

5. Results

5.1. Socio-demographic characteristics of respondents

Out of the total three hundred eighty-four sampled hypertensive patients in public Hospitals of Addis Ababa city administration, three hundred sixty-nine of them were included in the study giving a response rate of 97 percent. The mean age of respondents was 57 ±13, most of the respondents 205(55.6%) were within 41- 60 age group. Majority of the respondents 195 (52.8%) were civil servants. Of the 369 respondents, 67 (18.2%) were diploma educationally. The majority of the study subjects, 239 (64.8%) were lived in rular area. The majority of the study participants, 243 (65.9%) were married, 178(48.2%); get monthly income of greater than 1000 Ethiopian birr, and 69(18.7% of respondents earn monthly income less than 500 Ethiopian Birr. Of 369 respondents 303(82.1%) had no habits such as smoking, alcohol consumption etc. Overall, the median average monthly income of the respondents was between 500 and 1000 Ethiopian Birr. Regarding family history of hypertension large proportion of the study subjects 188 (50.9%) had no family history of the diseases. The majority 186(50.4%) of the respondents get health information from health professional.

Table 1 Socio-demographic characteristics among respondents in public Hospitals, of Addis Ababa city administration central Ethiopia, April, 2016. [n=369]

Variable	Frequency	Percent
Sex		
Male	186	50.4
Female	183	49.6
Occupation		
Farmer	29	7.9
House wife	48	13.0
Merchant	96	26.0
Civil servant	196	53.1
Age		
<40	30	8.1
41-60	205	55.6
61-80	121	32.8
81-99	13	3.5
Place of residence		
Rular	239	64.8
Urban	129	35.2
Educational status		
Illiterate	58	15.7
Primary	118	32.0
Secondary and above	193	52.3
Marital status		
Single	31	8.4
Married	243	65.9
Divorced	33	8.9
Widowed	62	16.8
Income		
<500	69	18.7
500-1000	122	33.1
>1000	178	48.2
Habit		
Smoking	15	4.1
Alcohol	51	13.8
None	303	82.1
Family history of hypertension	181	49.1
Yes		
No	188	50.9
Source of health info		
Family member	69	18.7
Mass media	114	30.9
Health professional	186	50.4

5.2 knowledge of hypertensive patient about hypertension

Of the 369 respondents 271(73.4%) defined the normal range of blood pressure is less than 140/90 mmhg. 6(1.6%)and 92(24.9%) of the respondents responds that I don't know and call numbers that is greater than 140/90 mmhg.

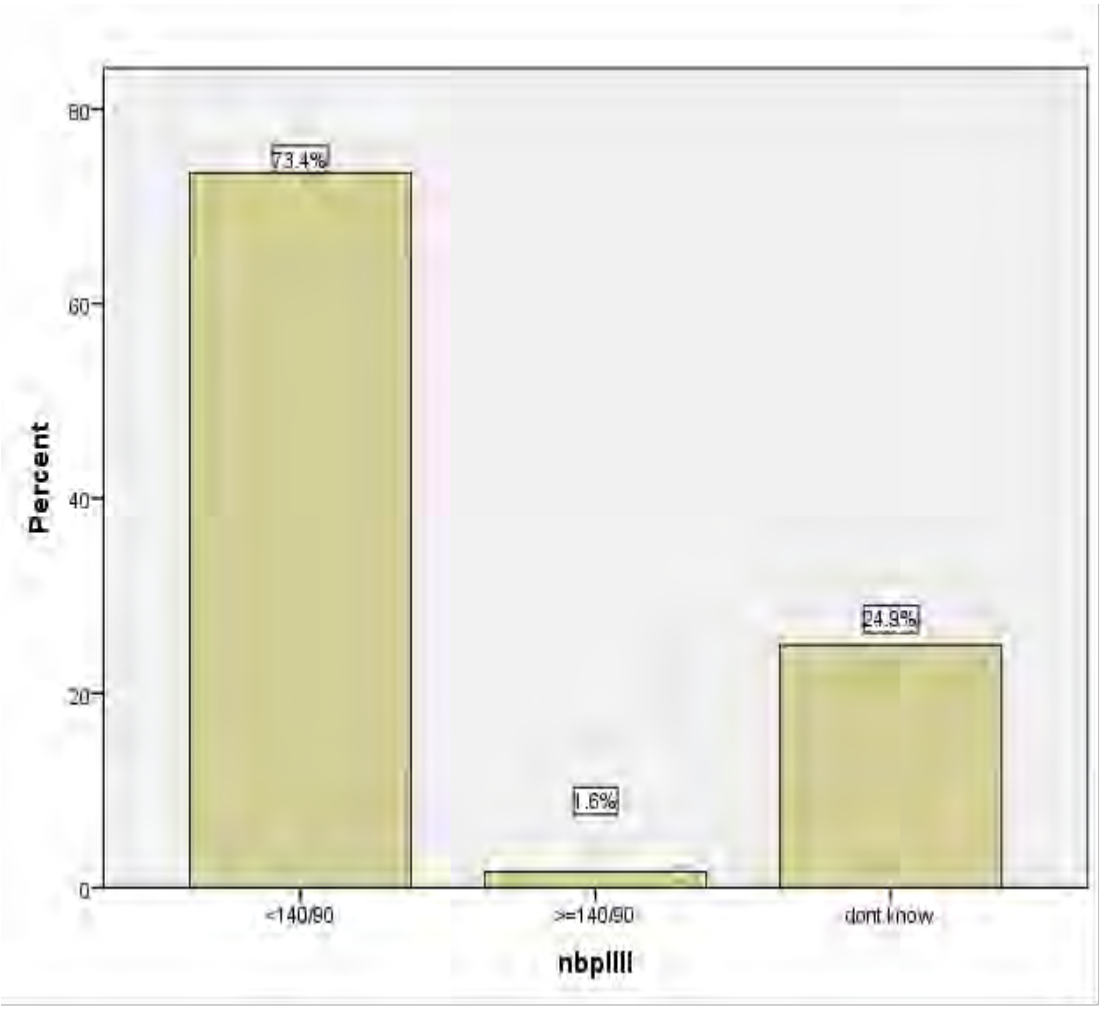

Figure 3 Respondent's response to what is the normal blood pressure in public hospitals of Addis Ababa city Administration Addis Ababa Ethiopia. {N=369}

Of the 369 respondents 173(46.95) define hypertension as blood pressure greater than or equals to 140/90 mmhg whereas the rest 132(35.8%)and 64(17.8%) of the respondents responds that I don't know and call numbers that is less than 140/90 mmhg.

Figure 4 knowledge about definition of hypertension respondents in public hospitals of Addis Ababa city Administration Addis Ababa Ethiopia 2016 G C.{n=369}

Of 369 respondent's majority 268(72.6%) believed that stress is the risk factor for hypertension. whereas the rest of the respondents 197(72.6) and 181(49.1%) of respondents believed that heredity and age are risk factors for hypertension respectively.

Table 2 knowledge about risk factors for hypertension in public hospitals of Addis Ababa Ethiopia April 2016 G C

Risk factors for hypertension		Responses	
		N	Percent
	Stress	268	43.2%
	Age	181	29.1%
	Hereditary	172	27.7%
Total		621	100.0%

Of the 369 participants about 339(92.1%) of the respondents believed that head ache is the symptom of hypertension. Majority of the respondents 329(89.4%) believed that nausea is not the symptom displayed by hypertensive patients. Whereas 293(79.6%) of the were not believed that dizziness is not the compliant of hypertensive patient. Of 369 respondents 29 participants didn't know the sign and symptom of hypertension.

Table 3 knowledge about sign and symptom of hypertension among hypertensive patients in public hospitals of Addis Ababa city Administration Addis Ababa Ethiopia April 2016. {n=369}

Sign and symptom of hypertension	Response	Frequency	Percent
Head ache	Yes	339	92.1
	No	29	7.9
Dizziness	Yes	75	20.4
	No	293	79.6
Nausea	Yes	39	10.6
	No	329	89.4
Don't know	Yes	29	7.9
	No	340	92.1

Of the 369 participant's majority 210(56.9%) responds that evidence for target organ damage is due to damage of the kidney.103(28.5%) had no information about target organ damage by hypertension. The 36(9.8%),12(3.3% and 6(1.6%) says that target organ damage is evidenced by liver dysfunction, respiratory and GI dysfunction respectively.

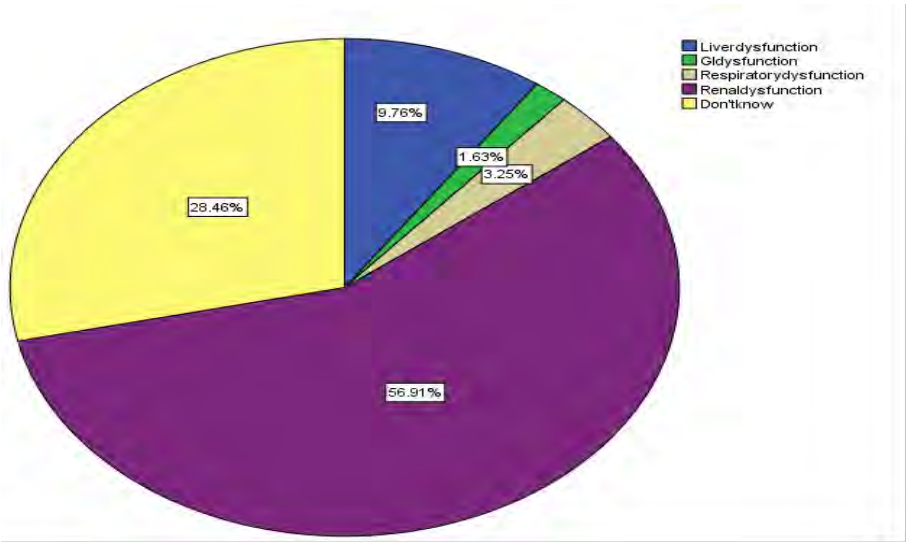

Figure 5 Knowledge about target organ damage by hypertension among hypertensive patients in public hospitals of Addis Ababa city Administration April 2016 Addis Ababa Ethiopia. {n=369}

Of the total participants about 136(36.9%) responded that hypertensive patient should take rest after doing all kind of work.127(34.4) of the participants replied that hypertensive patient should take res in between activities. Whereas the rest 61(16.5%) and 21(5.7%) of the respondents replied that complete bed rest and no need of rest respectively.

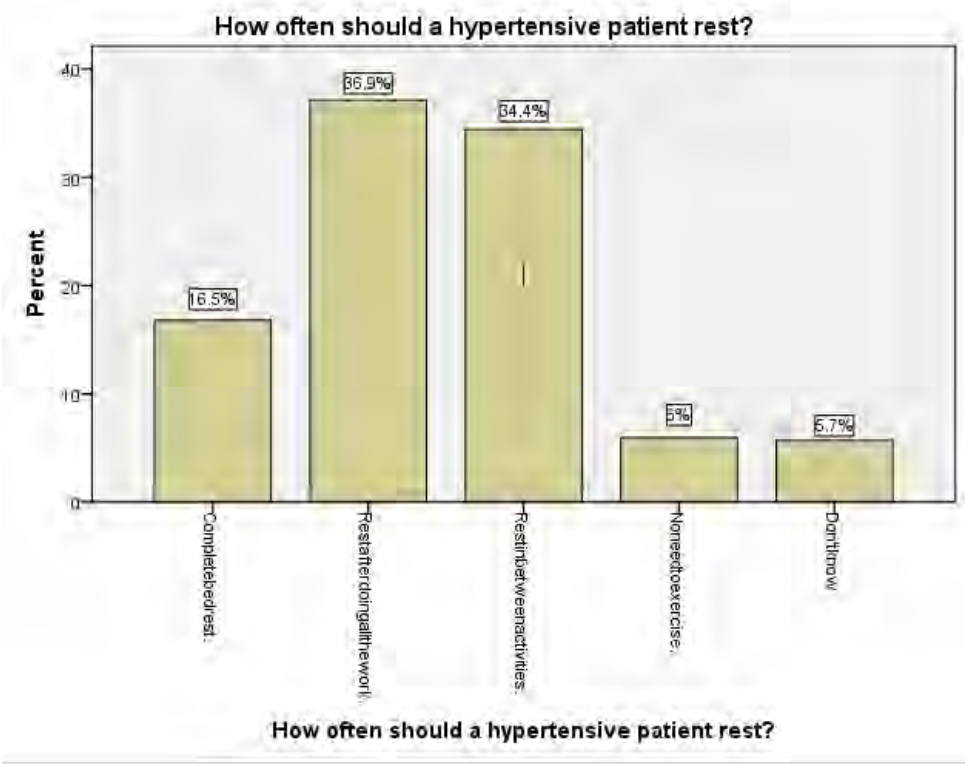

Figure 6 knowledge about rest taken by hypertensive patient rest study participants in public hospitals of Addis Ababa city Administration April 2016 Addis Ababa Ethiopia

From the total 369 respondents about 331(89.7%) of them believed that blood pressure measurement is the prompt diagnostic test to diagnose hypertension.315(85.4%) of the study participants believed that salt restriction is important dietary therapy to maintain normal blood pressure. Out of the total participants 319(86.4%) responds that regular exercise and optimal calorie intake is important to maintain normal body weight. 337(35.6%)believed that dietary therapy is the best method to control high blood pressure. of the 369 participants 339(82.5%)believed that hypertensive patients should avoid salty and salt rich foods from their diet. 330(89.4 %) of the study participants responds that they don't know anything about how much salt a hypertensive patient should take. Only 8(2.2%) of the respondents respond that hypertensive patient should take 30gm of salt per day. 335(90.8% of the study participants believed that Jogging and walking is the best form of exercise for hypertensive patients.186(50.4%) believed that yoga and meditation are best measures to reduce stress for hypertensive patients. 326(88.3%)of the study participants responds that hypertensive patients should take their medication according to current and up-to-date prescription for their

diseases.0nly 51(13.8%)of them responds that hypertensive patient should exercise30-60 minutes per day. But large amount 218(59.1 % of study participants responded that hypertensive patients should exercise not more than 30 minutes. Majority242(65.3%) of the respondents responds that hypertension transmit by genetics.

Table 4 knowledge about prompt diagnostic test and life style modification to control hypertension among hypertensive patients in public hospitals of Addis Ababa city Administration April 2016Addis Ababa Ethiopia. {n=369}

Variable	Response	Frequency	Percent
What is the prompt diagnostic study of hypertension?	Blood test	16	4.3
	Urine test	6	1.6
	Chest x-ray	8	2.2
	BP measurement	331	89.7
	Don't know	8	2.2
Nutritional therapy for hypertension	Water restriction	19	5.1
	Decrease salt intake	315	85.4
	Increase salt intake	6	1.6
	Decrease calories food	14	3.8
	Don’t know	15	4.1
How can you maintain normal body weight?	Over eating	9	2.4
	Eating fatty foods Regular exercise and optimal calorie	13	3.5
		319	86.4
	Calorie restriction	16	4.3
	Don’t know	12	3.3
Best methods to control hypertension?	Drug therapy	304	32.1
	Diet therapy	337	35.6
	Regular exercise	309	32.3

Table 4 continued

Variable	Response	Frequency	Percent
Foods to be avoid by hypertensive patients?	Salty and salt rich food	339	82.5
	Spice food	42	10.2
	Pulses	17	4.1
	Vegetable	13	3.2
At what time, hypertensive medications should be taken?	under stress situation	21	5.7
	life long	309	83.7
	Activity required physical excretion	2	0.5
	When ever feel bad	25	6.8
	Don't know	12	3.3
How does hypertensive patient should take medication?	As information got from other hypertensive patient	2	.5
	As info got from book and journal	13	3.5
	As long term prescription for illness	23	6.2
	As current prescription	326	88.3
	Don't know	5	1.4
Best measures to reduce stress?	Involving strenuous exercise	14	3.8
	Yoga and medication	186	50.4
	Sleep medication	59	16
	Watching television	61	16.5
	Don't know	49	13.3

Variable	Response	Frequency	Percent
Exercise for hypertension?	Jogging and walking	335	90.8
	Weight lifting	8	2.2
	Driving	4	1.1
	Dancing	7	1.9
	Don't know	15	4.1
How can you maintain normal body weight?	Eating too much	9	2.4
	Eating fatty foods	13	3.5
	Regular exercise	319	86.4
	Restrict calorie	16	4.3
	Don't know	12	3.3
How long should a person exercise daily?	<30 minutes	218	59 .1
	30-60 minutes	51	13.8
	>60 minutes	10	2.7
	Don't know	90	24.4
Salt rich food?	Pickles	118	32
	Milk	19	5.1
	Vegetables	7	1.9
	Rice	10	2.7
	Don't know	214	58
Hypertension occurs genetically	Yes	242	65.3
	No	127	34.7

Over all knowledge of respondents

The total mean score for knowledge was (15.0325 ± (SD 2.98)). One hundred sixty-one (43.6%), subjects scored above the mean on the total of 32 questions. The rest two hundred eight (56.4%) of the study subjects score below the mean. The maximum score 28 out of 32 knowledge question and the minimum score was 5 with a range of 23 out of 32 questions.

Table 5 over all mean knowledge of respondents about hypertension in public hospitals of Addis Ababa city Administration Addis Ababa Ethiopia April 2016 G C.{n=369}

Variable	Frequency	Percent
Poor knowledge	208	56.4
Good knowledge	161	43.6
Total	369	100.0

5.3 Self-care practice of hypertensive patient about hypertension

From the total study participant's majority (351(95.1%) had ever cheeked their blood pressure. From those who had cheeked their blood pressure 234(66.7%) cheeked their blood pressure in the month of interview.105(28.5%) consume alcohol. But they are not heavy drinker. only 1(.9%) participant drink more than 7 drink per week. of the three hundred sixty-nine participants 174(47.2% never add salt to their diet.12 (3.3%) always add salt to their food.140(37.9%) participants take their medication appropriately and engaged in rhythmic exercise in order to control their blood pressure. 18(4.9%) tries to reduce their weight to control their blood pressure. Of the 369 study participants 133(36%) check their cholesterol. From these only 35(26.3%) cheeked every six months. About 323(87.5%)of the study participants were careful about the food they take. Two hundred four (55.7%) of the study subjects were perform physical exercise.156(76.1%) of the respondents prefer walking and perform physical exercise three times a week. From the total respondent's majority 80(38.8%) perform physical exercise for 30-60 minutes.66(17.9%) of the study participants were smokers.21(31.6%) of the study participants were still smokers. From smokers only 53(80.3%) of the respondents were tries to quit smoking. Of the 369 study participants 150(40.7%) of the study participants were forgot their medication.46(12.5%) of them responded that they will stop their medication if they feel better. Majority 297(80.5%) of the

participants responded that they are carless at the time of taking their hypertensive medication.62(16.8%) of the study participants respond that they will stop their medication if they feel worse while they take their medication.

Table 6 self-care practice of study participants in public hospitals of Addis Ababa city Administration April 2016 Addis Ababa Ethiopia. {n=369}

Variables	Response	Frequency	Percent
Ever cheeked your BP?	Yes	351	95.1
	No	18	4.9
If yes when?	In this month	234	66.7
	last six month	95	27.1
	six months ago	22	6.3
Do you drink?	Yes	105	28.5
	No	264	71.5
If yes, how much?	<1 drink/week	336	33.6
	1-3 drink/week	55	51.4
	4-6drink/week	15	14
	>=7drink/week	1	.9
How often do you add salt on your food?	Never	174	47.2
	Rarely	127	34.4
	Sometimes	39	10.6
	Often	17	4.6
	Always	12	3.3
Which practice do you carry out to control your BP?	Medication and exercise	140	37.9
	Less stress	77	20.9
	Quit smoking	84	22.8
	Reduce salt	29	7.9
	DASH	21	5.7
	Losing weight	18	4.9

Do you check your cholesterol?	Yes		133	36
	No		236	64
If yes, how often?	Once in life		45	33.8
	Monthly		10	7.5
	Every 3 month		22	16.5
	Every six month		35	26.3
	More than never		21	15.8
Do you careful about food you take?	Yes		323	87.5
	No		46	12.5
Do you perform physical exercise?	Yes		204	55.7
	No		165	44.3
If yes, how often do you exercise?	3 times/week		40	19.5
	<3 times per/we		156	76.1
	>3 times/w		9	4.4
What type of exercise do perform?	Jogging		40	19.5
	Walking		156	76.1
	Cycling		8	4.4
For how long do you exercise?	< 15 minutes	33		16
	15-30 minutes	74		35.9
	30-60 minutes	80		38.8
	>60 minutes	17		9.2
Ever used tobacco?	Yes		66	17.9
	No		303	82.1
Still smoking?	Yes		21	31.8
	No		45	68.2
Tries to quit smoking?	Yes		53	80.3
	No		13	19.7
Forget to take medication?	Yes		150	40.7
	No		219	59.3
If you Feels better do you stop medication?	Yes		46	12.5
	No		223	87.5
Carless at time of taking medication?	Yes		297	80.5
	No		72	19.5
If you feel worse while you take medication do you stop it?	Yes		62	16.8
	No		307	83.2

The overall self-care practice is described by using the mean score of self -care. Total of 21 questions were asked to assess the overall self-care practice of the study subjects. about 190(51.5%) of study participants score above 8.6070 with a standard deviation of 2.6146. the maximum score was 14 and the minimum score of 3 with a range of 11 out of 21 practice questions.

Table 7 over all self -care practice of the study subjects by using mean in public hospitals of Addis Ababa city Administration April 2016 Addis Ababa Ethiopia. {n=369}

Variable	Frequency	Percent
Good practice	190	51.5
Poor practice	179	48.5
Total	369	100

5.4 Factors influencing knowledge about hypertension

Bivariate analysis showed significant associations between knowledge and educational status, monthly income, habits, sex, marital status, place of residence, source of health information, family history of hypertension, self-care practice and age of the respondents. When multiple logistic analysis only family history of hypertension, educational status, occupation and place of residency of the respondents maintain their significant association with knowledge of hypertension. Majority of Hypertensive patients who had family history had good knowledge about hypertension definition, risk factors, sign and symptoms of hypertension, methods to control hypertension, diet and drug therapy. In this study knowledge about hypertension is significantly associated with family history of hypertension, place of residency, educational status and occupational status of the study participants. Respondents who had no family history of hypertension two times less likely to had good knowledge compared with those who had history of hypertension.{(p=0.004, AOR(95%CI),2.052(1.254-3.360)} and who live in rular 73% less likely to had good knowledge compared with who live in urban{(p=0.035,AOR(95%CI)0.271(0.080-0.911)}.respondents who has no formal education and primary education educational level four and three times less likely to has good knowledge as compared with who has secondary and above education{(p=0.002,0.021,AOR(95%CI) 3.924(1.636-9.412)}and 2.848(1.173-6.914)} respectively. There is a significant association between being a merchant and knowledge about hypertension. Statically merchants three times less likely to have good knowledge compared with civil servants {(p=0.021, AOR, (95%CI) 2.848(1.173-6.914).

Table 8 Factors affecting knowledge about hypertension among hypertensive patients in public hospitals of Addis Ababa city administration April 2016Addis Ababa Ethiopia

Variable	Response	Knowledge		COR (95% CI)	AOR(95%CI)	P value
		Good	Poor			
Family hx of HPN	Yes	112(61.9%)	76(40.4%)	0.418(0.275-0.635)	2.052(1.254-3.360) *	.004
	No	69(38.1%)	12(59.6%)	1	1	
Residency	Rular	151(63.2%)	88(36.8%)	4.1262(0.598-6.555)	0.271(.080-.911) *	.035
	Urban	126(29.4%)	89(70.6%)	1	1	0.00
Education	No formal	10(5.3%)	48(26.5%)	0.294(0.154-.558)	3.924(1.636-9.412) *	.002
	Primary	65(34.6%)	53(29.3%)	0.442(0.276-0.707)	2.848(1.173-6.914) *	.021
	Secondary +	113(60.1%)	80(44.2%)	1	1	.004
Occupation	Farmer	4(2.5%)	25(13.8%)	0.226(0.083-0.617)	0.271(.080-0.911) *	.035
	House wife	16(8.5%)	32(17.7%)	0.775(0.409-1.468)	0.775(.345-1.740)	.536
	Merchant	63(33.5%)	33(18.2%)	1.131(0.694-1.844)	2.848(1.173-6.914)) *	.021
	Civil servant	105(55.9%)	91(50.3%)	1	1	.001

5.4 Factors influencing self-care practice about hypertension

Bivariate analysis showed significant associations between self-care practice and educational status, habits, place of residence, source of health information, family history of hypertension, knowledge and occupation of the respondents. With multiple logistic analysis only place of residency and educational status of the respondents maintain their significant association with self-care practice of hypertension. Multivariate analysis reveals that there is stastical association between self-care practice and educational status. Study subjects who has primary education approximately three times less likely to have good self-care practice as compared with those who has secondary and above. {(p=0.013, AOR(95%CI) = 2.352 (1.196-4.625)}.

but there is no stastical association between self-care practice and no formal education's {(P=0.580, AOR(95%CI)1.223 (.600-2.493)}. study subjects who live in rular three time less likely to have good self- care practice as compared with subjects who live in urban area. {(P= 0.000, AOR(95%CI) = 2.879 (1.757-4.717)

Table 9 Factors affecting self-care practice among hypertensive patients in public hospitals of Addis Ababa city Administration April 2016 Addis Ababa Ethiopia

Variable	Self-care Practice		COR(95%CI)	AOR(95%CI)	P value
	Poor	Good			
residency					
Rular	108(53.7%	133(79.2%)	3.272(2.057-5.205)	2.879(1.757-4.717) ***	.001
Urban	93(46.3%)	35(20.8%)	1	1	0.000
Educational status					
No formal education	42(20.9%)	16(9.5%)	0.294(0.154-0.558)	(1.223 (.600 - 2.493)	0.580
Primary	75(37.3%)	43(25.6%)	0.442(0.276-0.707)	2.352(1.196-4.625) *	0.013
Secondary and above	84(41.8%)	109(64.9%)	1	1	0.005

*p<0.05 **p<0.01 ***p<0.001

UNIT SIX

6. Discussion

This study was conducted with the intention to assess the level knowledge, self-care practice and associated factors among hypertensive patients in public hospitals of Addis Ababa city Administration. Data coming from this study ascertained that 50.4% of the participants were male and the mean age was 57 ±13 years. The study showed that the mean (±SD) knowledge score of study participants was 15.0325 (±2.98).In this study out of the 369 study participants 181(49.1%) and 201(54.5%) has poor knowledge and poor self-care practices towards hypertension respectively .This is low when compared studies in West Indies and Malaysia.(18,27,32) but high compared with study in other part of Pakistan.(20) The low score of knowledge and self-care practice was mainly due to illiteracy, low socioeconomic class of the patients. Patients having poor practice scores had poor control on blood pressure. The common reasons for poor practice were mainly poor compliance, lack of regular follow-up, poor diet control, lack physical exercise. 0f the 181 study subjects who had family history of hypertension about 112(59.6%) has good knowledge. from those who had good knowledge about hypertension 80(44.2%) of the study subjects attend at least secondary school. This is in lined with the study conducted in Gahana in which subjects with master's degree and above has good knowledge as compared to less educated.(36). In fact, 186(50.4%) of hypertensive respondents acknowledged that they received knowledge from their health professionals. This is similar with the study conducted in Chaina (30).

This study ascertained that majority of the study participants had good knowledge about hypertension definition, risk factors, exercise, diet and sign and symptom, but poor knowledge about the particular exercise, duration of exercise, food contents to be avoided stress reduction techniques, diagnostic techniques and evidence of target organ damage. This approximately similar studies done in Nepal, sub-Sahara Nigeria and India.(5,29,32). A study done in Pakistan reveals that large number of participants considered salt intake as the risk factor to be associated with high BP. This is different from our study that the great majority of the respondents responded that age is the major risk factors for high blood pressure. This may be due to different in educational status (41).

Alarmingly, very high numbers of 173(46.95) study subjects define hypertension as blood pressure greater than or equals to 140/90 mmhg whereas the rest 132(35.8%)and 64(17.8%) of the respondents responds that I don't know and call numbers that is less than 140/90 mmhg respectively. this is high compared with study conducted in Pakistan in which only (8%) were aware about the correct definition of HTN and majority of the patients (82%) did not know anything about this term(42). For signs and symptoms of hypertension, it was observed that majority of the participants (n=369; 92.1% mentioned that hypertension had several signs and symptoms. Some of the signs and symptoms identified included headache, dizziness and nausea. This is high compared with other studies in other areas. This may be due to difference in educational status of the participants (43).

This study reveals that almost half (49.1%) of the study participants has family history of hypertension. Respondents who had no family history of hypertension two times less likely to had good knowledge about hypertension compared with those who had family history of the diseases with (p=0.004, AOR (95%CI) 2.052(1.254-3.360). This finding is in agreement in the study in Botswana that reveals level of knowledge related to hypertension was high in participants who had family history of hypertension(28).

This study ascertained that there is stastical association between self-care practice with educational status and place of residency on multi variant logistic regarrison. Study subjects who had primary educational level approximately three times less likely to have good self-care practice as compared with those who has secondary and above educational level. {(p=0.013, AOR(95%CI) = 2.352 (1.196-4.625)}. but there is no stastical association between self-care practice and no formal education's {(P=0.580, AOR(95%CI)1.223 (.600-2.493)}. These findings are in agreement with other studies which demonstrated that education is regarded as an essential prerequisite for self- care practice of a chronic disease(39).

In this study participants answers to the questions related to the self-care practices of hypertension carried out by the sample populations When asked, do you regularly check your blood pressure, 351 (95.1%) claimed to check it regularly with most of them checking monthly, 234 (66.7%), this is high compared with the study done in Saudi Arabia. This may be due to different in educational status of the respondents(41)

study participants who live in rular three time less likely to have good self- care practice as compared with participants who live in urban area. {(P= 0.000, AOR(95%CI) = 2.879 (1.757-4.717)}. this is inconsistence with study in Saudi Arabia. This may be due to difference social, educational and economic status (41).

Regarding participants' involvement and frequency of physical activity, findings of this study showed a high proportion 204(55.7%) of participants who were involved in regular exercise for at least three times a week. This is low compared with study in Saudi Arabia. This may be due to educational status(39).

Strengths and limitations of the study

Strength

High response rate

Limitations

- ✓ Social desirability bias due to sensitive and personal question related to knowledge and self-care especially about financial issues.
- ✓ Limitation of related literatures to compare and discuss some of the findings.
- ✓ Because the data are cross sectional, the direction of causal relationship between variables can't always be determining

UNIT SEVEN

7. Conclusion and recommendation

7.1 Conclusion

Despite the important role of knowledge and self-care practices in management of hypertension were recognized to be useful and effective in achieving hypertension control and preventing its complication, findings of this study were confirm previous findings concerning self-care among people with self-care practice was accomplished as recommended in majority respondents but knowledge was more problematic. The self-care practice diet management practices, exercise, blood pressure checkup, away from habit especially warrants. However, regular checkup of blood pressure and diet management practices are said to be the corner stone of self-care practices and hypertension control. Generally, self-care practices were suboptimal among hypertensive patients in public hospitals of Addis Ababa city administration.

7.2 RECOMMENDATION

- Family members should be informed about their important roles in encouraging patients to undergo a hypertension control or self-care practices.
- Health care personnel must increase patient's awareness toward the importance of all types of self-care practices domains and strongly promote the practice among hypertensive patients via strengthening IEC program, hypertension association.
- Staff members of the rental units and department of internal medicine need to participate in strengthening the overall awareness of the patients toward their self-care practice.
- Nursing research should be carried out to investigate the knowledge and self-care in broader social context and larger sample size.
- All nurses' workings on hypertension should give strict advice on importance of self-care practices for hypertensive patients during their follow up schedule and develop educational programs and activities to educate patients on the prevention and treatment of hypertension, and should not rely on medical intervention only.

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ANNEXES

Annex I: Subject Information Sheet (English Version)

Addis Ababa University, College of Health Sciences, Department of Nursing and Midwifery

Graduate Studies

Dear participant!

Here, I the undersigned, at Addis Ababa University College of Health Sciences, School of Allied Health Science, Department of Nursing and Midwifery Graduate Study Program, currently I will be undertaking research on a topic entitled as assessment of knowledge, self-care practice and associated factors towards hypertension in government hospitals of Addis Ababa .For this study, you will be selected as a participant and before getting your consent, you need to know all necessary information related to the study which will be detailed as follows.

Purpose of the study: the purpose of this study is assessment of hypertensive knowledge, self-care practice and associated factors among patients attending government hospitals in Addis Ababa.

Participants to be included: all hypertensive patients sampled by systematic sampling will be included in the study

Benefits and risk of the study:

Benefits: For your participation in the study no payment will be granted or has no any special privilege to you. Your responses to the following questions are beneficial to you and other hypertensive patients as input in improvement of hypertensive knowledge, self-care practice and to identify the factors which affect the knowledge of self-care so that recommendations will be made to responsible organizations to fill those gaps.

Risks: The study will be conducted through interviews and you are being asked for a little of your time, a maximum of 30 min, to help us in this study. There is no possible risk associated with participating in this study except the time spent for responding to the questionnaire.

Confidentiality: Your name will not be written in this form and any information you tell us will not be disclosed to third party. Your participation is voluntary and you are not obligated

to answer any question you do not wish to answer. If you feel discomfort with the question, it is your right to drop it any time you want. If you have questions regarding this study or would like to be informed of the results after its completion, please feel free to contact the principal investigator.

Address of the principal investigator:

Sindew Mahmud

Cell phone: +251929133481, E-mail: hayatlove2005@gmail.com

Are you satisfied with the information provided so far?

1. Yes…….. Continue to the next page

2. No …… I won't participate

Annex II Consent form (English Version)

In undersigning this document, I am giving my consent to participate in the study entitled as "assessment of hypertension knowledge self-care practices and associated factors among hypertensive patients in selected government hospitals of Addis Ababa, Ethiopia" I have been informed that the purpose of this study is to assess hypertension knowledge self-care practices and associated factors patients in selected government hospitals of Addis Ababa, Ethiopia, I have understood that participation in this study is entirely voluntarily. I have been told that my answers to the questions will not be given to anyone else and no reports of this study ever identify me in any way. I have also been informed that my participation or non-participation or my refusal to answer questions will have no effect on me. I understood that participation in this study does not involve risks. I understood that Sindew Mahmud is the contact person if I have questions about the study or about my rights as a study participant.

Respondent's signature_____

Interviewer

Name_____Signature_____Date_____

English version Questionnaire

Part I: - Socio demographic data

Instruction: - I request you kindly to go through each question and give your responses by placing a tick mark (√) against the box provided.

No	Variable	Response	Skip to….
101	Age	----------years	
102	Sex	Male Female	
103	Educational level	Illiterate Primary Secondary and above	
104	Marital status	Single Married Divorced Widowed	
105	Occupation	Farmer House wife Merchant Civil servant	
106	Monthly income	----------ETB	
107	Habits	Smoking Alcohol None	
108	Place of residency	Rular Urban	
110	Source of health information	Family members Mass media Health professionals	
111	Family history of HPN	Yes No	

Part II: - Knowledge questionnaire

Instruction: - Kindly go through the questions given below and tick (√) against appropriate answer. Each correct answer carries 1 mark

No	Variable	Response	Skip to….
201	What is meant by hypertension?	------/-----mm Hg	
202	What is the normal range of blood pressure?	------/-----mm Hg	
203	Which is the risk factor of hypertension given below? More than one answer possible	1. Stress 2. Age 3. Hereditary	
204	Which is the sign and symptom present in hypertensive patent? More than one answer possible	1. Headache 2. Dizziness 3. Nausea	
205	What evidence of target organ damage is present?	1. Liver dysfunction 2. GI dysfunction 3. Respiratory dysfunction 4. Renal dysfunction 5. Don't know	
206	What is the prompt diagnostic study of hypertension?	1. Blood test 2. Urine test 3. Chest x-ray 4. BP measurement 5. Don't know	
207	Which of the following methods are used to control hypertension? More than one answer possible	1. Diet control 2. Drug therapy 3. Regular exercise 4. Don't know	

208	What nutritional therapy for hypertension is recommended?	1. Water restriction 2. Decrease salt intake 3. Increase salt intake 4. Decrease calorie reach foods Don't know	
209	Which of the following food should a hypertensive patent avoid? More than one answer is possible	1. Salt reach and salty foods 2. Spicy foods 3. Pulses 4. Vegetables 5. Don't know	
210	Which of the following is a salt rich food?	1. Pickles 2. Milk 3. Vegetables 4. Rice 5. Don't know	
211	How much salt is given to hypertensive patient/day?	_____gm	
212	How can you maintain normal body weight?	1. Over eating 2. Eating fatty foods 3. Regular exercise and optimal calorie intake 4. Calorie restriction 5. Don't know	
213	How long should a person exercise daily?	----------minutes	
214	What is the best measure followed to reduce stress?	1. Involve in strenuous work 2. Yoga and meditation 3. Administering sleep medication 4. Watching television 5. Don't know	

215	What form of exercise is good for hypertension?	1. Aerobics (walking, jogging) 2. Weight bearing 3. Driving 4. Dancing 5. Don't know	
216	At what all time, hypertensive medications should be taken?	1. Under stress situation. 2. As life long way to manage high blood pressure. 3. When activities require physical exertion. Whenever a patent feels bad. 4. Don't know	
217	How does hypertensive patient take medications?	1. As per information got from other hypertensive patents. 2. As per information got from books and journals. 3. Taking medications which were prescribed for the disease long time ago. 4. Taking the medications which are currently prescribed by the doctor. 5. Don't know	
218	How often should a hypertensive patient rest?	1. Complete bed rest. 2. Rest after doing all the work. 3. Rest in between activities. 4. No need to exercise. 5. Don't know	
219	How much time should a person take rest and sleep per day?	----------hrs	
220	Hypertension will occur genetically	1. True 2. False	

PART III: -SELF-CARE PRACTICE TOWARDS HYPERTENSION

	Questions	Response	Skip to
301	Have you ever cheeked your BP by yourself?	Yes No	If No to Q 303
302	If yes when?	1.In this month 2. In the last six month 3. Before six months	
303	Are you drinking alcohol?	Yes No	If no toQ305
304	On average, how often do you usually drink alcohol (one portion of alcohol is having at least 1 glass of wine, can/bottle of beer, a shot (50g) of cognac or ouzo)? (Read all options, check one answer)	1. Less than one drink a week 2. One to three drinks a week 3. Four to six drinks a week 4. Seven or more drinks a week 5. Never	
305	How often do you add salt to your food without trying it? (Read all options, check one answer)	1. Never 2. Rarely 3. Sometimes 4. Often 5. Always	
306	Do you have a home sphygmomanometer?	1. Yes 2. No	
307	What are the barriers towards self-testing for BP	1. Expensive 2. Lack of awareness 3. Pain	
308	Which single most important practice do you carry out to control your high BP?	1. Taking medication rhythmic exercise 2. Less stress 3. Quitting smoking 4. Reducing salt content in diet 5. diet (diet approaches to stop HTN) 6. Losing weight	
309	Do you check your cholesterol?	1. yes 2. No	

310	How often do you get your blood cholesterol checked?	1. Once/twice in a lifetime 2. Monthly 3. Every 3 months 4. every 6 months 5. More than that Never	
311	Do you consider about food portions and choices whenever you have to eat food.	1. Never 2. Rarely 3. Sometimes 4. Often 5. Always	
312	Do you perform physical exercise at all?	1. Yes 2. No	
313	How often do you exercise?	1. Three times per week 2. Three times per week 3. > Three times per week	
314	What type of exercise do you perform?	1. Walking 2. Jogging 3. Cycling 4. Others…	
315	For how long do you exercise per session?	1. <15 min 2. 15-30min 3. 30-60min 4. >60min	
316	Have you ever used tobacco?	1. Yes 2. No	
317	Do you still smoke cigarettes?	1. Yes 2. No	
318	Have you tried to quit smoking?	Yes No	
319	Do you ever forget to take your medicine?	Yes No	
320	Are you careless at times about taking your medicine?	Yes No	

321	Sometimes if you feel worse when you take the medicine, do you stop taking it?	Yes No	
322	When you feel better do you sometimes stop taking your medicine?	Yes No	

Annex III ፡- Amharic version questionnaire

ክፍል አንድ፡- የስምምንት መግለጫ

ቀን.....ሰዓት.....የቃለመጠይቅመለያ ቁጥር.....

እንደምን አደሩ/ዋሉ?ስሜ.....ይባላል የስራ ባልደረባዬ ደግሞ ስነዴዉ ማሀሙድ ይባላሉ ;; በአዲስ አበባ ዩኒቨርሲቲ የነርሲንግ ትምህርት ቤት ተማሪ ናቸዉ;; ዛሬ ወደ በትቁር አንበሳ፣ቅዱስ ፓዉሎስ እና በዳግማዊ ሚኒልክ ሆሰፒታሎች የደም ግፊት ታካሚወች በደም ግፈት በሽታ ዙሪያ ስላላቸዉ አጠቃላይ እዉቀት እና ተግባር ለመገምገም የሚያስችል መረጃ ለመሰበሰብ ነዉ;; የሚሰበሰበዉ መረጃ ሙሉ በሙሉ በሚስጥር የሚያዝ መሆኑን እናረጋግጥልዎታለን;; የእርስዎ ስም፤ መለያ አድራሻ አይመዘገብም;; መረጃ መስጠት ካልፈለጉ መብትዎ ነዉ;; መመለስ ያልፈለጉትን ጥያቄ መዝለል/ማለፍ/ ይችላሉ;; ይሁን እንጂ የእርስዎ ትብብር እና ትክክለኛ ምላሽ ጥናቱና ምርምሩ እንዲሳካ ትልቅ አስተዋጽኦ ይኖረዋል;; ስለዚህ ለሚቀርብልዎት ጥያቄ ትክክለኛ መልስ ለመስጠት ፍቃደኛ ሆነዉ በትዕግስት እንዲመልሱልንእንጠይቅዎታለን፡፡ ቃለ መጠይቁ በግምት 30 ደቂቃ ይፈጃል፡፡ ጥያቄ አለዎት? በጥናቱ ዉስጥ ለመሳተፍ ፍቃደኛ ነዎት? አዎ---------- ወደ ሚቀጥለው ገፅ ይለፉ አይደለሁም ---------- አመሰግናለሁ

የስምምነት ፍቃዱን የወሰደው (የተቀበለው) ጠያቂ

ስም ---------- ፊርማ----------

ክፍል ሁለት የማህበራዊ ሁኔታ ቃለ መጠይቅ

መመሪያ:- ጥያቄዉን በደንብ ከተረዱ በኋላ ከተሰጡት ምርጫዎች ዉስጥ በመልስዎ ላይ(√) ምልክት ያስቀምጡ;;

ተራ ቁጥር	ጥያቄ	አማራጭ መልስ	ወደ ጥያቄ.... እለፉ.
101	እድሜ	-------አመት	
102	. ጸታ	ወንድ - ሴት	
103	የትምህርት ደረጃ ----------	1. ማንበብ እና መጻፍ የማይችል 2. የመጀመሪያ ደረጃ 3. ሁለተኛ ደረጃ እና ከዚያ በላይ	
104	የጋብቻ ሁኔታ	1. ያላገባ/ች 2. ያገባ/ች 3. የፈታ/ች 4. በሞት የተለዩ	
105	የስራ ሁኔታ----------	1. ግብርና 2. የቤት እመቤት 3. ነጋዴ 4. የመንግስት ሰራተኛ	
106	የአገልግሎት ዘመን	----------ዓመት	
107	ወርኃዊ ገቢ	---------- ብር	
108	ልማድ	1. ሲጋራ 2. አልኮል 3. ምንም ልማድ የለኝም	

109	ስለ ጤናማ አኗኗር ዘይቤ መረጃ አግኝተዉ ያዉቃሉ?	1. አዎ 2. አላዉቅም	
110	መረጃ አግኝተዉ ከሆነ ከማን አገኙት?	1. ከቤተሰብ አባላት 2. ከመገናኛ ብዙሀን 3. ከጤና ባለሞ	
111	ከቤተሰበወ ዉስጥ በደመ ግፊት የተያዘ ሰዉ አሉ	1. አወ 2. የለም	

ክፍል ሶስት አዉቀት ቃለ መጠይቅ

ተራ ቁጥር	ጥያቂ	አማራጭ ምልስ	ወደ ጥያቄ--እለፍ
201	አንድ ጤናማ ሰዉ የደም ግፊት ስንት በስንት ነዉ?	-------/------ሚሜሜ	
202	የደም ግፊት በሽታ ማለት ምን ማለት ነዉ?	--------/------ሚሜሜ	
203	. ለደም ግፊት በሽታ ተጋላጭነት መንስኤ የሆነዉ የቱ ነዉ?	1. ጭንቀት 2. እድሜ 3. የዘር ሀረግ 4. አላዉቀዉም	
204	የደም ግፊት ህመም የሚያሳየዉ ስሜት እና ምልክት የቱ ነዉ?	1. የራስምታት 2. መፍዘዝ 3. ማቅለሽለሽ 4. አላዉቀዉም	
205	በደም ግፊት የሚጠቁ የሰዉነት ክፍሎች የትኞቹ ናቸዉ?	1. የጉበት ተግባር መታወክ 2. የአንጀት ተግባር መታወክ 3. የመተንፈሻ አካላት መታወክ 4. የኩላሊት ተግባር መታወክ 5. አላዉቀዉም	
206	የደምን ግፊት ለማወቅ የትኛው አይነት ምርመራ መደረግ አለበት?	1. የደም ምርመራ 2. የሽንት ምርመራ 3. የደረት ራጅ ምርመራ 4. የደም ግፊትን መለካት 5. አላዉቀዉም	

206	የደምን ግፊት ለማወቅ የትኛው አይነት ምርመራ መደረግ አለበት?	1. የደም ምርመራ 2. የሽንት ምርመራ 3. የደረት ራጅ ምርመራ 4. የደም ግፊትን መለካት 5. አላዉቀዉም	
207	የደም ግፊት በሽታን ለመቆጣጠር የሚጠቅመዉ ዘዴ የቱ ነዉ?	1. አመጋገብን ማስተካከል 2. መድሀኒት መዉሰድ 3. የአካል ብቃት እንቅስቃሴ ማዘዉተር	
208	የደም ግፊት ህመምተኛ መመገብ የሌለበት ምግብ የትኛዉ ነዉ?	1. ጨዉ የበዛበት ምግብ 2. ቅመም የበዛበት ምግብ 3. ጥራጥሬ 4. አትክልት 5. አላዉቀዉም	
209	የደም ግፊት ህመምተኛ መከተል ያለበት የአመጋገብ ስርዓት የትኛዉ ነዉ?	1. ትንሽ ዉሀ መጠጣት 2. ጨዉ ያልበዛበት ምግብ መመገብ 3. ጨዉ የበዛበት ምግብ መመገብ 4. ሀይል ሰጪ ምግቦችን መቀነስ 5. አላዉቀዉም	
210	ከሚከተሉት ዉስጥ ጨዉ የበዛበት ምግብ የትኛዉ ነዉ?	1. ሆምጣጤ የበዛበት ሰላጣ 2. ወተት 3. አትክልት 4. ሩዝ 5. አላዉቀዉም	
211	የደም ግፊት ያለበት ሰዉ በቀን ምን ያህል ጨዉ መዉሰድ አለበት?	---------ግራም	
212	የሰዉነታችንን ክብደት እንዴት መቆጣጠር እንችላለን?	1. ብዙ በመመገብ 2. ስብ የበዛባቸዉን ምግቦችን በመመገብ 3. የአካል ብቃት እንቅስቃሴ አዘዉትሮ መስራት እና 4. በቂ ሀይል ሰጪ ምግብ መመገብ 5. አላዉቀዉም	

213	. በቀን ለምን ያህል ደቂቃ የአካል ብቃት እንቅስቃሴ መስራት ጥሩ ነዉ?	ለ----------ደቂቃ	
214	ጭንቀትን ለመቀነስ የሚጠቅመዉ የትኛዉ ነዉ?	1. ከባድ ስራ መስራት 2. የዮጋ እስፖርት መስራት 3. መድሀኒት ወስዶ መተኛት 4. ቴሌቪዥን መመልከት 5. አላዉቀዉም	
215	. ለደም ግፊት ህሙማን ተስማሚ የሆነዉ የአካል ብቃት እንቅስቃሴ የትኛዉ ነዉ?	1.የእግር ጉዞ እና ሶመሶማ ሩጫ 2. ክብደት ማንሳት 3. መኪና ማሽከርከር 4. ዳንስ /ጭፈራ/ 5. አላዉቀዉም	
216	የደም ግፊት በሽታ መድሀኒት መወሰድ ያለበት መቼ ነዉ?	1. የጭንቀት ስሜት ሲሰማ ብቻ 2. ዘወትር ለእድሜ ልክ 3. አድካሚ ስራ ሲሰራ ብቻ 4. ጥሩ ስሜት አልሰማ ሲል 5. አላዉቀዉም	
217	የደም ግፊት ህመምተኛ መድሀኒት አወሳሰድ መሆን ያለበት እንዴት ነዉ?	1. ከሌሎች ህሙማን ባገኘዉ መረጃ መሰረት 2. ከመጻህፍት እና ከ መጽሄት ባገኘዉ መረጃ መሰረት 3. ከረጅም ግዜ በፊት በታዘዘለት መሰረት 4. በቅርብ ግዜ ሀኪሙ ባዘዘለት መሰረት 5. አላዉቀዉም	
218	የደም ግፊት ህመምተኛ እረፍት ማድረግ ያለበት ሁኔታ እንዴት ነዉ?	1. አልጋ ላይ በመተኛት ማረፍ 2. ከስራ በኋላ ማረፍ 3. በስራ መሀከል ማረፍ 4. እንቅስቃሴ ማድረግ የለበትም 5. አላዉቀዉም	
219	. አንድ ሰዉ በቀን ለምን ያህል ሰዓት እረፍት ቢያደርግ ጥሩ ነዉ?	----------ሰዓት	

220	የደም ግፊት በሽታ በዘር ይተላለፋል።	1. እስማማለሁ 2. አልስማማም	

ክፍል ሶስት፡-ተግባር ቃለ መጠይቅ

መመሪያ ፡-ጥያቄዎቹን አንብበዉ ከተረዱ በኋላ በመልስዎ ትይዩ ባለዉ ቦታ ላይ የ(√) ምልክት ያስቀምጡ;;

	ጥያቄ	አማራጭ መልስ	ወደ ጥያቄ---እለፍ
301	. የደም ግፊትዎን ተለክተዉ ያዉቃሉ?	1. አዎ 2. ተለክቼ አላዉቅም	መልሰዎ አይ ከሆነ ወደ ጥያቄ ቁጥር 303
302	አዎ ከሆነ መልስዎ መቼ?	1. በዚህ ወር ዉስጥ 2. ባለፈዉ 6 ወር ዉስጥ 3. ከ 6ወር በፊት	
303	አልኮል ይጠጣሉ?	1. አዎ 2. አልጠጣም	መልሰዎ አልጠጣም ከሆነ ወደ ጥያቄ ቁጥር 305
304	አዎ ከሆነ መልስዎ በአማካይ ምን ያህል ይጠጣሉ? /መገለጫ፡- አንድ መጠን የሚባለዉ ቢያንስ 1 ብርጭቆ ወይን፣ 1ጠርሙስ ቢራ፣ ወይም 50 ሲሲ ኡዞ፣ ጂን የመሳሰሉ አልኮሎች ማለት ነዉ;;/	1. አንድ መጠን በሳምንት 2. ከ1-3 መጠን በሳምንት 3. ከ 4-6 መጠን በሳምንት 4. ከ7 መጠን በላይ በሳምንት	
305	በምግብዎ ላይ ተጨማሪ ጨዉ ይጠቀማሉ?	1. አልጠቀምም 2. አልፎ አልፎ 3. አንዳንድ ግዜ 4. አብዛኛዉን ግዜ 5. ዘወትር	
306	.ከቤት ዉስጥ የደም ግፊት መለኪያ መሳሪያ አለወት	1. አዎን 2. የለኝም	

307	በቤት ዉስጥ የደም ግፊትዎን አንዳየለኩ ምክንያቱ ምንድን ነዉ ?	1. መሳሪያዉ ዉድ ነዉ 2. ቤት ዉስጥ እንደሚለካ አላዉቅመ ነበር 3. ህመም ስላለው	
308	ከሚከተሉት አንዱ ተግባር የደም ግፊትዎን ለመቆጣጠች ይጠቅማል?	1. መድሀኒቱን በአግባቡ መዉሰድ 2. ተከታታይ የሆነ የአካል እንቅስቃሴ ማድረግ 3. ጭነቀትን መቀነስ 4. ሲጋራ ማጨስ ማቆም 5. ጨዉ መቀነስ 6. ክብደት መቀነስ	
309	በደምዎ ዉስጥ ያለዉን የኮሌስተሮል መጠን ለክተዉ ያዉቃሉ ?	1. አዎ 2. አላዉቅም	
310	መልሰዎ አዎ ከሆነ በየስንት ጊዜ የለካሉ	1. በህየዎት ዘመኔ አንድ ጊዜ ወይም ሁለት ጊዜ 2. በየወሩ 3. በየሶስት ወሩ 4. በየስድስት ወሩ 5. ከዚያ በላይ	
311	ስለሚመገቡት የምግብ አይነት /ክፌሌ/ ያስባሉ	1. ምንም አላደርግም 2. አሌፍ አሌፍ አደርገዋለሁ 3. አብዘኛውን ጊዜ አላደርገውም 4. ሁላም አደርገዋለሁ	
312	የአካሌ ብቃት አንቅስቃሴ ያደርጋሉ	1. አደርጋለሁ 2. አላደርግም	መልሰዎ አላደርግም ከሆነ ወደ ጥያቄ ቁጥር 316
313	በየስንት ጊዜው እንቅስቃሴ ያዯርጋለ?	1. በሳምንት ከ3 ቀን 2. በሳምንት 3 ቀን 3. በሳምንት ከ3 ቀን በሊይ	
314	ምን አይነት እንቅስቃሴ ያዯርጋለ?	1. እርምጃ 2. ሶምሶማ	

		3. ብስክላት መንዲት 4. ሌላ---------	
315	በቀን ምን ያህል ጊዜ ይንቀሳቀሳለ?	1. ‹15 ዯቂቃ 2. 15-30 ደቂቃ 3. 30-60 ደቂቃ 4. ›60 ደቂቃ በላይ	
316	ሲጋራ አጭሰው ያውቃሉ ?	1. አውቃለሁ 2. አላውቅም	መልሰዎ አላዉቅም ከሆነ ወደ ጥያቄ---319
317	አሁንም ሲጋራ ያጨሳለ?	1.አጨሳለሁ 2. አላጨሰም	
318	ሲጋራ ማጨስ ሇማቆም ምክረው ያውቃሉ?	1. አውቃለሁ 2. አላውቅም	
319	ማፉት መዴሃኒቶች መውሰዴ ረስተው ያውቃለ?	1. አውቃለሁ 2. አላውቅም	
320	የማፉት መዴሃኒት አወሳሰዴዎ የሚገባውን ትኩረት ይሰጣለ?	1. እሰጣለሁ 2. አልሰጥም	
321	የማፉት መዴሀኒት ወስዯው ምቾት ከሌተሰማዎት መዴሃኒቱን ያቆሙታሌ?	1. አቆማለሁ 2. አላቆምም	
322	ከማፉት ጋር በተያያዘ የሚሰማዎት ህመም በማይኖርበት ጊዜ መዴሃኒቶችን መውስዴ ያቆማለ?	1. አቆማለሁ 2. አላቆምም	