WELKITE UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCE

DEPARTMENT OF NURSING

SELF-MANAGEMENT ADHERENCE AND ASSOCIATED FACTORS AMONG HYPERTENSIVE PATIENTS WHO ARE ON FOLLOW UP AT WOLKITE UNIVERSTY SPECIALIZED AND TEACHING HOSPITAL, GURAGHE ZONE, SNNPR, ETHIOPIA, 2023.

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A THESIS REPORT TO BE SUBMITTED TO WOLKITE UNIVERSITY, COLLEGE OF MEDICINE AND HEALTH SCIENCE'S DEPARTMENT OF NURSING IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR BACHLER DEGREE IN NURSING

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LIST OF ACRONYMS AND ABREVATIONS

AOR	Adjusted Odds Ratio
BMI	Body Mass Index
BP	Blood Pressure
CI	Confidence interval
CKD	Chronic Kidney Disease
COR	Crud Odds Ratio
CSA	Central Statistical Agency
CVA	Cerebro vascular accident
CVD	Cardiovascular diseases
DASH	Dietary approaches to stop hypertension
DBP	Diastolic blood pressure
ETB	Ethiopian birr
HBP	High blood pressure
H-SCALE	Hypertension self-care Activity Level Scale Effects
HTN	Hypertension
K	Sampling interval
LMIC	Low and middle-income countries
Mm Hg	millimeters of mercury
NCD	Non communicable diseases
NSAIDs	Non steroidal anti-inflammatory drugs
OSSS	Oslo social support scale
SBB	Systolic blood pressure
SNNPR	Southern Nation, Nationality People Region
SSA	Sub-Saharan Africa
WHO	World health organization

ABSTRACT

Background: hypertension is the "silent killer" because it typically exhibits no warning indications or symptoms. Hypertension is a serious warning sign that significant self-management are required to avoid and handle complications. Self-management is the capacity of individuals, families, and groups to participate actively in health promotion and defense, illness prevention, and disability management, either with or without the assistance of a healthcare professional.

Objectives: To assess the level of self-management adherence and associated factors among hypertensive patient who are on follow up at Wolkite University specialized and teaching hospital, Gurage Zone, SNNPR, Ethiopia, 2023.

Method: The conducted study design was hospital-based cross-sectional study. Systematic random sampling technique was use to select the study samples. Data collected by principal investigators using a structured questionnaire. Data cleaned and entered to SPSS 25 versions. Descriptive statistics used to describe the sample. Associations between independent and dependent variables were analyzed first using bivariate binary logistic regression analysis. Those independent variables which have p-value <0.25 was considered for multivariate analysis to test for independent association. Adjusted odds ratio and 95% confidence interval and P-value of<0.05 were considered as statistically significant. The results of the study expressed as percentages and frequencies and prepared by using tables and graphs.

Results: The level of good self-management practice among hypertensive patients was 34.7% (95%CI: 26.2-40.3%). Respondents with educational level of college/university and above were about 11.863 times (AOR= 11.863, 95% CI: 2.547, 55.259, P=0.002) more likely to engage in good hypertension self-management practices as compared to those respondents that did not able to read and write. Participants who had good self-efficacy were about 3.176 more likely to engage in good hypertension self-management practices as compared to those respondents who had poor self-efficacy (AOR=4.173, 95% CI: 1.210, 8.338, p=0.019).

Conclusions: This study reported a lower level of self-management practice by hypertensive patients; only 34.7% of the respondents had good hypertension self-management practices. Educational level and self-efficacy were factors identified having had statistically significant association with the self-management practice.

Keywords: Adherence, associated factor, hypertensive patient, self-management, Wolkite University specialized hospital

1. INTRODUCTION

1.1Background

HTN indicates that the arterial pressure is greater than the acceptable range[1]. As defined by WHO, hypertension is "a Systolic blood Pressure (SBP) or Diastolic blood pressure (DBP) equal to or higher than 140/90 mmHg among adults greater than or equal to 18 years of age" [2]. It is the "silent killer" because it typically exhibits no warning indications or symptoms [3], [4], and [5]. However, some hypertensive patients may experience certain signs and symptoms, including headache, dizziness, epistaxis, and symptoms related to organ affection and underlying illnesses [6]. These symptoms frequently do not start to show up until blood pressure levels are high or life threatening. The only method to know for sure if a person has HTN is to have their blood pressure measured by a doctor or other healthcare professional [5].

Primary or essential and secondary hypertensions are the two main classifications of hypertension. Essential hypertension, which accounts for 90 to 95% of diagnosed cases of hypertension, has no known cause but it closely related to lifestyle. Secondary hypertension accounts about 5 to 10% of cases, caused due to an underlying medical disease such as congestive heart failure, kidney, liver, or endocrine (hormone) system harm[7] . According to Ethiopian National Guideline on Major non-communicable diseases, Hypertension classified as Normal when SBP < 120 mmHg, and DBP < 80 mmHg, Pre-hypertension: SBP 120-139 mmHg or DBP 80-89 mmHg, Stage 1 hypertension: SBP 140-159 mmHg, or DBP 90-99 mmHg, Stage 2 hypertension: SBP $\geq$160 mmHg, or DBP $\geq$100 mmHg and Severe Hypertension when BP$\geq$180/110 [8]. Hypertension is a serious warning sign that significant lifestyle changes are required [8].

Self-management of hypertension requires information, attitude, discipline, determination, commitment, self-regulation, empowerment, and self-efficacy. It involves taking prescription medications, eating a low-sodium, low-fat diet, exercising, limiting alcohol consumption, quitting smoking, losing weight, checking one's blood pressure regularly, visiting the doctor regularly, and reducing stress [9].

1.2 Statement of the problem

Globally cardiovascular disease (CVD) accounts for 17.3 million deaths annually and is expected to increase to over 23.6 million by the year 2030 [10]. Out of the 17 million international deaths per year that end result from cardiovascular disease, 9.4 million are due to hypertension [11]. Hypertension is a significant public health concern in both developed and developing nations [12]. It is known to be the primary threat factor for global CVD morbidity and mortality [13] and increases the risk of heart attack, stroke [1] as well as atherosclerosis [5].

Globally, by 2025, it is predicted that 29% of adults (or 1.56 billion) will have hypertension, making it the most common condition among people worldwide [2].Three-fourth of them live in low and middle-income countries (LMIC) [1]. More than 80% of the prevalence of hypertension in low- and middle-income nations is attributable to inadequate self-care and lack of information [14]. One in three individuals in America (77.9 million) and 970 million persons globally has high blood pressure [5]. Hypertension with an incidence rate of 29.8%, one of the most prevalent non-communicable illnesses in India [15]. In sub-Saharan Africa (SSA), the quantity of hypertension instances projected to be between 125.5 and 162.8 million by means of 2025 [2].

Studies carried out in Ethiopia have revealed a steadily rising number of instances of hypertension overall. With an incidence rate of 19.6%, hypertension is the most prevalent non-communicable illness (NCD) in Ethiopia [16]. This increase is ascribed to the rising prevalence of risk factors like smoking, obesity, risky alcohol use, and inactive behavior [2].

Despite the availability of numerous effective pharmacological and non-pharmacological techniques to manage HTN, they failed to produce the desired results. The reason for these direct towards poor self-management adherence. Self-management practices are still uncommon in emerging nations, which makes it difficult for patient management to fulfill treatment preferences for hypertension by improving quality of life, avoiding problems, and lowering healthcare costs [2]. Self-management practices have been identified by numerous studies as one of the key components for managing high blood pressure. Despite the benefits of these actions, many hypertensive patients are currently reluctant to take these steps [11]. It may affected by a wide range of variables like age, educational status, job status, length of illness, empowering

components like self-care confidence and self-efficacy, understanding of hypertension, and social support[17].

The level of Self-management practice among hypertensive patients in Ethiopia was low 41.55% [18] but other study reports that the overall estimated adherence to self-management among Ethiopian hypertensive adult individual was 42.45% [19]. At Ayder Comprehensive Specialty Hospital, from five hypertensive patients only one patient had good self-management practice [12]. Three-fourth of hypertensive patients in Central Gondar Zone [20], Debre Birhan referral hospital [21], In West Arsi Zone [22], and Bishoftu General Hospital's outpatient department [23] had poor self-management practice . Only one third of the study participants at Mizan Tepi University Teaching Hospital [24] and at Durame and Nigist Elleni Mohamed Memorial General Hospitals in southern Ethiopia followed the suggested self-management [25]. Even in Addis Ababa half of hypertensive patients, had poor self-management practices towards hypertension [26].Not only are there illiterates in Ethiopia today, but educated people also struggle to use successfully self-management techniques [23].

Setting up an effective technique for the treatment of hypertension requires measuring the extent of self-management activity for hypertension as well as determinants. There are researches in Ethiopia on HTN self-management practices. However, the level of hypertension self-management practices and contributing elements have not been studied in Gurage Zone. This study was conduct to asses' self- management adherence and associated factors among hypertensive patients who are on follow up at Wolkite University specialized and teaching hospital, Gurage zone, SNNPR, Ethiopia.

1.3 Significance of study

Self-management is one of the most important ways to better prevention and control of hypertension. Most complication of hypertension occurs due to poor self-management.

These study findings provide information about the level of self-management adherence, factors that affecting self-management adherence among hypertensive patients at Wolkite University specialized and teaching hospital. The findings of this study might be used as reference data for other investigators interested in studying on related to this title. The data might be used for health care provider to give attention and develop programs to control hypertension and complication of it. This study give information about what things to be done to solve problems challenged in self-management implementation.

2. LITERATURE REVIEW

2.1 Overview of self-management

The maintenance of health, avoidance, and treatment of disease through a person is referred to as self-management adherence. It has been demonstrated to increase patient happiness, quality of life, reduce the need for emergency care, outpatient treatment, and urgent care branch appointments. The four pillars of self-care are maintaining a healthy lifestyle, addressing minor illnesses, handling chronic conditions, and caring for one self after being discharge from a hospital [13]. Self- -management has many different facets when it comes to managing ongoing illness [27]. Implementing the six recommendations for self-management behaviors that are thought to be important for controlling high blood pressure: 1. Following prescribed medication regimens; 2. engaging in physical activity; 3. eating a healthy diet low in fat and sodium, similar to the Dietary Approaches to Stop Hypertension (DASH); 4. Maintaining a healthy weight; 5. Reducing alcohol intake; and 6. Not smoke. Additionally, numerous studies have identified self-management practices as one of the key components for reducing high blood pressure [11].

2.2 Adherence

Although the majority of studies have concentrated on adherence to medicine, adherence also includes a wide range of health-related habits that go beyond simply taking prescribed medications. The participants at the WHO Adherence conference in June 2001 concluded that adherence refers to how closely a patient observes medical advice [28].

2.2.1 Adherence to self-management practice

In China about 81.1% of hypertensive patient avoid salt intake, 77.9% of the members refrained from drinking alcohol, 79.2% of them were nonsmokers and 51.9% adherence to physical activity on most days of the week [29]. In Bangladesh 65.5% did not adhere to a dietary modification [30]. In India, 60.6% of participants had average or good Self-management practices [31]. According to a research done in Western Nepal, more than 55% of participants were adherence to each self-management component [32]. In Iran, 12% avoided salt intake, 86.7% were non-smokers, and 24.5% were adherent to physical exercise, all participants were

adherence to alcohol abstains, and 39.2% controlled their weight [11]. However, the self-management practices varied in Jeddah, Saudi Arabia, from 31.2% to 83.7% for each of the self-management subscales [33]. According to a research conducted in a Nigerian tertiary hospital, 73.8% participant had high self-management practice[34]. A Systematic Review and Meta-Analysis study among Hypertensive Patients in Ethiopia shows that, average self-management levels among hypertensive patients in Ethiopia were 41.55%; in Tigray, 41.55%; in the Amhara region, 43.99%; in Harar, 47.19%; in Oromia, 20.3%; in Addis Abeba, 37.97%; and in the SNNPR, 56.77%; [18]. Another research that conducted with systematic review and meta-analysis shows that overall estimated adherence to self management among Ethiopian hypertensive adult individuals was 42.45%, 48.74% Adherence to physical activity, 77.68% Adherence to low alcohol intake, 86.38% Adherence to quitting or no smoking, 47.89 % Adherence to weight management, 51.99% Adherence to salt intake and 50.86 % dietary adherence [19]. In Nekemte, Oromia, (68.92%) had the greatest rate of hypertensive self-management usage [35]. In comparison, a survey conducted in 2019 at Ayder Comprehensive Specialized Hospital in Tigray Regional State found the lowest degree of hypertensive self-management practice at 20.3% [12]. In Dessie Town, 51% of hypertension patients had poor self-management adherence [36]. A research carried out in Harar Town public health services among the participants, 29.9% practiced high levels of self-management [37]. In addition, in Addis Abeba, 51.5% of individuals adhered to self-management [38]. In Durame and Nigist Elleni Mohamed Memorial General Hospitals in southern Ethiopia, only 27.3% adherent to the advised living changes, 16.1% performed physical activity for 30 minutes a day, 41.9% were excellent at managing their weight, 57.5% followed the advice to limit sodium in their diet, 87.9% participants had alcohol abstains the previous week, and 91.2% did not smoke[25].

2.2.2 Adherence to anti – hypertensive medication

A study conducted in Birmingham, UK (41.7%) respondents report best adherence to antihypertensive medication [39]. In china More than half of the sample (61.3%) were adherent to their anti hypertension remedy protocols [29]. A study conducted in Iran confirmed that 36.1 % were adherent to their drug regimen [11]. In Western Nepal 85% participant used medicine regularly [32]. In research investigations done in Ethiopia, 74.10% of subjects took their anti-

hypertensive medication as prescribed at Ayder Comprehensive Specialized Hospital [12]. Only 68% of 384 participants in total at the University of Gondar Comprehensive Specialized Hospital [14], 57.5% of participants in Harar Town [37], and 61.9% of participants in Jimma University Specialized Hospital [27] were adhered to their medicine. In addition, 48.1% of subjects at Jimma Medical Center were patients who had trouble adhering to their hypertension medication [16]. Anti-hypertensive medicine was typically more adhered to by hypertensive people in Ethiopia than other dietary or lifestyle changes. For instance, in Ayder Comprehensive Specialized Hospital in Tigray Regional State in 2019 the degree of hypertensive self-management practice was 20.3%, but 74.10% of the patients were adherent to anti-hypertensive medicine [12].

2.3 Factors associated with self-management of hypertension

A wide range of variables may also affect self-management practice against hypertension. These may include personal characteristics like age, schooling, job status, and health literacy, length of illness, empowering components like self-efficacy, understanding of hypertension, and social support [17]. Living in a divorced state, not having access to self-management knowledge, not having a place to exercise, and having a poor mindset toward self-management can also be risk factors for poor hypertension self-management practices [36].

2.3.1 Socio-demography

Age: According to a study done in Iran, hypertensive patients over the age of 60 engaged in more self-management activities of all kinds than those less than 50 years [11]. The majority of Ethiopian studies show a negative relationship between age and changes in self-management. A study conducted in Tigray, patients under 65 years of age exercise proper self-management 3.265 times more frequently than patients over 65 [12]. People over 65 are 41% less likely than individuals under 65 in Central Gondar Zone to adopt healthy self-management [20].Multivariable logistic regression study at Mizan Tepi University Teaching Hospital revealed that hypertensive patients over the age of 65 had a 61% lower likelihood of adopting the suggested self-management than those under the age of 65 [24]. At Durame and Nigist Elleni Mohamed Memorial General Hospitals in southern Ethiopia, patients with ages > 60 were 72% less likely to have good self-management practice than patients with ages under 65 [25] but in

Debre Birhan comprehensive specialized hospital, Patients with ages > 60 were 2.4 times more likely to adhere to self-management activities than those in the age group of 21-39 years [21] and in Bishoftu General Hospital, Respondents in the elderly group were found to be nearly three times more adherent than respondents in the young age group [23].

Gender: In Iran, women engaged in more self-management activities than men, and they were more likely to schedule frequent exercise than men. However, compared to males, girls had been much less adherent to maintain their non-smoking habits [11]. In Ethiopia, women adhered to effective self-management more frequently than males [18]. 56% of men and 61% of women in Harar stick to appropriate self-management [37]. In Tigray, only 5.6% of men and 14.7% of women practice adequate self-management, meaning that women are 2.254 times more likely than men to practice great self-management [12].

Religion: Muslim patients are more committed to self-management because they typically abstain from alcohol; according to a study conducted in Iran, not all Muslim patients drank alcohol [11].

Marital status: Married people demonstrated significantly better self-control and devotion to a low-sodium diet than single people, as well as greater self-control than divorced and single people [11]. In Harar town, the prevalence of appropriate self-management of hypertensive patients among married, single, and bereaved patients was 27.8, 40.9, and 41.9 respectively [37]. Divorced hypertensive patients in Dessie town practiced much less self-care compared to those who were unmarried [36].

Educational status: Possessing adequate information facilitates precise knowledge, which in turn encourages people to engage in precise self-management behaviors[3]. Lack of schooling and inadequate health literacy was risk factors for failing to follow the advised self-management procedures for hypertension [36]. In Ayder Comprehensive Specialty Hospital respondent's educational status of college and above had 4.205 times as many effective self-management practices as those who could not [12]. In Harar town, those with formal education make up 38.6% of those who exercise exact self-management, but those without formal education make

up only 17.8% [37]. In the comprehensive specialized hospital of Debre Birhan, hypertensive patients who had gone to school were 2.6 times more likely to exercise effective self-management than patients who had never gone to school [21]. However, in Bishoftu General Hospital, respondents with formal education were 48% less likely to adhere to self-management than respondents without formal education [23] and in southern Ethiopia's Durame and Nigist Elleni Mohamed Memorial General Hospitals, patients without formal education were twice as likely to practice good self-management as compared to those with formal education [25].

Work status: In Addis Ababa a better self-management practice was linked with being a merchant, government servant, or retired than being jobless [40], and unemployed respondents were found to be less likely to comply than those who were working [41].

2.3.2 Clinical Status

Time since diagnosis: The length of time since a hypertension diagnosis affects self-management. Some patients with an extended history of HTN were stick to self-management better than new patients. For instance, in Iran, individuals with a longer time since their diagnosis—more than 5 years—had higher commitment to physical activity than those with a shorter time—less than 5 years—since their diagnosis [11]. In Ayder Comprehensive Hospital, patients who had been ill for greater than four years were 3.124 times more likely to exercise exact self-management than patients who had been ill for less than two years [12]. Patients with a diagnostic duration of 5 to 10 years in the Central Gondar Zone are 1.93 times more likely to adopt healthy self-management practice than those with diagnosis tenure of less than 2 years [20]. Long-term hypertensive patients at Bishoftu General Hospital were nearly twice as likely to stick with patients than those with short-term diagnoses [23]. Fewer than two years, two to four years, and four or more years in Addis Ababa, respectively, had 12.1%, 38.9%, and 49.0% of adherents to excellent self-management [41].

Type and duration of anti hypertensive medication intake: HTN treatment involved following a routine at least 80% of the time. Patients with HTN are said to incur non-adherence expenses of 50% after one year and 85% after five years. One of the greatest difficulties for medical professionals is getting patients to follow the recommended routines [42].In Debre

Birhan comprehensive specialized hospital, < four years duration of anti-HTN treatment 82.7% of patient have good self care but >Four years only 17.3% of participant have good self-management [21].

Co-morbidities: Patients with co-morbidities in Central Gondar Zone were 53% less likely to adopt healthy self-management than patients without co-morbidities [20]. In eastern Go jam, patients with hypertension who did not have a co-morbid condition were 58.2% less prone to exercise poor self-management than those who did [43]. In Harar Town, Patients who had no co-morbidity were practice more self management (37.4%) and with co- morbidity had lower self management (23.4%) [37]. Patients without co-morbidities at Debre Birhan Comprehensive Specialized Hospital were nearly twice as likely to engage in self-management tasks than patients with co-morbidities [21]. However, adult hypertensive patients at Bishoftu General Hospital with co-morbidities were about twice as likely to follow suggested behavioral changes as those without co-morbidities [23].

2.3.3 Social support

In East of Go jam When compared to patients with excellent social support, hypertensive patients with poor social support were 2.587 times more likely to exercise poor self-management [43]. In eastern Ethiopia, With Strong social support 63.5% practice good self-management but with Poor social support only 39.9% practice good self-management [44]. Additionally, in Harar town, 61.4% of those with excellent social support and 38.6% of those with poor social support exercise effective self-management [37]. Patients who had support by their families or friends with hypertension at Debre Birhan Comprehensive Specialized Hospital were nearly three times more likely to engage in self-management activities than those who were not assisted [21]. In Jimma, patients with good social support had a good self-management rate of 51.9% and those with inadequate social support had a good self-management rate of 48.1% [16].

2.3.4 Self-efficacy

When compared to patients with poor self-efficacy (41.9%), patients with excellent self-efficacy were more likely to practice effective self-management (58.1%) in gojjam [43]. At Jimma medical center, when compared to patients with poor self efficacy, hypertensive patients with excellent self efficacy are two times more likely to practice effective self-management [16]. In Addis Ababa, it was discovered that individuals with high levels of self-efficacy were four times more likely to adhere self-management practice than those with low levels of self-efficacy [41].

2.4 Conceptual framework

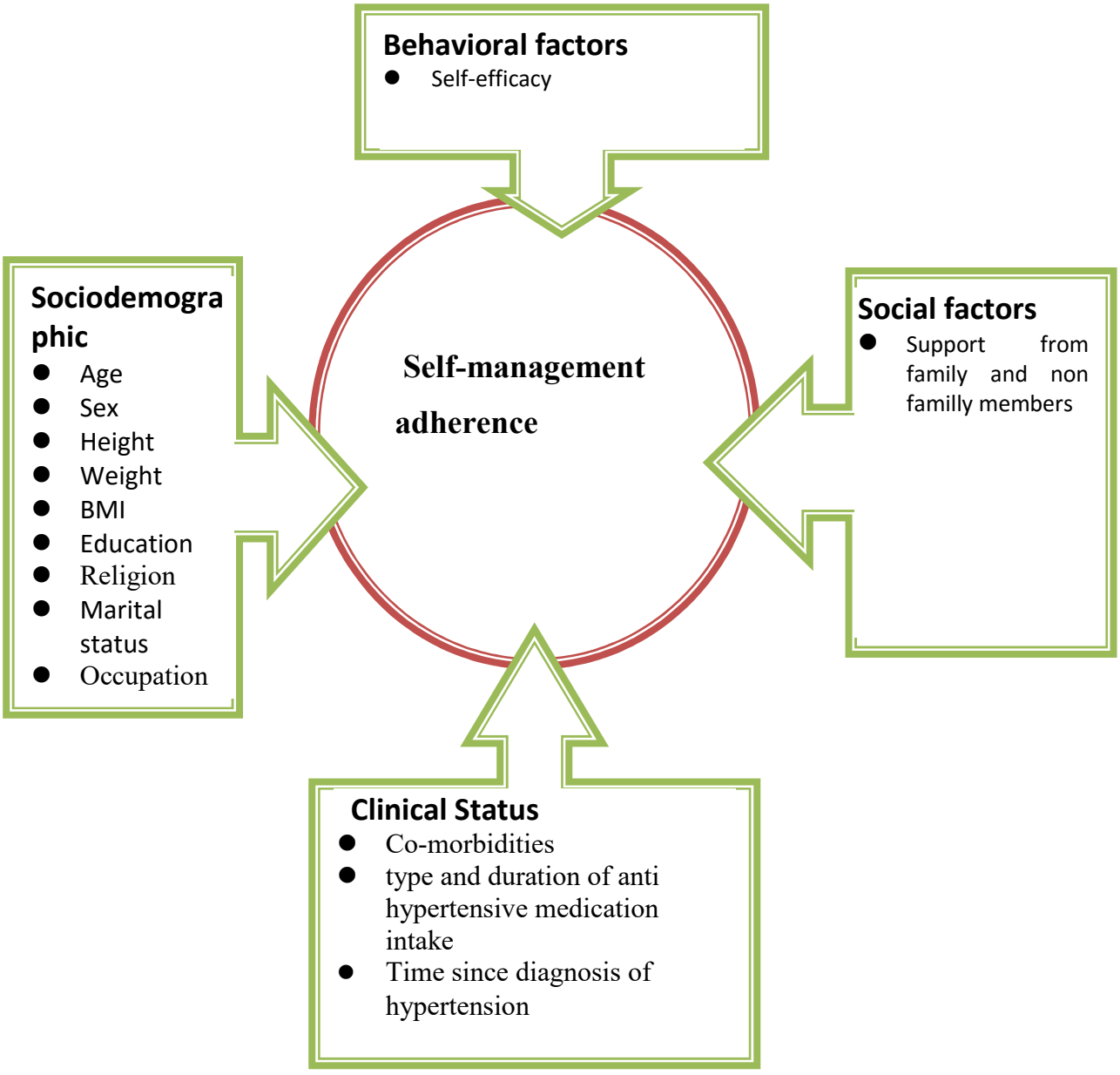

Figure 1: conceptual framework adapted from different literatures to assess self-management adherence and associated factors among hypertensive patients who are on follow up at Wolkite University specialized and teaching hospital, Gurage zone, SNNPR, Ethiopia[4, 18, 21-23, 26, 39, 41, 43, 44]

3. OBJECTIVES

3.1 General Objective

To assess the level of self-management adherence and associated factors among hypertensive patient who were on follow up at Wolkite University specialized and teaching hospital, Gurage zone, SNNPR, Ethiopia, 2023.

3.2. Specific Objectives

1. To determine the level of self-management adherence among hypertensive patient who were on follow up at Wolkite University specialized and teaching hospital, Gurage zone, SNNPR, Ethiopia, 2023.

2. To identify factors associated with self-management adherence among hypertensive patient who were on follow up at Wolkite University specialized and teaching hospital, Gurage zone, SNNPR, Ethiopia, 2023.

4. METHODS AND MATERIALS

4.1 Study Area and Study Period

This study conducted in Wolkite University specialized and teaching hospital, Gurage zone, SNNPR, Ethiopia, from may-20 to june-20/2023. It found in Wolkite town. Wolkite town is the capital of the Gurage zone, which are located 154 Km southwest of Addis Ababa and 260 Km from Hawassa. The Zone found in south central Ethiopia with location between 7^0 $40^{'}$ to 8^0 $30^{'}$ North and 37^0 $30^{'}$ to 38^0 $40^{'}$ East and covers an area of 5,932 km^2.Thies zone is home to the Gurage people. Based on the 2012 national census conducted by the Central Statistical Agency of Ethiopia (CSA), Gurage zone has a total population of 1,767,518.The zone is a fertile and mountainous administrative zone situated in the northern most tip of the Southern Nations, Nationalities and People's Region. It consists of 13 woreda and two town administrations (Butajira and Wolkite). In Gurage zone, there are seven hospitals. Five of the hospitals are primary hospitals, one general hospital, and the other one is a specialized comprehensive hospital, 79 health centers (7 are NGO HC), and 444 Functional health posts serving the total population in the zone. The study conducted in chronic follow up units of Wolkite University specialized and teaching hospital. This hospital has clinical departments including Emergency, medical, surgical, pediatric, gynecology/obstetric ward and one chronic follow up setting. Currently there were 359 hypertensive patients attending treatment per month.

4.2 Study Design

Hospital-based cross-sectional study design was employed.

4.3 Population

4.3.1 Target Population

All hypertensive patients who were on follow up at Wolkite University specialized and teaching hospital.

4.3.2 Study Population

All hypertensive patients who had followed up in Wolkite University specialized and teaching hospital during the study period.

4.4. Inclusion and Exclusion Criteria

4.4.1 Inclusion Criteria

- All hypertensive patients who were 18 years old and above and
- On follow up at least for 3 months.

4.4.2Exclusion Criteria

- Severely ill patient who were not able to respond to interviews during the data collection or
- Patients with cognitive impairment or
- Pregnant mothers with gestational age of 20 week and above until 12 week of post partum.

4.5. Sample Size Determination

The sample size was determined by using single population proportion formula with the following assumptions: P=26.9%, proportion for selfcare practice among hypertensive patient, which is takes from a study conducted at Bishoftu General Hospital **[23]**, 95% confidence level (Z=1.96), a margin of error, d = 5% (0.05), and considering 10 % non-response.

$$n= (Z_{a/2})^2(P)\ (1-P)/d^2$$

Where $Z_{a/2}$=standard normal deviation at confidence interval of 95% ($Z_{a/2}$=1.96)

P=Proportion of patients who adherence to self-management practices

d = margin of error (d = 5% = 0.05)

n=the required sample size

$$n_o= \frac{(1.96)^2(0.269)\ (1-0.269)}{(0.05)^2} = \frac{(3.8416)\ (0.269)\ (0.731)}{0.0025} = 302.16 = 302$$

Use correction formula because source population is 359.

$$n= no / (1+ (no/N))$$

Where n= minimum required sample size

n_o= minimum sample if population size was more than 10,000

N= total population size

n=302/ (1+(302/359)) =164.02 then,

164.02 + (164*10%) non-response rate =180.422

Therefore, final sample size for this study was 180.

4.6. Sampling Technique and Procedure

Systematic random sampling used to select the study samples. Initially, list of patients taken from the follow up unit registration book then, sampling interval (K) was calculated. 359÷180=1.99 so, the sampling interval was two (2). The first sample was selected randomly and 2 was randomly selected. Then select the other patient every 2 patients until getting the desired sample size of 180.

4.7 Variables of the study

4.7.1 Dependent Variable: Self-management adherence.

4.7.2 Independent variables

Socio demographic factors: age, sex, height, weight, body mass index, marital status, religion, educational status and occupation.

Clinical Status: Co-morbidities, type and duration of anti – hypertensive medication intake, Time since diagnosis of hypertension.

Behavioral variables: Self-efficacy.

Social factors: - Support from families and non-family members of the society.

4.8 Operational definition

Good self-management practice for anti hypertensive medication user: When respondents adherent to four or more of the six components of self-management practices (medication adherence, weight management, bodily activity, stopped smoking, reduce alcohol intake, and low salt diet) [21].

Good self-management practice for those did not prescribed antihypertensive medications: When respondents' adherent to three or more of the five components of self-management practices (weight management, bodily activity, stopped smoking, reduce alcohol intake, and low salt diet)

Poor self-management practice for anti hypertensive medication user: refers to the level of self-care practices when the respondents comply with less than four domains of self-management practices [21].

Poor self-management practice for those did not prescribed antihypertensive medications: refers to the level of self-care practices when the respondents comply with less than three domains of self-management practices.

Adherence: The extent to which a person's conduct (taking medicinal drug and executing way of life changes) corresponds with recommendations from health care providers[45].

Diet-related adherence: the state to which the respondent score 6 out of twelve healthy diet related practices questions [46].

Medication adherence: means that Participants followed the three recommendations of medication adherence on 7 out of 7 days[46].

Exercise related adherence: When participant score 14 from two exercise related question questions, each weights 7 points[46].

Smoking related adherence: Any respondents who report 0 days of cigarette smoke in the previous one week[46].

Alcohol consumption related adherence: Any respondents who report did not take any alcohol in the last 7 days or who did not drink at all[46].

Good weight management practices: respondents who score ≥ 40 from total weight management practices questions[46].

Co-morbidities: respondent with one or more disorder in addition to hypertension [43].

Social support: the help gained from family members and non-family members. In this study, the sum score ranges from 3 to 14, with high values representing strong levels and low values representing poor levels of social support. The OSSS-3 sum score can be operationalized into three broad categories of social support: a) 3–8 poor social support, b) 9–11 moderate social support, c) 12–14 strong social support[47].

Self-efficacy: is the confidence in one's ability to engage in a particular activity. In this study, participants considered as have good self-efficacy to cope with and control their disease, if they score 50% and above on the six-item Chronic Disease Self-Efficacy Scale[48].

Hypertensive patient: Systolic blood strain ≥140 mmhg and or / Diastolic blood pressure ≥ 90 mmhg or reported known antihypertensive drug users [21].

4.9 Data collection tools and techniques

The data was collected through face to face interview using pre tested structured questionnaire which was adopted and modified from different studies in the same and related topic. The questionnaire seeks information on socio-demographic, Clinical Status, Self-efficacy, Social support and life style modification related questions. Socio-demographic questionnaire contains nine items. Clinical Status, which is assess by four questions that is length of time since diagnosed and taking anti-hypertensive medications, types of anti-hypertensive medications and co morbidities[41].

The six items chronic disease self-efficacy scale used to measure elf-efficacy. Originally, each item contained a 10-point scale ranging from "not at all confident" to "totally confident". The alternatives modified to three (unconfident was scored 1, not sure was scored 2, confident was scored 3). The sum score ranges from 6 to 18. Participants considered as have good self-efficacy to cope with and control their disease, if they score 50% and above on the six-item Chronic Disease Self-Efficacy Scale [48].

Social support assessed with Oslo Social Support Scale. This Scale had three questions. The first question had four alternatives and the other two questions had five alternatives. The sum score ranges from 3 to 14. The OSSS-3 sum score categorized into three broad categories of social support: a) 3–8 poor social support, b) 9–11 moderate social support, c) 12–14 strong social support[47].

The levels of self-care practice measured by Hypertension self-care Activity Level Scale Effects (H-SCALE), which have six components: medication adherence, this part has three items the sum score ranges from zero to 21and patients considered adherent to medication when follow the three recommendations of medication adherence on 7 out of 7 days. Alcohol intake assessed by one single question ranging from zero - 7 days: did you drink alcohol in the last week?, respondents who report did not take any alcohol in the last 7 days or who did not drink at all are considered adherent. Weight management practices, this component assessed by 10 items. Items assessed agreement with weight control activities in the last 30 days. Each item has five choice

and based on a 5-point Likert scale ranging from strongly disagree 1; to strongly agree 5; with a sum ranging from 10 to 50. Respondents who score ≥ 40 from total weight management practices questions considered as adherent to weight management activities. Diet-related adherence measured using 12 items related to eating a healthy diet, avoiding salts while cooking and eating, and avoiding foods with high salt content in the last 7 day. The responses will be summed for all items to create a continuous variable, with possible scores ranging from 0 - 12. Scores of 6 and above were considered adherent. Adherence to exercise: which contains two items and each item weight 7. Responses range from 0 to 14. Participants who scored 14 out 14 considered adherent. Adherence to cessation of smoking, this part assessed by one questions, did you smoke a cigarette even just one puff in the past 7 days?. The Responses range from zero – seven. Any respondents who reported 0 days are considered nonsmokers, and the rest are classified as smokers[46].

The questionnaire was prepare in English language and translated into Amharic and it was translated back to English to check for consistency. The questionnaire had open end and multiple-choice questions.

4.10. Data collection

All data was collected by principal investigators at Wolkite university specialized hospital in chronic follow up unit.

4.11. Data quality assurance

A quality issue addressed by ensuring that the data generated is complete, reliable and accurate. To ensure the quality of data, we administered pre-test among 5% of the total sample size in Worabe comprehensive specialized hospital, Silt'e zone. Findings and experiences from the pre-test used to modify and reshape the data collection tool. The questionnaire was translate to Amharic language and back translated into English by another person who is good on both language to check for consistency.

4.12. Data processing and analysis

After the completion of the data collection process, the entire questionnaire checked for completeness, clarity and consistency. Then the data cleaned and entered to statistical package

for social sciences (SPSS) version 25.0 software for further analysis. Descriptive statistics used to describe the sample. Associations between independent and dependent variables were analyzed first using bivariate binary logistic regression analysis to identify factors that had associated with the outcome variable. Those independent variables which have p-value <0.25 were considered for multivariate analysis to test for independent association. Adjusted odds ratio and 95% confidence interval that not cross 1 and P-value of<0.05 were considered as statistically significant. The results expressed as percentages and frequencies and prepared by using tables and graphs.

4.13. Ethical considerations

Ethical clearance was obtained from Ethical Review Board of College of Medicine and Heath Science, department of Nursing, Wolkite University. We received letter of permission from Wolkite university specialized Hospital. The information sheet and consent provided for respondents to read for those who can read, whereas the interviewers read the paper for those respondents who could not read and informed verbal consent obtained from each study participant for the data collection. Before each interview, the aim of the study and possible benefit clearly explained for study participants. Issues of rights, privacy and confidentiality ensured during data collection period. Each respondent assured that the information provided was confidential and used only for the purpose of research. Participants have the right to participate or not and to withdraw at any time when they feel discomfort.

5. Results

5.1. Socio-demographic characteristics of respondents

One hundred seventy six patients were participated in this study making a response rate of 97.8%. Out of total respondents 103 (58.5%) of the respondents were males and the rest were female. The mean age of the respondents was 52.8 with (SD = ± 11.47) years. More than half 126 (71.6%) of the participants were ≤60 year of age. 40.9% (72) were orthodox by religion, 42% (74) Muslim and 12.5% (22) were protestant. More than two thirds, 121(68.8%) participants are currently married, one fifth, 34 (19.3%) participants cannot read and write and 48(27.3%) were farmer (Table 1).

Table 1: Socio-demographic characteristics of respondents among hypertensive patients who are on follow up at Wolkite University specialized and teaching hospital, Gurage zone, SNNPR, Ethiopia, 2023(n=176)

Variable	Category	Frequency	Percent
Gender	Male	103	58.5
	Female	73	41.5
Age	23-40	31	17.6
	41-60	95	54
	>60	50	28.4
Religion	Orthodox	72	40.9
	Muslim	74	42.0
	Protestant	22	12.5
	Catholic	8	4.5

BMI	<18.5	6	3.4
	18.5-24.9	136	77.3
	25-29.9	34	19.3
Marital status	Single	14	8
	Married	121	68.8
	Divorced	17	9.7
	Widowed	24	13.6
Level of education	Not able to read and write	34	19.3
	Read and write	62	35.2
	Primary	35	19.9
	Secondary	25	14.2
	College/University and above	20	11.4
Work status	Governmental employee	17	9.7
	Private employee	31	17.6
	Private business	56	31.8
	Non-employee	8	4.5
	Retired	16	9.1
	Farmer	48	27.3

5.2. Clinical characteristics of participants

Out of the total 176 respondents, 96 (54.5%) were hypertensive for four or more years. 6(3.4%) were on follow up without prescribed anti-hypertensive drug. 67(38.1%) were on hypertensive treatment for four or more years. Majority 149(84.1%) of respondents take one or two types of antihypertensive medications. 109 (61.9%) respondents have co morbid diseases. of which, 43(39.4%) had heart failure, 31(28.4%) had stoke, 20.18% had renal failure (Table 2).

Table 2: Clinical characteristics of respondents among hypertensive patients who are on follow up at Wolkite University specialized and teaching hospital, Gurage zone, SNNPR, Ethiopia, 2023

No	Question	Category	Frequency	Percent
1	Duration of diagnosis	Less than two year	27	15.3
		Two to four year	53	30.1
		Four or more year	96	54.5
2	Do you take anti-hypertensive medication?	Yes	170	96.6
		No	6	3.4
3	How long have you been taking anti-hypertensive medications?	Less than two year	30	17
		Two to four year	73	41.5
		Four or more year	67	38.1
4	How many types of anti-hypertensive medications do you currently take?	≤2	149	84.1
		>2	22	12.9
5	No co-morbidities	Yes	67	38.1
		No	109	61.9

5.3. Social support

Table 3: The response of respondents about social support among hypertensive patients who are on follow up at Wolkite University specialized and teaching hospital, Gurage zone, SNNPR, Ethiopia, 2023 (n=176)

No	Question	Category	Frequency	Percent
1	How many people are so close to you that you can count on them if you have great personal problems?	None	29	16.5
		1-2	37	21.0
		3-5	48	27.3
		5+	62	35.2
2	How much interest and concern do people show in what you do?	None	23	13.1
		Little	28	15.9
		Uncertain	31	17.6
		Some	40	22.7
		a lot	54	30.7
3	How easy is it to get practical help from neighbors if you should need it?	very difficult	34	19.3
		Difficult	29	16.5
		Possible	31	17.6
		Easy	44	25
		very easy	38	21.6

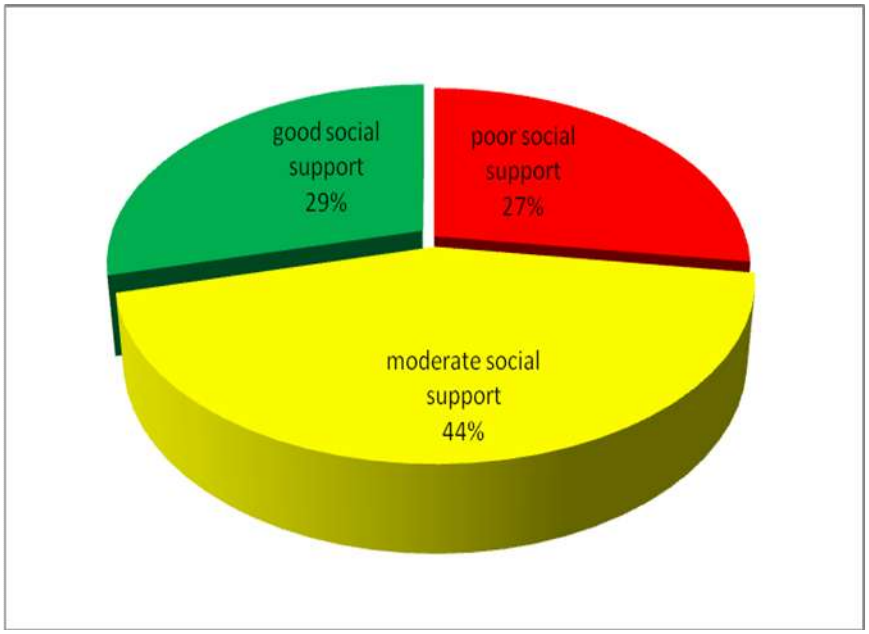

Figure 2: Social support of respondents among hypertensive patients who are on follow up at Wolkite University specialized hospital, Gurage zone, SNNPR, Ethiopia, 2023 (n=176)

5.4. Self-efficacy

Table 4: The response of respondents about self-efficacy among hypertensive patients who are on follow up at Wolkite University specialized hospital, Gurage zone, SNNPR, Ethiopia, 2023 (n=176)

No	Question	Category	Frequency	Percent
1	How confident are you that you can keep the fatigue caused by your disease from interfering with the things you want to do?	Unconfident	79	44.9
		Not sure	33	18.8
		Confident	64	36.4
2	How confident are you that you can keep the physical discomfort or pain of your disease from interfering with the things you want to do?	Unconfident	69	39.2
		Not sure	45	25.6
		Confident	62	35.2
3	How confident are you that you can keep the emotional distress caused by your disease from interfering with the things you want to do?	Unconfident	69	39.2
		Not sure	46	26.1
		Confident	61	34.7
4	How confident are you that you can keep any other symptoms or health problems you have from interfering with the things you want to do?	Unconfident	67	38.1
		Not sure	47	26.7
		Confident	62	35.2
5	How confident are you that you can do the different tasks and activities needed to manage your health condition to reduce you need to see a doctor?	Unconfident	65	36.9
		Not sure	52	29.5
		Confident	59	33.5
6	How confident are you that you can do things other than just taking medication to reduce how much you illness affects your everyday life?	Unconfident	84	47.7
		Not sure	36	20.5
		Confident	56	31.8

Out of 176 respondents 65(36.9%) had poor and 111(63.1%) had good self-efficacy (Figure 3).

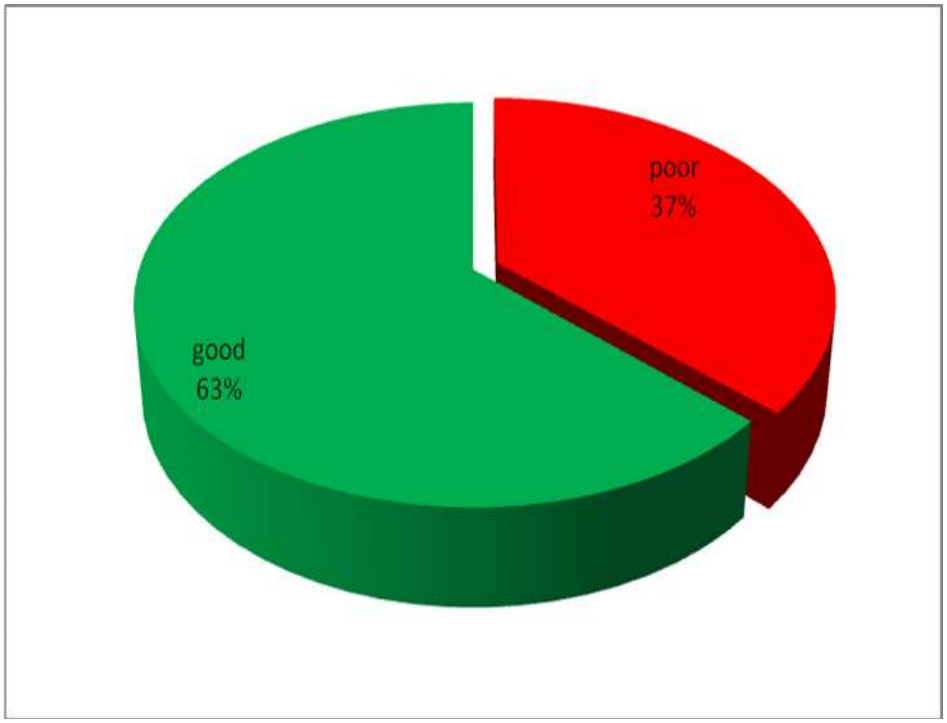

Figure 3: self-efficacy of the respondent among hypertensive patients who are on follow up at Wolkite University specialized hospital, Gurage zone, SNNPR, Ethiopia, 2023 (n=176)

5.5. Adherence to self-management practice

In this study, 61(34.7%) respondents were adherent to good self-management practice. 140 (82.4%) of the respondents were adherent to medication related recommendations, 76 (43.2%) of the respondents were adherent to dietary modification, 95 (54%) of the respondents were adherent to exercise, 80.7% were adherent to cessation of smoking,73.3% were adherence to moderation of alcohol consumption and 39.2% of the respondents were adherence to Weight Management practice (Table 5).

Table 5: Adherence to lifestyle modifications among hypertensive patients who are on follow up at Wolkite University specialized hospital, Gurage zone, SNNPR, Ethiopia, 2023 (n=176)

Variable	Category	Frequency	Percent
Adherence to medications	Non adherent	30	17.6
	Adherent	140	82.4
Adherence to dietary modifications	Non adherent	100	56.8
	Adherent	76	43.2
Adherence to exercise	Non adherent	81	46
	Adherent	95	54
Adherence to cessation of smoking	Non adherent	34	19.3
	Adherent	142	80.7
Adherence to moderation of alcohol consumption	Non adherent	47	26.7
	Adherent	129	73.3
Adherence to Weight Management	Non adherent	107	60.8
	Adherent	69	39.2
Adherent to self-management practice	Non adherent	115	65.3
	Adherent	61	34.7

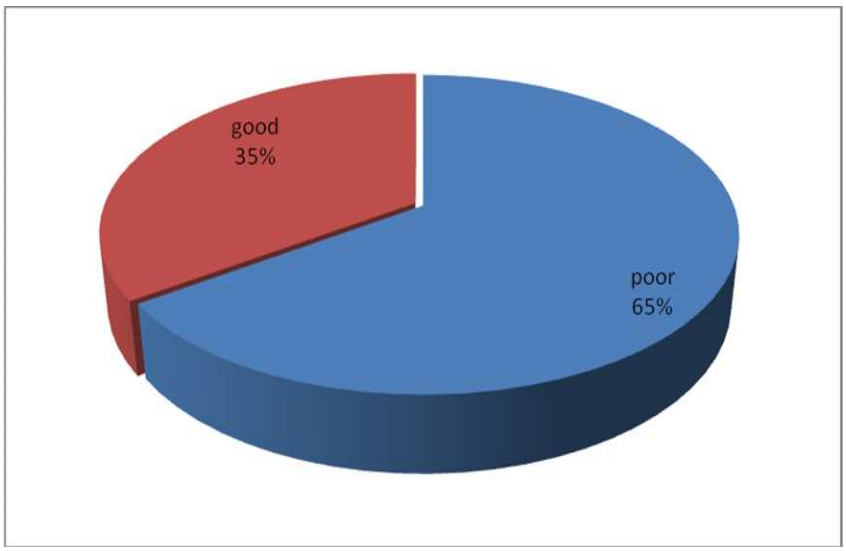

Figure 4: adherence to self-management practice among hypertensive patients who are on follow up at Wolkite University Specialized hospital, Gurage zone, SNNPR, Ethiopia, 2023

5.6. Factors associated with self-management of hypertension

Overall, the level of self-management practice among hypertensive patients was 34.7% (95%CI: 26.2-40.3%). Thirteen variables were included in the bivariable binary logistic regression model. Of which level of education, work status, self-efficacy and social support were candidate for multivariable binary logistic regression. In the multivariable logistic regression analysis from five variables only two variables were statistically significant. Level of education and Self-efficacy of the study participants were statistically associated with self-care practice.

Respondents with educational level of college/university and above were about 11.863 times (AOR= 11.863, 95% CI: 2.547, 55.259, P=0.002) more likely to engage in good hypertension self-management practices as compared to those respondents that did not able to read and write. Participants who had good self-efficacy were about 3.176 more likely to engage in good hypertension self-management practices as compared to those respondents who had poor self-efficacy (AOR=4.173, 95% CI: 1.210, 8.338, p=0.019).

Table 6: Association of adherence to self-management practice by selected characteristics, among hypertensive patients in Wolkite University specialized hospital, Gurage zone, SNNPR, Ethiopia, 2023 (n=176)

Variable	Categories	Self care adherance		COR(95%CI)	P-value	AOR(95%CI)	P-value
		Poor N (%)	Good N (%)				
Level of Education	not able to read and write	26(76.5%)	8(23.5%)	1		1	
	read and write	44(71%)	18(29%)	1.330(0.507,3.485)	0.562	1.413(0.469, 4.258)	0.540
	Primary	25(71.4%)	10(28.6%)	1.30(0.442, 3.827)	0.634	0.930(0.247, 3.511)	0.915
	Secondary	14(56%)	11(44%)	2.554(0.834,7.816)	0.1	2.796(0.721, 10.842)	0.137
	college/university and above	6(30%)	14(70%)	7.583(2.190,26.258)	0.001	**11.863(2.547, 55.259)***	0.002
Work status	Government Employee	10(58.8%)	7(41.2%)	1		1	
	Private employee	19(61.3%)	12(38.7%)	0.902(0.270, 3.015)	0.867	1.214(0.285, 5.179)	0.796
	private business	28(50%)	28(50%)	1.429(0.476, 4.286)	0.525	1.790(0.444, 7.222)	0.414
	non employee	5(62.5%)	3(37.5%)	0.857(0.152, 4.819)	0.861	0.375(048, 2.910)	0.348
	Retired	12(75%)	4(25%)	0.476(0.108, 2.108)	0.328	0.381(0.060, 2.412)	0.305
	Farmer	41(85.4%)	7(14.6%)	0.244(0.070,0.856)*	0.028	0.345(0.076, 1.572)	0.169

Self-efficacy	Poor	53(81.5%)	12(18.5%)	1		1	
	Good	62(55.9%)	49(44.1%)	0.286(0.138,0.595)*	0.001	**3.176 (1.210, 8.338)***	0.019
Social support	Poor	36(75%)	12(25%)	1		1	
	Moderate	54(70.1%)	23(29.9%)	1.278(0.565, 2.888)	0.556	1.529(0.557, 4.198)	0.410
	Good	25(49%)	26(51%)	3.120(1.329, 7.324)*	0.009	1.747(0.600, 5.084)	0.306

- **AOR= statistically significant at p<0.05*

6. Discussion

This study finding revealed that 34.7% (CI; 26.2-40.3) of the patients had good self-management practices. This finding was higher compared to a study done in Debre Birhan referral hospital, only 24.4 % [21], In Central Gondar Zone 24.2% [20], in Tigray 20.3%[12], In west Arsi zone 25.2% [22] participants practices good self-management. The discrepancy might be related to improvement of awareness about chronic illness and its management because of the prevalent of lifelong diseases increase in Ethiopia and may be related to increment of the number of health facilities with health worker in Ethiopia. This finding in line with study done in Harar Town 29.9% [37], Bishoftu General Hospital 26.9% [23], Durame and Nigist Elleni Mohamed Memorial General Hospitals in southern Ethiopia 27.3% [25]. Mizan Tepi University Teaching Hospital 33.3% [24] of patients practiced recommended life style modification. This finding was lower than India 60.6% [31], western Nepal 55% [32]. This discrepancy might be because patients were from developed country with good access to adequate counseling from care providers and enough resource to care themselves. In a Nigerian 73.8% participant had high life style modification [34]. This gap might be related to convenience sampling technique and small sample size (106) in Nigeria and there was difference of assessment tool in Nigeria use adaptation of the validated tool used for assessment of self-management of diabetes. In addition, in Addis Abeba, 51.5% of individuals adhered to lifestyle modification [38].It may be related to easily accesses to health service, transport in Addis Ababa and 27.3 % of participants were farmer in this study. In Gondar University, specialized hospital (59.4%) had good self-management [14]. This is may be related with large (384) sample size and quality of patient care in Gondar University specialized hospital.

In this, study 43.2% adherence to dietary modifications. This finding is lower than study from China 81.1% [29]. This discrepancy may be due to higher level of socio economic status in China but higher than Iran, 12% avoided salt intake [11]. This may relate to large sample size (1836) and participant from rural health centers and mixed sampling of probable and non-probable. This finding established that 82.4% respondents were adherence to medications. This finding is supported by Western Nepal 85% [32] and in Tigray 74.10% [12] participant used

medicine regularly. In this, study 54% respondents' adherence to exercise. This finding was closed to China 52% [29] and in Ethiopia 48.74% [19] adherence to physical activity.

This study shows that 80.7% adherence to cessation of smoking. It was supported by study done in China 79.2% [29], in Addis Ababa 85.9%[41] but higher than Gondar 70.8% [14]. This may relate to cultural difference. From 176 participant 73.3% were adherence to moderation of alcohol consumption. This finding lower than Iran 100% [11].It may relate to all participant were Muslim in Iran, they typically abstain from alcohol. Supported by study done in Debirebrhan 71.9% [21], Gondar 72% [14] and Addis Ababa 74.8%[41]. Above one third of respondents (39.2%) were adherence to Weight Management. This result closed to study that done in Iran 39.2% [11] and Durame and Nigist Elleni Mohamed Memorial General Hospitals in southern Ethiopia 41.9% [25].

Respondents with educational level of college/university and above were about 11.863 times (AOR= 11.863, 95% CI: 2.547, 55.259, P=0.002) more likely to engage in good hypertension self-management practices as compared to those respondents that did not able to read and write. This finding is in line with studies from Ayder Comprehensive Specialty Hospital [12] and Debre Birhan[21]. The possible reason might be related to level of understanding of disease process, patients with higher education level may had good knowledge and easy to read and understand different literatures about management of hypertension and necessity of self-management practice.

Participants who had good self-efficacy were about 3.176 more likely to engage in good hypertension self-management practices as compared to those respondents who had poor self-efficacy (AOR=4.173, 95% CI: 1.210, 8.338, p=0.019). This is consistent with finding from Jimma[16] and Addis Ababa [41]. The reason might be patient with good self-efficacy may be confident to practice good self-care.

7. Strengths and limitations

Strengths

The strength of this study was considering both components of HTN self-management; medication and lifestyle modifications, which were mostly studied separately in other studies.

Limitations

There may have been recall bias and social desirability bias since the self-management practices of the study participants were based on self-reports.

8. Conclusion and Recommendation

8.1 Conclusion

This study reported a lower level of self-management practice by hypertensive patients; only 34.7% of the respondents had good hypertension self-management practices. Educational level and self-efficacy were factors identified having had statistically significant association with the self-care practice.

8.2 Recommendation

For Wolkite University specialized hospital

We recommend to provide training for health care providers about self- management practice compliance specifically working in chronic follow up unit.

For Health, care providers

- ✓ Counsel and provide health education for the hypertensive patient /family on all recommended lifestyle recommendations integrated with pharmacological management at the time of follow up day.
- ✓ Monitoring and evaluating self- management practices at the time of follow up day.

Future researchers:

Study at gurage zone level to know the level of self-management practices and to identify more variables that may determine the level of self-management practices of chronic hypertensive patients particularly with cohort study design with qualitative analysis to identify factors having a direct risk on the self-management practices of hypertensive patients.

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ANNEX 1: Information sheet and Consent form:

Hello. My name is_____ I am working as a data collector for the study being conducted in this Hospital by Derbie Belayhun, Fekredin Nuri and Ramato Abdela, a under graduate student from Welkite University, College of Medicine and Health Sciences, department of Nursing. I kindly request you to give me your attention to explain you about the study and being selected as the study participant. I am conducting a study on adherence to self-management and associated factors among hypertensive patients who are on follow up at Wolkite University Specialized and teaching hospital, Gurage zone, SNNPR, Ethiopia, 2023. The findings of this study will be used by the hospital to base their rational decision to develop appropriate strategies to prevent the occurrence of complication related to hypertension and for purpose of partial fulfillment of the requirement for bachelor degree in Nursing. I will be interviewing you using a questionnaire to provide me with pertinent data that is helpful for the study. There are 51 questions to answer where I will fill the questionnaire by interviewing you. The interview will take about 30 minutes, so I kindly request you to spare me this time for the interview. There will be no any risk associated during data collection. There would not be any direct payment for participating in this study. However, the findings from this research may reveal important information for the local health planners. Your name will not be written in this form and the information you give is kept confidential. If you do not want to answer, all or some of the questions you do have the right to do so. However, your support and willingness in responding to my questions during the survey have paramount importance for the success of my study.

Thank you very much for your cooperation and assistance in this endeavor.

Now, do you want to ask me anything about the survey?

Would you be willing to participate?

If yes, continue interviewing

If No, thank and stop interviewing

How long have you been starting follow up?

If< 3months, thank and stop interviewing.

If ≥3months, continue interviewing

Interviewer name: _____ Signature: _____ Date: _____

Consent form

I have well understood the condition stated above. I understand that there is no risk on participating and no incentives are given upon my participation in the study. Therefore, I am willing to participate in the study.

Name of the interviewer: _____

Sign of the interviewer: _____

Date of interview_____

Sign of participant_____

Address of principal investigators:

Mobile No: +251-928-363525

Email: derbiebelayhun46@gmail.com

Annex 2: Questionnaire (English version)

Questionnaire identification number_____

PART- 1 – Socio-demography: This section is about sociodemographic characteristics of the respondent. Please tick (√) on the responses from the given alternative.

No	**Questions**	**Category**
1	Sex of the respondent	**A)** Male ☐ **B)** Female ☐
2	Age of the respondent's in years?	_____Years.
3	Religion	**A)** Orthodox ☐ **B)** Muslim ☐ **C)** Protestant ☐ **D)** Catholic ☐ **E)**Other (Specify) _____
4	Height of the respondent in meter	_____ meters
5	Weight of the respondent in kilogram	_____Kg
6	BMI of the respondent	_____ Kg / M^2
7	Marital status	**A)** Single ☐ **B)** Married ☐ **C)** Divorced ☐ **D)** Widowed ☐
8	Level of education	**A)** Not able to read and write ☐ **B)** Read and write ☐ **C)** Primary ☐ **D)** Secondary ☐

		E) College/University and above ☐
9	Work status	**A)** Governmental employee ☐ **B)** Private employee ☐ **C)** Private business ☐ **D)** Non-employee ☐ **E)** Retired ☐ **F)** Other (Specify) _____

PART -2 – Clinical Status

This section is about the current condition of the respondent. Pose the questions to the respondent and fill the given answer on the space provided.

No	**Questions**	**Category**	**Skip**
1	How long has it been since you were diagnosed with hypertension?	_____.	
2	Do you take anti-hypertensive medication?	A) yeas B) NO ⟶	5
3	How long have you been taking anti-hypertensive medications?	_____.	
4	How many types of anti-hypertensive medications do you currently take?	_____.	
5	Do you have any of these co morbidities?	**A)** No co-morbidities ☐ **B)** Heart failure : Yes ☐ No☐ **C)**Renal failure : Yes ☐ No☐ **D)** Stroke : Yes ☐ No☐ **E)** Coronary artery disease : Yes ☐ No☐ **F)** Other(Specify)_____	

PART-3 – Self efficacy

This section is concerned with respondent's self-efficacy based on the six items Chronic Disease Self-Efficacy Scale to deal with hypertension. Please tick (√) on your response. Please elaborate the following possible answers for the respondent.

- **Unconfident**– if the respondents have no self-assurance
- **Not sure**– if the respondent is not sure about the answer to the question
- **Confident**– if the respondent is self-assured to cope up with disease process

No	**Questions**	**Unconfident(1)**	**Not sure(2)**	**Confident(3)**
1	How confident are you that you can keep the fatigue caused by your disease from interfering with the things you want to do?			
2	How confident are you that you can keep the physical discomfort or pain of your disease from interfering with the things you want to do?			
3	How confident are you that you can keep the emotional distress caused by your disease from interfering with the things you want to do?			
4	How confident are you that you can keep any other symptoms or health problems you have from interfering with the things you want to do?			
5	How confident are you that you can do the different tasks and activities needed to manage your health			

	condition to reduce you need to see a doctor?			
6	How confident are you that you can do things other than just taking medication to reduce how much you illness affects your everyday life?			

PART -4 – Social support

This section is about support gained from family and non-family members based on Oslo Social Support Scale. Please tick (√) on your response.

No	Questions	Responses
1	How many people are so close to you that you can count on them if you have great personal problems?	1='none' 2='1–2' 3='3–5' 4='5+'
2	How much interest and concern do people show in what you do?	1='none' 2='little' 3='uncertain' 4='some' 5='a lot'
3	How easy is it to get practical help from neighbors if you should need it?	1=very difficult' 2='difficult' 3='possible' 4='easy' 5='very easy'

Part -5 – Adherence to medications of hypertensive patient measured with Hypertension scale (H-scale). Please tick (√) on tick on the response given by the respondent as an answer.

No	How many of the past 7 days did you:	Answer		Skip
		(Yes=1)	(No= 0)	
0	Do you take anti hypertensive medication?	Yeas	No ⟶	**Part 6**
1	Take your blood pressure pills?			
2	Take your blood pressure pills at the same time every day?			
3	Take the recommended number of blood pressure pills?			

PART -6 – Adherence to dietary modifications measured with Hypertension scale (H-scale)

This section is about adherence to dietary modifications. Please tick (√) on the responses from the given alternative.

No	How many of the past 7 days did you:	Answer	
		(Yes=1)	(No= 0)
1	Follow a healthy eating plan?		
2	Eat potato chips, salted nuts, or salted popcorn?		
3	Eat processed meats such as ham?		
4	Eat smoked meats or smoked fish?		
5	Eat pickles, olives, or other vegetables in brine?		
6	Eat ≥5 servings of fruits and vegetables?		
7	Eat frozen prepared dinners or frozen pizza?		
8	Eat store bought or packaged bakery goods?		
9	Salt your food at the table?		
10	Add salt to food when you're cooking?		
11	Eat fried foods such as chicken, fish?		
12	Avoid eating fatty foods?		

PART 7 –adherence to exercise measured with Hypertension scale (H-scale)

This section is about adherence to exercise. Please tick on the responses from the given alternative.

No	How many of the past 7 days did you:	Answer	
		(Yes=1)	(No= 0)
1	Do at least 30 minutes total of physical activity?		
2	Do a specific exercise activity (such as swimming, walking, or biking) other than what you do around the house or as part of your work?		

Part -8 – Adherence to cessation of smoking measured with Hypertension scale (H-scale)

This section is about adherence to cessation of smoking. Please tick on the responses from the given alternative.

	How many of the past 7 days did you:	Answer	
		(Yes=1)	(No= 0)
1	Did you smoke a cigarette or cigar, even just one puff?		

Part 9 – Adherence to moderation of alcohol consumption: measured with Hypertension scale (H-scale).

Please tick (√) on tick on the response given by the respondent as an answer.

No	How many of the past 7 days did you:	Answer	
		(Yes=1)	(No= 0)
1	Did you drink alcohol?		

Part 10: Adherence to Weight Management measured with Hypertension scale (H-scale)

No	In order to lose weight or maintain my weight	**Strongly disagree (1)**	**Disagree (2)**	**Neutral (3)**	**Agree (4)**	**Strongly agree (5)**
1	I am careful about what I eat					
2	I read food labels when I grocery shop.					
3	I exercise in order to lose or maintain weight					
4	I have cut out drinking sugary sodas and sweet tea.					
5	I eat smaller portions or eat fewer portions					
6	I have stopped buying or bringing unhealthy foods into my home.					
7	I have cut out or limit some foods that I like but that are not good for me.					
8	I eat at restaurants or fast food places less often.					
9	I substitute healthier foods for things that I used to eat.					
10	I have modified my recipes when I cook.					

THANKS FOR YOUR COOPERATION!

Annex 3፡ Amharic version of information and consent sheet

የመረጃ መግልጫ ቅፅ

የተከበሩ ተሳታፊያችን እንደምን ኣደሩ/ዋሉ? ስሜ.....እባላለሁ።አሁን እየሰራሁኝ ያለሁት በዚህ ሆስፒታል ውስጥ ለሚደረገው ጥናት መረጃ ሰብሳቢ ሆኜ ለ ደርቤ በላይሁን፡ ፈክረዲን ኑሪ ና ራመቶ አብደላ በወልቂጤ ዩኒቨርሲቲ በ በጤናና ህክምና ሳይንስ ኮሌጅ በድግሪ ደረጃ ለመመረቅያ የሚሆን ለሚያካሂዱት ጥናት ነው።ስለዚህ እንዴት ተሳታፊ መሆን እንደቻሉና ስለጥናቱ በተመለከተ ማብራሪያ እንድሰጥዎት የተወሰነ ጊዜ እንዲሰጡኝ በአክብሮት እጠይቃለሁ።

የጥናቱ ርእስ፡ በወልቂጤ ዩኒቨርሲቲ ስፔታላይዝድ ሆስፒታል ውስጥ የደም ግፊት ታካሚዎች ላይ ራስን የመንከባከብ ተግባራት እና ተጓዳኝ ምክንያቶቻቸው ላይ የሚያተኩር ነዉ ።

የጥናቱ ዓላማ፡ ከዚህ ጥናት የሚገኘው ክፈፍተኛ የደም ግፊት ያለባቸው ሰዎች ራስን የመንከባከብ ሥራ በየእለት ተግባራቸው አያከናወኑ ነው? አይደለም? ራሳቸውን የመንከባከብ ተግባር አንዳይሰሩ የሚያደርጋቸው ምክንያቶች ምንድን ናቸው? እንዲሁም ከዚህ ጥናት የሚገኘው ዉጤት የሚመለከታቸው የጤና ባለሙያዎች እና በከፍተኛ የደም ግፊት እና ተተላላፊ ባልሆኑ በበሽታዎች ዙርያ ሌሎች የሚሰሩ ድርጅቶች ትክክለኛውን ያአሰራር ቅየሳ አንዲይዙ ብቻ ሳይሆን በከፍተኛ የደም ግፊት ሁኔታ ዉስጥ ያሉ ሰዎች ራሳቸው ያለመንከባከብ የሚያስከትለው ችግር በተግባር አንድፈቱ ያግዛል :: በተጨማሪም የዚህ ጥናት አላማ ለተመራማሪወቹ በነርሲንግ የድግሪ ትምህርታቸውን ለማጠናቀቅና የመመረቅያ ፅሁፍ ለማዘጋጀት ይጠቅማል።

የጥናቱ ሂደትና ግዜ ፡ለጥናቱ የሚያገለግሉና መረጃ ሊሰጡ የሚችሉ ጥያቄዎች ተዘጋጅተዋል እነዚህ ጥያቄዎች ጠቅላላ 51 ሲሆኑ በቃለምልልስ ጥያቄዎቹን ለመመለስ በግምት 30 ደቂቃ ይፈጃል። ስለዚህ አሁንም በድጋሚ ጊዜዎትን እንዲሰጡኝ በአክብሮት እጠይቃለሁ።

ሊደርስ የሚችል አድጋ ና የሚገኝበት ጥቅም፡ በዚህ ጥናት ውስጥ አደጋ የሚያደርስ ድርጊት የለም።ይህ ጥናት ለበሽተኞች ሌዩና ቀጥተኛ የሚባሌ ጥቅም የለውም።ይሁን እንጂ የጥናቱ ውጤት ሁለም የደም ግፊት ህመምተኞች ስለህክምናቸው ሁኔታ በአግባቡ ስለመከታተላቸው ለማወቅ ይረዳል ።

ምስጢር አጠባበቅ ና የተሳታፊው መብት ፡ የሚሰበሰበዉ መረጃ ሙሉ በሙሉ በሚስጥር የሚያዝ መሆኑን አረጋግጥሎታለሁ። 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 እንዲመልሱልኝ እጠይቅዎታለሁኝ።

ጥያቄ አለዎት?

በጥናቱ ውስጥ ለመሳተፍ ፍቃደኛ ከሆኑ እና 3 ወር ወይም ከሶስት ወር በላይ ክትትል ላይ ከሆኑ ወደ ሚቀጥለው ገፅ ይለፉ። ከላይ የተጠቀሰውን መረጃ በደንብ ተገንዝቢያለሁ። በዚህ ጥናት በመሳተፌ የማገኘው ጥቅማጥቅምም ሆነ የሚደርስብኝ ጉዳት አለመኖሩን ስለተረዲሁ በጥናቱ ላይ ለመሳተፍ ፌቃደኝነቴን በፉርማዬ አረጋግጣለሁ።

የተጠያቂው ፊርማ _____

ጠያቂ ስም ---------- ፊርማ----------

አድራሻ፡ ስለጥናቱ አካሄድ ወይም ስለ ጥናቱ መጠይቅ ወይም ደግሞ ጥናቱን በተመለከተ ማንኛውም ጥያቄ ካሎት የሚከተሉትን አድራሻ ይጠቀሙ።

ደርቤ በላይሁን ፡ **ሞባይል፡** +251-928-363525

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Annex 4፡ Questionnaire (Amharic version)

የመጠይቅ መለያ ቁጥር _____

ክፍል 1 - የተጠያቂ ማህበራዊ መረጃ

የሚከተሉትን ጥያቄዎች በመጠየቅ አማራጭ መሌሶች ፊት ለፊት ባለው ሳጥን ላይ ምልክት ያድርጉ። አማራጭ መልስ ለሌላቸው ጥያቄዎች የተሰጠው ክፍት ቦታ ላይ የተጠያቂውን መልስ ያስቀምጡ።

ቁጥር	ጥያቄዎች	አማራጭ መልስ
1	የተሳታፊው ፆታ	1）ወንድ ☐ 2）ሴት ☐
2	ዕድሜ	———ዓመት
3	ኃይማኖት	1）ኦርቶዶክስ ☐ 2） ሙስሊም ☐ 3）ኘሮቴስታንት ☐ 4） ካቶሉክ ☐ 5）ሌላ————
4	የተሳታፊው ቁመት	————ሜ
5	የተሳታፊው ክብደት	————ኪግ
6	የተሳታፊው BMI	————ኪግ/ሜ^2
7	የትዳር ሁኔታ	1 ）ያላገባ ☐ 2 ）ያገባ ☐ 3 ） የፈታ ☐ 4 ） በሞት የተለየ ☐
8	የትምህርት ደረጃ	1）ማንበብና መፃፍ የማይችል ☐ 2 ）ማንበብና መፃፍ ☐ 3 ）የመጀመሪያ ደረጃ ☐ 4） የሁለተኛ ደረጃ ☐ 5）ኮሌጅ/ዩኒቨርስቲ እና ከዚያበላይ ☐
9	የስራ ዓይነት	1) የመንግስት ተቀጣሪ ☐ 2) የግሌ ተቀጣሪ ☐ 3)የግሌ ሥራ ☐ 4)ስራ የሌለው /ላት ☐ 5)ጡረተኛ ☐ 6)ሌላ————

ክፍል 2 - አጠቃላይ የጤና ሁኔታ

ይህ ክፍል የተጠያቂውን አጠቃላይ የጤና ሁኔታ ላይ ያተኩራል።የሚከተለትን ጥያቄዎች በመጠየቅ አማራጭ መሌሶች ፊት ለፊት ባለው ሳጥን ላይ ምልክት ያድርጉ። አማራጭ መልስ ለሌላቸው ጥያቄዎች የተሰጠው ክፍት ቦታ ላይ የተጠያቂውን መልስ ያስቀምጡ።

ቁጥር	ጥያቄዎች	መልስ	ዝለል
1	የደም ግፊት እንዳለብሆ ካወቁ ምን ያህሌ ጊዜ ሆኖታል?	_____	
2	ለደም ግፊት የሚሰጡ መድሀኒቶችን መውሰድ ጀምረዋል ?	1) አዎ 2) የለም →	5
3	ለደም ግፊት የሚሰጡ መድሀኒቶችን ለምን ያህል ጊዜ ወሰዱ?	_____	
4	ስንት አይነት የደም ግፊት መድሀኒቶችን ይወስዳሉ?	_____	
5	ሌላ የታወቀ ተያያዥ በሽታ አለቦት?	1) ምንም የለም ☐ 2) የልብ ድካም: አለ☐ የለም ☐ 3) የኩላሊት በሽታ: አለ☐ የለም ☐ 4) የአእምሮ በሽታ: አለ ☐ የለም ☐ 5) የልብ ደም ቧንቧ መጥበብ: አለ ☐ የለም ☐ 6) ሌላ ካለ ይጠቀስ _____	

ክፍል - 3 - የተጠያቂውን በራስ የመተማመን ሁኔታ

ቀጥሎ የቀረቡት ጥያቄዎች ከደም ግፊት በሽታ ጋር በተያያዘ የተሳታፉውን በራስ የመተማመን ሁኔታ የሚዳስሱ ናቸው። የሚከተለትን አማራጭ መልሶች ለተሳታፉው ካብራሩለት በኋላ ወደ ጥያቄዎቹ ይለፉ። በተሳታፊው መልሶች ስር ምሌክት (√) ያድርጉ።

- **አልተማመንም** ማለት የተገለፀውን ተግባር ለማከናወን በራስ መተማመን የላቸውም
- **እርግጠኛ አይደለሁም** ማለት የተገለፀውን ተግባር ለማከናወን የተወሰነ በራስ መተማመን አላቸው
- **እተማመናለሁ** ማለት የተገለፀውን ተግባር ለማከናወን በራሳቸው ይተማመናሉ

ቁጥር	ጥያቄዎች	አልተማመንም (1)	እርግጠኛ አይደለሁም(2)	እተማመናለሁ (3)
1	ህመሙ የሚያስከትልቦት ድካም ማድረግ የሚፈልጉትን ነገር ከማድረግ እንዳያግዶት ምን ያህል በራሶ ይተማመናሉ?			
2	አካሎ ላይ ምቾት የሚያሰጡ ወይም ህመሞ የሚፈልጉትን ነገር ከማድረግ እንዳያግዶ ለመቋቋም ምን ያህል በራሶ ይተማመናሉ?			

3	በህመሞ ምክንያት የሚያጋጥሞ የስሜት መረበሽ የሚፈልጉትን ነገር ከማድረግ እንዲያግዶ ለመቋቋም ምን ያህል በራሶ ይተማመናሉ?			
4	ለሌሎች ለጤና ችግሮች ወይም የህመም ምሌክቶች የሚፈልጉትን ነገር ከማድረግ እንዲያግዶ ለመቋቋም ምን ያህል በራሶ ይተማመናለ?			
5	የተለያዩ ተግባራትንና እንቅስቃሴዎችን በማከናወን ጤናዎን በመጠበቅ የህክምና እርዳታ ፍላጎቶን ለመቀነስ ምን ያህል በራሶ ይተማመናሉ?			
6	መድሃኒት ከመጠቀም ዉጪ ህመሞ የቀን ከቀን ህይወቶ ላይ የሚያመጣዉን ተጽእኖ ለመቀነስ ምን ያህል በራሶ ይተማመናሉ?			

ክፍል 4 – ከማህበረሰብ ስለሚገኝ ድጋፍ

ይህ የመጠይቅ ክፍል ተሳታፊው ከቤተሰብ እና ከቤተሰብ ውጪ ካለ አካላት ምን ያህል ድጋፍ ያገኛል የሚለውን ይዳስሳል። በተሳታፊው መሌሶች ስር ምሌክት (√) ያድርጉ።

ተ.ቁ	**ጥያቄዎች**	**መልስ**
1	የጤናዎ ሁኔታ በሚባባስቦት ጊዜ ሊደርሱላቸው እንደሚችሉ የሚተማመኑባቸው ምን ያህል ቅርብ ሰዎች አሎት?	1）የለም 2）1-2 3）3-5 4）5 እና ከዚያ በላይ
2	ሰዎች እርስዎ በሚያደርጉት ነገር ምን ያህል ፍላጎት እና አሳቢነት ያሳያሉ?	1）የለም 2）በጣም ጥቂት 3）እርግጠኛ አይደለሁም 4）የተወሰነ 5）ብዙ
3	እርዳታ በሚያስፈልግዎት ጊዜ ከጎረቤቶች ተግባራዊ እርዳታ ለማግኘት ምን ያህል ቀላል ነው?	1）በጣም ከባድ ነው 2）ከባድ ነው 3）ይቻላል 4）ቀላል ነው 5）በጣም ቀላል ነው

ክፍል 5__ለደም ግፊት የሚሰጡ መድሀኒቶችን በአግባቡ ስለመውሰድ
በተሳታፊው እተሰጠው መልስ ላይ ምልክት (v) ያድርጉ።

ለደም ግፊት የሚሰጡ መድሀኒቶችን *መውሰድ* ካልጀመሩ ወደ ክፍል 6 ይለፉ።

ተ.ቁ	ባለፉት ሰባት ቀናት ዉስጥ የትኛውን ተግብረዋል	መልስ	
		አዎ (1)	የለም (0)
1	መድሃኒት በአግባቡ መዉሰድ?		
2	መድሃኒቱን ሁልጊዜ በተመሳሳይ ሰዓት መውሰድ ?		
3	በባለሙያ የታዘዘን መድሃኒት ብቻ መዉሰድ ?		

ክፍል 6__ከደም ግፊት በሽታ ጋር በተያያዘ ስለሚደረግ ቋሚ የአመጋገብ ለውጥ፤

የሚከተሉት ጥያቄዎች ከደም ግፊት ጋር በተያያዘ ላለፉት ሰባት ቀናት የተደረጉ የአመጋገብ ዘይቤ ለውጦች ላይ ያተኩራሉ። ለተሳታፊው በአማራጮቹ ላይ ማብራሪያ ከሰጡ በኋላ ወደ ጥያቄዎቹ ይለፉ። በተሳታፊው መሌሶች ስር ምሌክት (v) ያድርጉ።

ተ.ቁ	ባለፉት ሰባት ቀናት ዉስጥ የትኛውን ተግብረዋል	መልስ	
		አዎ (1)	የለም (0)
1	ጤናማ የአመጋገብ አቅድ መቀጠል		
2	ድንች, ቺፕስና በጨው የተሰራ ፈንዲሻ በልተዋል?		
3	የታሸገ ስጋ በልተዋል ?		
4	አጠበሰ አሳ ወይም የተበሰ ስጋ በልተዋል?		
5	በኮምታተ የተሰራ ቅጠላቅጠል, የወይራ ፍሬ አና ሌላ አትክልቶች ቸው ባለው ዉሃ ዉስጥ ጨምረው በልተዋል?		
6	ከአምስት በላይ የሆኑ የተለያዩ ፍራፍሬ አና አትክልቶች ተመግበዋል?		
7	በበረዶ ዉስጥ የቀዘቀዘ ምግብ በልተዋል?		
8	ለብዙ ጊዜ የተቀመጡ ምግቦችን በልተዋል?		
9	ጨው የበዛበት ምግብ በልተዋል?		
10	ምግብ በሚዘጋጅበት ጊዜ ብዙ ጨው ጨምረዋል?		
11	የተጠበሰ ምግብ አንደ ዶሮ ወጥ አና አሳ ተመግበዋል?		
12	ስብ የበዛበት ምግብ አቁመዋል?		

ክፍል 7- በቋሚነት የሚደረግ የአካለብቃት እንቅስቃሴ

የሚከተሉት ጥያቄዎች ከደም ግፊት ጋር በተያያዘ ላለፉት ሰባት ቀናት የተደረጉ የአካለብቃት እንቅስቃሴ ለውጦች ላይ ያተኩራሉ። የሚከተለትን ጥያቄዎች ከቀረቡት አማራጮች ጋር ለተሳታፊዎች ያቅርቡላቸው።በመልሶች ጎን በሚገኙት ሳጥኖች ወስጥ ምሌክት (v) ያድርጉ።

ተ.ቁ	ባለፉት ሰባት ቀናት ዉስጥ የትኛውን ተግብረዋል	መልስ	
		አዎ (1)	የለም (0)
1	በቀን ቢያስ ለ 30 ደቂቃ ያክል አንቅስቃሴ መስራት		
2	መደበኛ የአካል ብቃት አንቅስቃሴ መስራት ለምሳሌ አንዴ ዋና, የአግር ጉዞና ሳይክል መንዳት ከተለመደአው የስራ አንቅስቃሴ ዉጪ መስራት		

ክፍል 8__በቋሚነት ሲጋራን ስለማቆም

የሚከተለት ጥያቄዎች በቋሚነት ሲጋራን ስለማቆምላይ ያተኩራሉ።በተሳታፊውእተሰጠው መልስ ላይ ምልክት (v)

ያድርጉ።

ተ.ቁ	ባለፉት ሰባት ቀናት ዉስጥ የትኛውን ተግብረዋል	መልስ	
		አዎ (1)	የለም (0)
1	ከባለፈው ሳምንት ዉስጥ , አንድት ትንፋሽ አንኩአን ብትሆን ሲጋራ ተጠቅመው ያውቃሉ ?		

ክፍል 9__በቋሚነት የአልኮል መጠጥ አወሳሰድን ስለመመጠን

አልኮል መጠጣት የሚለካው አንድ ሰው አንድ ብራ ጠርሙስ አንኩአን ቢጠጣ አልኮል የመጠጣት ባህርይ አንዳለበት ያሳያል.

ተ.ቁ	ባለፉት ሰባት ቀናት ዉስጥ የትኛውን ተግብረዋል	መልስ	
		አዎ (1)	የለም (0)
1	ከባለፈው ሳምንት ዉስጥ አልኮል ተጠቅመው ያውቃሉ ?		

ክፍል 10: የሰውነት ክብደትን የማስተካከል ልምድ በአለፉት 30 ቀናት ዉስጥ

ተ.ቁ	የሰውነት ክብደትን የማስተካከል ልምድ በአለፉት 30 ቀናት ዉስጥ	አጥብቄ አቃወማለሁ (1)	አልስማማም (2)	ግሉል (3)	አስማማለሁ (4)	አጥብቄ አስማማለሁ (5)
1	ስለምመገበው ነገር ሁሉ ጥንቃቄ አደርጋለሁ?					
2	ወደ ምግብ ቤቶች ጎራ በምልበት ጊዜ የምግብ ዝርዝሮችን በጥንቃቄ አንባለሁ?					
3	ክብደትን ለማስተካከል ወይንም ለመቀነስ ብዬ የተለየ አንቅስቃሴ አሰራለሁ?					
4	ስቁአር ያለባቸውን ማንኛውንም ነገር አልጠቀምም ?					
5	ጤናማ ያልሆኑ ምግቦችን መግዛትም ሆነ ወደ ቤት ማምጣት ትቻለሁ?					
6	አንዳንድ ስቁአር ነክ የሆኑ ምግቦችን ለመጠውን አለመቀነስ አየሞከርኩ ነው?					
7	ፈጣን የሆኑ ምግቦችን በረስቶራንት አልፎ አልፎ ነው የምጠቀመው?					
8	በፊት አጠከማቸው የነበሩ የምግብ አይነቶችን አሁን ጤናማ በሆነ የምግብ ዝርዝር አየተካሁ ነው?					
9	ቅመማቅመሞችን አስተካክልአለሁ					
10	የምግብ አዘገጃጀትና አሰራር ዘዴዎችን በፊት ከምሰራበት አይነት ቀይሬለሁ?					

ስለተሳተፉ በጣም እናመሰግናለን!!!