

Health seeking behavior and associated factors  
among chronic heart failure Adult clients,  
Jimma University Specialized Hospital, South  
west Ethiopia, 2016



**BY GETAHUN FETENSA**

**A MASTER THESIS SUBMITTED TO THE DEPARTMENT OF NURSING,  
COLLEGE OF HEALTH SCIENCES, JIMMA UNIVERSITY, IN PARTIAL  
FULFILLMENT FOR THE REQUIREMENTS OF MASTER DEGREE IN  
ADULT HEALTH NURSING.**

**MARCH, 2016**

**JIMMA, ETHIOPIA**

**JIMMA UNIVERSITY**  
**COLLEGE OF HEALTH SCIENCE**  
**DEPARTMENT OF NURSING AND MIDWIFERY**

Health seeking behavior and associated factors  
among chronic heart failure Adult clients,  
Jimma University Specialized Hospital, South  
west Ethiopia, 2016

**BY: GETAHUN FETENSA**

**ADVISORS: 1. Prof.Kifle Woldemichael.(MD, MPH)**

**2. Mr. Abeba.Abera.(Msc,Ass't Prof.)**

**MARCH, 2016**

**JIMMA, ETHIOPIA**

## **Abstract**

**Background:** Chronic heart failure (CHF) is a chronic progressive condition where the heart fails to meet the body's circulatory demands. Health-seeking behavior is important factors determining the acceptance of health care and outcomes, especially in chronic conditions like heart failure.

**Objective:** To assess health seeking behavior and associated factors among chronic heart failure adult clients admitted to medical and on chronic follow up clinic at Jimma University Specialized Hospital, South west Ethiopia, 2016

**Methods:** Facility based cross-sectional quantitative study design was conducted with a total of 335 patients admitted to medical ward and or on chronic follow up clinic of Jimma University Specialized Hospital. Consecutive sampling method was used to get the sample. Data was collected using structured questionnaire. The data was entered, into Epi-data manager version 2.0 and data entry client, data was cleared and exported to SPSS 20.0 for further analysis. Variables having p-value less than 0.25 in the bivariate analysis were entered into final model for Multivariable analysis. Variables with  $p < 0.05$  in the multivariable analysis were considered statistically significantly associated with health seeking behavior of Chronic heart failure

**Result:** Out of 335 participants 58.2% of the study participants had poor health seeking behavior. Distance from health facility was significantly associated health seeking behavior. Participants with monthly income of less than 500 ETB where less likely to adhere to good health seeking behavior [AOR (95% CI of OR) = 0.581 (0.35, 0.98)], Poor self care were less likely to adhere to good health seeking behavior at [AOR (95% CI of OR) = 0.191 (0.11, 0.33)] duration heart failure less than one year were more likely to adhere to good health seeking at [AOR (95% CI of OR) = 2.3 (1.12, 4.73) not take their medication as prescribed were more likely to adhere to good health seeking behavior at [AOR (95% CI of OR) = 8.6(1.86, 39.59)].

**Conclusion and recommendation:** In this study poor health seeking behavior is experienced in more than half of participants. In general factors such as adherence to self care behaviors, attitude, duration of heart failure, income, distance, taking medication and knowledge were significant factors that determine health seeking behavior of individuals. So that nurses and managers on study area should work together on factors that affect patients' health seeking activities.

**Key words:** Health seeking behavior, chronic heart failure, chronic follow up, Jimma University Specialized Teaching Hospital.

## **Acknowledgement**

My deepest gratitude and thanks goes to my advisors Professor Kifle Woldemichael and Mr Abebe Abera-for their unreserved advice and guidance for the development of this paper.

I should grant my thanks for everyone who was participated in giving necessary information for this thesis. Also I would like to acknowledge Jimma University and Wollega University for financial support for this thesis. I would like to give special thanks and appreciation for participants of the study. Lastly I would like to acknowledge department of nursing and midwifery staffs for their constructive comments starting from title selection up to development of this thesis.

## **Acronyms and Abbreviations**

AHA – American Heart Association

CHF – Chronic Heart Failure

COPD-Chronic Obstructive Pulmonary Disease

DM-Diabetes Mellitus

EHFScBS - European Heart Failure Self-Care Behavior Scale.

ESC - European Society of Cardiology

ETB-Ethiopian Birr

GBD- Global Burden of Disease

HEWs- Health Extension Workers

HF - Heart Failure

IHD - Ischemic Heart Disease

IRB- Institutional Review Board

JU- Jimma University

JUSH- Jimma University Specialized Hospital

NYHA - New York Heart Association

PUD-Peptic Ulcer Disease

RHD - Rheumatic Heart Disease

SPSS-Stastical Package for Social Science

SSA - Sub Sahara Africa

TB-Tuberculosis

UK - United Kingdom

US - United States

UTI-Urinary Tract Infection

WHO - World Health Organization

## Table of Contents

Abstract .....	I
Acknowledgement .....	II
Acronyms and Abbreviations .....	III
List of Figures .....	VI
List of Tables .....	VII
CHAPTER ONE: INTRODUCTION .....	1
1.1.BACKGROUND .....	1
1.2. STATEMENT OF THE PROBLEM .....	3
CHAPTER TWO .....	4
2.1. LITERATURE REVIEW .....	4
Conceptual frame Work .....	9
2.2. Significance of the study .....	10
CHAPTER THREE .....	10
3. OBJECTIVES .....	11
3.1. General Objective .....	11
3.2. Specific Objectives .....	11
CHAPTER FOUR .....	12
4. Methods and materials .....	12
4.1. Study Area and Period .....	12
4.2 Study design .....	12
4.3. Population .....	12
4.3.1. Source Population .....	12
4.3. 2. Study population .....	12
4.3.3. Eligibility .....	13
4.4. Sample size determination .....	13
4.5. Sampling techniques and Procedure .....	14
4.6. Study variable .....	15
4.7. Operational definition and definition of terms .....	15
4.8. Measurements/tools for data collection .....	16
4.9. Methods of Data Collection .....	19
4.10. Pretest .....	19

4.11. Data Quality Control and management.....	19
4.12. Data Analysis and interpretation.....	19
4.13. Ethical considerations .....	20
4.14. Dissemination plan.....	20
CHAPTER FIVE .....	21
RESULTS .....	21
CHAPTER SIX.....	33
Discussion.....	33
Limitation of the study.....	35
CHAPTER SEVEN .....	36
7. CONCLUSION AND RECOMMENDATION.....	36
<b>7.2. Recommendation</b> .....	36
References.....	37
Annexes Questionnaire .....	41

## List of Figures

<a href="#"><u>Fig.1. conceptual frame work developed after reviewing relevant literature</u></a> .....	9
---	---



**List of Tables**

[Table 1 Socio-demographic characteristics of the clients with Chronic Heart Failure attending JUSH South West Ethiopia March 1- April 30, 2016 GC](#) ..... 22

[Table 2 Clinical symptoms and treatment practice of clients with CHF attending JUSH, South west Ethiopia March 1-April 30, 2016 GC](#) ..... 24

[Table 4 Bivaiate analysis of factors associated with health seeking behavior of the study subjects, JUSH, 2016.](#) ..... 28

[Table 5 Multivariable logistic regression analysis of factors affecting health seeking behaviours among patients with chronic heart failure attending JUSH, South west Ethiopia, March 1-April 30,2016 GC.](#) ..... 31

## **CHAPTER ONE: INTRODUCTION**

### **1.1. BACKGROUND**

Non-communicable diseases are the leading causes of death globally, killing more people each year than all other causes combined. Contrary to popular opinion, available data demonstrate that nearly 80% of deaths due to non-communicable diseases occur in low- and middle-income countries including Ethiopia (1).

Chronic heart failure (CHF) is a chronic progressive condition where the heart fails to meet the circulatory demand of the body. CHF is an increasingly common and burdensome illness especially among those older people and is a major cause of mortality, morbidity and poor quality of life worldwide (2,3).

Although the population burden and individual impact of chronic heart failure (CHF) has been well described in the western world, it has been less well described on the African continent. Significantly, CHF represents an emerging problem in particularly sub-Saharan Africa countries in relation to epidemiological transition (4).

Hospitalization for CHF exacerbations could often be prevented by care plans considering self-care as a core for their health programs. Furthermore, effective self-care has been critical in promoting optimal outcomes in CHF and reducing mortality rates (5).

Health-seeking behavior is defined as an individual's needs to the promotion of maximum well-being, recovery and rehabilitation; this could happen with or without health concerns and within a range of potential to real health concerns. Understanding local perceptions of health needs, the process of health decision-making, and concerns and considerations of locals, are key components in understanding health seeking behavior in any health condition(6). It varies for the same individuals or communities. It is also the act of making a decision to seek or not to seek health care from qualified health personnel when not feeling well. In its widest sense, a health behavior includes all those behaviors associated with establishing and retaining a health state, plus aspects of dealing with any departure from that state. Health-care seeking behavior is important because it is one of the factors determining the acceptance of health care and outcomes, especially in chronic conditions like heart failure (6, 7, and 8).

Different factors such as ethnicity, economic class, gender, knowledge and other aspects of people's backgrounds (including family factors) seem to have a strong influence on health care-seeking behavior (9).

Community's ideas and attitudes toward health and illness affect the way they utilize health services that in turn can affect their act of seeking health. This is because these ideas and attitudes provide ideological basis for the healthcare system (10).

## **1.2. STATEMENT OF THE PROBLEM**

Heart failure (HF) is a serious worldwide health problem with high repeated hospital admission and mortality rates. It is a serious health care problem not only for patients and patient's family but also for society, as it leads to significantly to the enormous costs associated with the care of HF patients. Nearly 6.5 million people in Europe, five million people in the USA, and 2.4 million people in Japan suffer from HF. HF affects 1–3% of the general population and 10% of the elderly in the past two decades globally(5, 11).

Chronic heart failure (CHF) significantly contributes to disease burden and is the leading cause of all hospital admission and readmissions in older people, constituting for a large proportion of developed countries' national health care expenditure. The estimated prevalence of CHF in people aged 45 years or more ranges between 3 and 5% worldwide even though the true prevalence of CHF may be greater than what estimated due to under-diagnosis of mild to moderate CHF (12).

More than 5 million people in the United States have heart failure and over half of million (550,000) new cases are diagnosed each year. Even though the disease can affect people of all ages; it is most common in people older than 75 years of age (13).

In Africa the clinical presentation is characterized by high proportion of symptomatic patients.

More than 50% of patients present in stage III and IV of the New York Heart failure functional classification clinical signs and symptoms. These are similar to those reported elsewhere, but are eliminated by the high prevalence of nonspecific feature (14).

Study with Health seeking behavior of chronic heart failure clients in Ethiopia is not common, but clients with heart failure suffer from different problem due to poor health seeking and poor self care behavior. This behavior includes like that of missing medication, self-care beliefs, including inability to modifying their diet, more salt intake, inadequate maintenance of a healthy weight, smoking, and lack of getting regular exercise. Most people have poor knowledge and belief about the seriousness of poor health seeking behavior for heart failure and the consequence associated with it. Bearing in mind this situation and the lack of study on this area in Ethiopia, it is necessary to assess the overall health seeking behavior and its associated factors among patient with chronic heart failure. This study was conducted to describe health seeking behavior by clients with chronic heart failure and to identify factors which promote or prevent positive health maintainance.

## **CHAPTER TWO**

### **2.1. LITERATURE REVIEW**

#### **2.1.1 Prevalence of health seeking behavior**

Studies from multiple countries have documented the utilization of multiple sources of health care and factors that influence these choices as it stated in Esemep study conducted in south west of Nigeria on health care seeking of hypertensive patients (15).

A study conducted in south Africa on health seeking behavior revealed overall, 27.0% of the adolescents reported seeking medical care in the previous 6 months, and the proportions by gender were similar (25.6% vs. 28.0%) male and female respectively. The proportion of female adolescents seeking healthcare in the doctor's practice was significantly higher than for males (12.8% vs. 2.2%) (16).

#### **2.1. 2. Factors that affect health seeking behavior**

Health Seeking Behavior is a usual habit of the people of a community that resulted from the interaction and balance between health needs, health resources, and socioeconomic, cultural as well as political and national / international contextual factors (17). Common factors contributing to patients' self care capacity and the quality of received care includes knowledge and understanding, health service encounters including access, continuity and quality of care, co-morbid conditions, and personal relationships. Factors affecting the health seeking behavior are seen in various contexts: physical, socio-economic, cultural and political as it stated in study conducted in Dharan. The study indicates that factors like occupation and education status of respondents were not significantly associated, but factors like income and family size were significantly associated to health seeking behaviours of individuals (17).

A study conducted in Malaysia on health seeking behaviours of elders reveals that older people have more underlying factors such as illiteracy, family composition, misconception and financing for accessing health care. Beside this study had also revealed that elder are economically unproductive, there is a tendency that they might face with financial burden and develop social dependency due to illnesses and health care for that(18).

Health seeking behavior was not associated with Gender, ethnicity, religion, however, Poor elderly are more likely to skip treatment than those elderly whose income above poverty line. It is statistically significant as it was stated on study conducted in Malaysia (18).

According to study conducted in India on health seeking behavior of women those found in 35-65 age group, overall results revealed that most of the respondents (44%) showed moderate level of health seeking behavior, followed by 29.17% who had low level of health seeking and 26.83% had high level of health seeking behavior (19).

Case, Menendez, & Ardington, examined patterns of health seeking behavior of individuals who lived in the Northern KwaZulu-Natal region in South Africa prior to their death. It was discovered that significant positive associations exist between individuals socioeconomic statuses. Individuals with greater economic resources are significantly more likely to seek treatment. The study also indicated that Individuals who are ill for a longer period are reported to see a greater number of health providers (20).

Religion is one of the factors that can influence health seeking behavior of individuals as it had been revealed in a study conducted in Uganda Christian University Luwero district. According to this study Catholics were more likely to seek health care (59%) than the Muslims (16%). There is a possibility that Muslims and others who sought less health care have other ways of treating themselves which are not recognized as professional ways of seeking care. It was concluded that there is a very strong evidence of a relationship between the religion and health seeking behavior among men, and that religion strongly determines the health seeking behavior among men in Luwero district (21).

Many studies had revealed like that of study conducted in Dharan on Factors affecting health seeking behavior of senior citizens puts reasons for not seeking the health care facility were 35.5% respondents did not seek for the health care due to due lack of money and old age were 64.0%, and 41% complained about the poor attitude of health care workers towards their health needs and treatment. Twenty five percent of respondentscomplained the facility is too far/ too much work to do at home (19).

Based on the study conducted in 2012 on predictors of chronic heart failure, Jemal Beker states 52.9 % of the clients had clinical symptom of CHF  $\geq$  one year duration. Classification of heart failure by symptoms related to functional capacity (NYHA) showed that 56.9 % of study

subjects were stage III CHF and more than half of them were taking ACEI/ARB, diuretics and digitalis medication 70.6%, 78% and 53.3% respectively. The study conducted by above investigator also reveals that patients with multiple Co-morbidities had accounted 62%, Hypertension and DM were a common co morbidity obtained from patients card 48.2% and 36.5%, respectively (22).

Educational attainment has apparently a positive In terms of relation between educational attainment effects on seeking care behavior. This indicates the more educated the more they seek health. Family size has direct effect on health seeking behavior as family size increase by one odds health seeking behavior decrease (23).

Insufficient patient knowledge of their illness and effective management also led to non-adherence of self management strategies, such as exercise or low-sodium diet, (24), inappropriate self care (25) and delays in seeking health care that had effect on chronic heart failure outcome (26). When patients had CHF and diabetes they found it difficult to follow dietary restrictions for both CHF and diabetes (24).

A study conducted in India on women showed there is discrepancy based on area of residence as urban 45.5% area is moderate health seekers whereas most of the respondents 48% from rural areas showed low level of health seeking. Thirty one percent urban and only 17.5% rural respondent's showed high level of health seeking behavior (17). The majority of CHF patients are females, largely attributable to their longer life expectancy (27).

According to study conducted in Japan of heart failure patients showed the percentages of good adherence to seeking help if they gained weight or experienced increased fatigue were very low (34.3% and 36.2%, respectively). However, in this study the percentage of good adherence to prescribed medication was high 98.3% (28).

In study conducted on self care agency in Iran indicates that, 47.2% of participants were found to belong to the class III heart failure (NYHA classification), 52.8% were male and it also showed that 51.4% were rural, 52.8% were married in marital status, 51.4% were literate, and 40.4% were unemployed or housewife. In terms of disease and treatment associated characteristics, 43.1% had a history of smoking, 62.5% were suffering from other chronic disorders in addition to heart failure, the highest percentage of which 29.2% was related to diabetes (29). Study conducted in Nkomazi east area of Mpumalanga states the majority of participants 66.6% finished their course of treatment, 26.5% (30).

According to study conducted in Philippines on health seeking behavior of patients with DM, reveals that participants of the study sought consult or advice from someone to manage their symptoms in the event of an illness, 61.2%. In this study 43.5% of the respondents were prevented to seek consult on a regular basis due to lack of resources (31).

Study conducted in Nigeria states that people seek help on health issues based on several reasons and the factors which influence the choice of treatment sources when symptoms occur include socio-cultural factors, social networks, gender and economic status. Access to healthcare facilities in terms of cost of treatment and healthcare provider attitude are also determinants of health seeking behaviour (32).

Cross-sectional Study conducted in Spain on 335 patients using EHFS CBS for self care behavior using 12 items reveals that there were no differences in age, sex, etiology, and NYHA functional among patients evaluated during their study time. This study indicates the cause of chronic heart failure patients as; 61% was due to Ischemic heart disease 10% due to dilated cardiomyopathy 9% due to hypertensive cardiomyopathy 6% due to alcoholic cardiomyopathy 6% due to valvular heart disease and was due to 8% other cause (33).

Study conducted in Wakiso district of Uganda reveals that majority of participants (84%) did not have health extension worker in their community while 12% mentioned that they were existent. Among the 4% of participants who said CHWs existed, the services they mentioned were offered included health education (56%), referral of patients to health facilities (56%) and drug distribution (33%),(34).

Study conducted in Jimma south west, in 2012 indicates that almost all 94.1% of of study participants live with somebody (22) and study conducted in Iran indicates that 19.4% were living alone in their living status (30).

In a study conducted on appropriate health-seeking behavior and associated factors in Ethiopia and other studies, high monthly real per capital income had a significant association with good health-seeking behavior. The studies reasons out that it may be due to that those who earn high monthly real per capital income may have more access to information by being furnished by the radio and television; the affordability of healthcare services may not bother them, either. Less appropriate health-seeking behavior was observed among participants from larger family sizes in this study. The study justified it may be due to the fact that those who had larger family



members shouldered more family responsibilities and experienced severe socioeconomic hardships, which prevented them from visiting appropriate healthcare facilities for their illnesses(35,36).

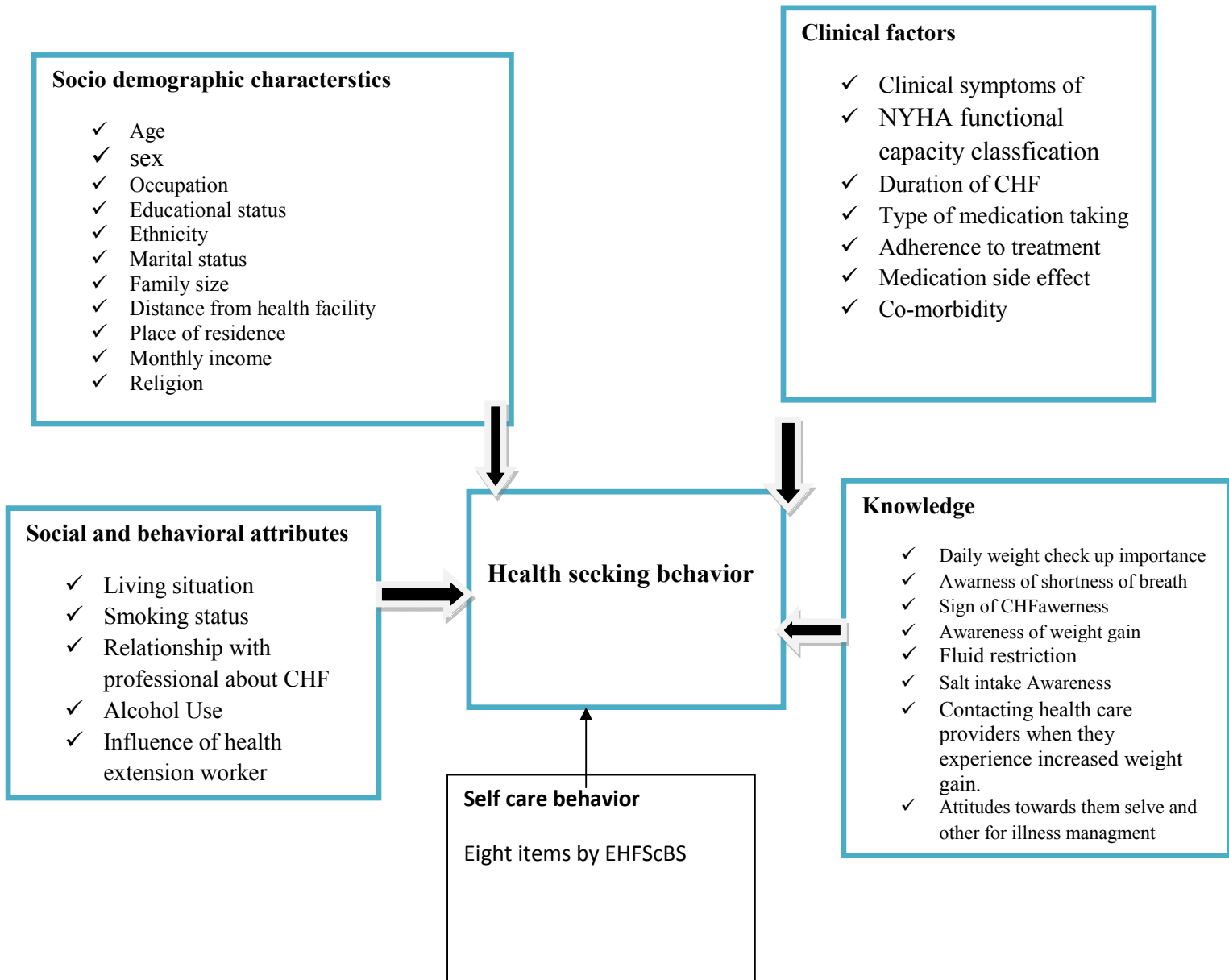
According to study conducted by levental and Prohaska indicates that as age patients of clients with chronic heart failure increases, their health seeking behaviors decrease due to symptom like fatigue and weakness were taken as normal aging(37).

According to study conducted on predictors of self care of clients with chronic heart failure by Jemal in 2012 indicates, 75.3% were not knowledgeable about HF (22) and Study conducted in Pakistan on knowledge modifiable risk factors of heart disease on patients with acute myocardial infarction indicates that 42% of patients had good level of knowledge about the risk factors (38).

According to study finding from Nigeria indicates community's ideas and attitudes toward health and illness affect the way they utilize health services that in turn can affect their act of seeking health (10). An individual those didn't seek health due to attitude as study conducted in United state of America on factors affecting health seeking behaviours of Natitiuve Hawai'ian men indicates most troubling responses were fear, shame, embarrassment, and distrust accounted for about a third of the attitudinal responses to factors that interfered with health seeking(39), on other way study in Nigeria on health seeking behavior indicates distance was significantly associated with health seeking behavior, (40).

As study conducted in Malaysia on prevalence and determinants of appropriate health seeking behavior indicates that ,mean household income, duration of illness, presence of other illnesses, duration of seeking treatment upon diagnosis, family support, and perception severity of disease were determinants of appropriate health seeking behavior(41).

## Conceptual frame Work



**Fig.1. conceptual frame work developed after reviewing relevant literature**

## **2.2. Significance of the study**

Studying health seeking behavior among chronic heart failure clients helps to stimulate effective intervention and prevention for changing their health seeking behavior pattern and identifying factors associated with health seeking behavior of chronic heart failure clients that can lead to know the concern to deal with it. These interventions and preventions program may help the study participants to practice good health seeking behavior.

This study will aid for nursing profession and nurses to provide effective nursing care and advice of chronic heart failure on health seeking behavior affecting factors for better patients' health.

This study will have a great importance to the health officials to provide better services that promote health seeking behavior of heart failure in hospital set up plus in the community on Standardized chronic heart failure clients' education throughout and hospitals to revise patient education tools to incorporate self-management skills.

Also it will be bases for further research of the health seeking behavior importance and a change of patient beliefs in health seeking among patient with chronic heart failure.

This study will contribute a lot for the target group by implying the need for life style adjustment and some modification in habits, work, the need to health seeking behavior and beliefs that have significant impact on health seeking behavior and its' associated factors.

## **CHAPTER THREE**

### **3. OBJECTIVES**

#### **3.1. General Objective**

To assess health seeking behavior and its associated factors among chronic heart failure adult clients admitted to medical ward and chronic follow up clinic at JUSH, South west Ethiopia, 2016

#### **3.2. Specific Objectives**

1. To assess health seeking behavior among chronic heart failure adult clients at Jimma University specialized hospital
2. To identify associated factors with health seeking behavior among chronic heart failure adult clients at Jimma University specialized hospital

## **CHAPTER FOUR**

### **4. Methods and materials**

#### **4.1. Study Area and Period**

The study was conducted at medical ward and chronic follow up clinic of Jimma University Specialized Hospital (JUSH) from March 01- to April 30, 2016; Jimma town. JUSH is one of the oldest public hospitals in the country. It was established in 1938 G.C by Italian invaders for the service of their soldiers. Geographically, it is located in Jimma city Oromia region south west Ethiopia at a distance of 352 km southwest of Addis Ababa. The Ethiopian Ministry of Health started to run it & give service to the people and as of 1992 G C it became a training center for health workers (Medical Doctors, Nurses, Pharmacy Technicians, and Laboratory Technicians & Environmental Health Experts). Currently it is the only teaching and referral hospital in the southwestern part of the country, providing services for approximately 15,000 inpatient, 160,000 outpatient attendants, 11,000 emergency cases coming to the hospital from the catchment population of about 15 million people. Now day JUSH has about 21 units. Chronic follow up is one of the unit that serve 9709 clients currently with subunits like epilepsy follow up, cardiac follow up, dermatology, and DM sub-units. There are a total of 1700 on chronic heart failure patients on follow up and an average 40 clients on admission to medical wards of the units (43).

#### **4.2 Study design**

Facility based cross-sectional quantitative study design was employed.

#### **4.3. Population**

##### **4.3.1. Source Population**

All registered Adult clients for admission and on follow up with chronic heart failure clients at Jimma University Specialized Hospital (JUSH)

##### **4.3. 2. Study population**

All sampled clients adult with confirmed diagnosis of heart failure at least 6 month before time of data collection, admitted in medical ward and/or attending a regular follow- up at chronic follow up during time of data collection at Jimma University Specialized Hospital.

### 4.3.3. Eligibility

#### Inclusion criteria:

- ✓ Those who were on treatment regimen for chronic heart failure at chronic follow up.
- ✓ Those who were admitted to medical ward of JUSH.
- ✓ Ages 18 years old and above

#### Exclusion criteria:

- ✓ Those who were critically ill and who had cognitive impairment.

### 4.4. Sample size determination

The sample size in this study was determined using a single population proportion formula.

Where, n =the required sample size

Z =standard score corresponding to 95% confidence interval 1.96

P = the estimated proportion of adherence to health seeking behavior of patients with chronic heart failure assumed to be 50%

d = the margin of error (precision) 5%

d is the desired degree of accuracy (taken as 0.05) and p, is the estimate of the proportion of adherence to health seeking behavior of chronic heart failure client assumed to be 50%

$$n = \frac{(Z_{\alpha/2})^2 P (1-P)}{d^2} = \frac{(1.96)^2 0.5(1- 0.0.5)}{(0.05)^2} = 384$$

Therefore, n =384

This yield sample size of 384. Since the source population is less than 10,000 the sample size was adjusted with correction formula and by considering 10% non-respondent's rate, the final sample size was 335 of chronic heart failure clients were participated

$$Nf = \left( \frac{n}{1 + \frac{n}{N}} \right) = \left( \frac{384}{1 + \frac{384}{1740}} \right) = 314 + 31 \text{ contingency for non-response rate (10\% of the sample}$$

size=335

#### **4.5. Sampling techniques and Procedure**

Non-probability sampling technique was used to select patients, by considering patients with HF  $\geq 18$  years to the chronic follow up unit until the designed proportion is maintained and the same procedure was employed for admitted patients. Then each study participants was selected using consecutive sampling technique until sample size is maintained.

Proportional allocation of the study subjects to the three units as follows:

##### **Chronic follow up**

$n_c/N * n_f = 1700/1740 * 335 = 327$  (where  $n_c$  is number of chronic heart failure clients those were admitted to follow up clinic, N is total population and  $n_f$  is the final sample size)

##### **Medical ward A**

$n_{ma}/N * n_f = 15/1740 * 335 = 3$  (where  $n_a$  is number of chronic heart failure clients those were admitted to medical A at least one month N is total population and  $n_f$  is the final sample size)

##### **Medical B**

$n_{mb}/N * n_f = 25/1740 * 335 = 5$  (where  $n_b$  is number of chronic heart failure clients those were admitted to medical B at least for one-month N is total population and  $n_f$  is the final sample size)

Finally it gives the determined sample size which was 335 chronic heart failure clients.

## 6. Study variable

### 4.6.1. Dependent variable

- Health seeking behavior,

### 4.6.2. Independent variables

- **Socio-demographic characteristics** (age, sex, religion, ethnicity, marital status, occupation, education, place of residence, income per month, family size, distance from health facility)

-**Clinical variables** (Clinical symptoms of Chronic heart failure, Duration of CHF, NYHA Functional class, Type of medication taking, adherence to treatment, Co-morbidity,)

-**Cognitive and psychological** (EHFScBSc of an 8 –items knowledge scale)

**Social and behavioral attributes** :( Living situation, Smoking status, relationship with medical staff, Alcohol use, discussion about illness with family and or relatives influence, Influence of HEWS)

## 4.7. Operational definition and definition of terms

**Heart failure:** A person with confirmed diagnosis of heart problem and on treatment.

**Chronic heart failure:** A person with confirmed diagnosis of heart failure more than 6 month.

**Co-morbidity:** defined as pressense of other illness in addition of heart failure like DM, hypertension, anemia, kidney disease liver disease, valvular heart disease, acute myocardial infraction.

**Health seeking behavior:** is defined as performing activities like and awareness warning sign, ability to recognize symptoms, awareness of possible progression, think about treatment option, identification of symptoms and start health care, meet recommended number of appointment, choice of right professional, look for additional information regarding health, problem of remembering medication or treatment advice, feel better stop taking medication or advice and feel worse stop medication or advice

**Good health seeking behavior-** is defined as a value above the mean of health seeking behavior scale.

**Poor health seeking behavior-** is defined as a value below the mean of health seeking behavior scale.



**Self-care behaviors** - self-care involves behavior such as taking medications, monitoring and interpreting symptoms, keeping appointments, and contacting health care providers when needed.

**Self care:** - is defined as activity included in modified European Heart Failure Self-Care Behaviour Scale (EHFScBS).

**Knowledgeable:** a value above the mean score of EHFScBS knowledge measuring items score

**Not knowledgeable:** a value below the mean score of EHFScBS knowledge measuring items score.

**The classes (I-IV) are:**

**Class I HF:** cardiac disease, but no symptoms and no limitation in ordinary physical activity, e.g. no shortness of breath when walking, climbing stairs etc.

**Class II HF:** mild symptoms (mild shortness of breath and/or angina) and slight limitation during ordinary activity.

**Class III HF:** Marked limitation in activity due to symptoms, even during less-than-ordinary activity, e.g. walking short (20\_100 meter distance)

**Class IV HF:** Comfortable only at rest, severe limitations, experiences symptoms even while *at rest*. Mostly bed bound patients.

#### **4.8. Measurements/tools for data collection**

The tool prepared for this data collection has six parts with part I socio demographic data containing 11 items. Part II contains questions about clinical characteristics of heart failure which are multiple options with 14 items. The following data were collected from the medical records: duration of HF, New York Heart Association functional class, treatment they were taking and Co-morbidity

**Part III Health seeking behavior:** Health seeking behavior was assessed using eleven questions used to detect health seeking behaviors which were used.

**Self care behavior:** self Care behavior Scale (EHFScBS) that was adapted from different literature for assessing respondents self care behavior in this study (22, 28). Item number twelve had been modified because it was uncommon characteristics in Ethiopia. These are 11-item, interviewer-administered questionnaire that covers information on the self-care behavior of patients with HF, such as daily weighting, fluid restriction, medication, and contacting health

care providers when they experience increased weight gain. For each item, patients will rate their self-care behavior on a 5-point Likert scale from 1 (“I completely agree”) to 5 (“I do not agree at all”). The total score ranges from 11 to 55 and was calculated by summing the scores for each item. The mean of the score was calculated and a value above the mean had poor adherence and having value below the mean was good adherence.

**Part IV;** This part has 8-items used to assess patients’ knowledge about HF, an 8-item scale was modified based on earlier studies.

Patients was presented with 8 statements about HF, such as “weight check is important to evaluate fluid retention,” and will be asked to respond “yes,” “no,” or “I do not know” to each statement

Out of a total of study respondents asked about their level of knowledge about heart failure the correct answer was coded 1 and in correct answer was coded 0 and an individual having the total score above mean were taken as knowledgeable and individual having score below the mean had taken as not knowledgeable.

**Part V:** Attitudinal factors: contains 15 questions that were used to assess attitude towards illness management.

**Part VI;** Social attributes; this part contains a total of 10 questions which are concerning about patients’ social situation which include living situation, smoking status, relationship with medical staff, alcohol use, discussion about illness with peer, family and relatives, Influence of HEWS.

**Age category**

In this study age of respondents were categorized into four categories to use in analysis method that had been take according to study conducted in Uganda on health seeking behaviours and challenges in utilizing health facilities in 2014 GC(38).

**Income**

In this study, income referred to monthly real per capital income of the respondents. Employed workers were asked their monthly salary, where-as farmers were asked the annual amount of cereal harvested and changed to Birr which was then divided by the months of the year.

For the analysis of this study I used 500 Birr, which is the average urban and rural monthly real per capita total consumption expenditure set by the Federal Ministry of Finance and Economic Development of Ethiopia.

Which was taken according to study conducted in northwest of Ethiopia on appropriate health seeking behaviors and associated factors of people having cough for at least 2 weeks in 2013 G.C(35).

**Family size**

For this study I used 5(the average fertility rate) as an average of house hold size that was considered according to the previous study (35).

**Distance from health facility**

For this study distance category was taken from the study conducted in luwero district of Uganda in 2015, on determinant of health seeking behavior among men (21).

#### **4.9. Methods of Data Collection**

Data was collected by using structured questionnaire and interviewing study subjects. Card review was undergone to get clinical information of patients like NHYA stage, drug they took and co morbidity of their illness. There were 2 Bsc nurse data collectors trained for 02 day on how to fill the data and handle the documents in accordance with the objective of the study. The data was collected for 2 months. Continuous monitoring and supervision was done during data collection by senior MSc nurse as supervisor and principal investigator at spot.

#### **4.10. Pretest**

The questionnaire was pretested in 5%(16) of the sample size before the actual data collection at Nekemte Referral hospital by the investigator and the pretest result was used to check consistency of the tool, order and local acceptability check and necessary modification and possible amendment was made based on the result.

#### **4.11. Data Quality Control and management**

To assure the quality of data, careful modification of the data collection tool according to Ethiopian situation was applied. The data collection instrument format was developed in English version, translated to Afan Oromo and Amharic, later translated back to English version by other experts to check its consistency. Data collectors and supervisors were Bsc nurse who had work experience of two years and above. During the data collection procedures, all the collected data was reviewed and checked daily for its completeness.

#### **4.12. Data Analysis and interpretation**

The data was compiled, entered, into Epi-data manger 2.0 and Epi- data entry client, cleared, explored, and then exported to SPSS windows version 20.0 for, summarization and further analysis. Bivariate analysis was carried out to assess association between the dependent and all the independent variables and to identify candidate for multivariate analysis. Variable having p-value less than 0.25 was subjected for multi-variable analysis. Then multivariable analysis was performed to determine the independent associated factor of the dependent variable. Statistical significance was considered at p-values < 0.05 and adjusted odds ratio (AOR) of 95% confidence interval (95% CI). Finally the result was presented in tables and statements.

#### **4.13. Ethical considerations**

The study was approved and ethical clearance letter was obtained from institutional review board (IRB) of College of health Sciences, Jimma University and was given to JUSH administrative office to undertake formal investigation. A consent sheet was prepared, translated in to local language and attached to the questionnaire in a separate page. In the consent sheet, the purpose of this study was stated and there is explanation that there is no way to cause any harm to the study subjects. Oral consent was obtained from study participants to ensure confidentiality; the consent sheet indicates that there were no participant identifiers to be written on the survey questionnaire and that no individual response was reported.

Everybody was participated voluntarily.

#### **4.14. Dissemination plan**

The thesis will be presented to Jimma University, college of health science Department of nursing and midwifery and documents will be disseminated to all responsible bodies in the study area. The thesis will be disseminated in to the Ministry of Health, Oromia Health Bureau, Jimma zone Health department, Jimma University Specialized Hospital Administrative office. The findings will be presented at various seminars, meetings and workshops. Effort will be made to publish in an International peer reviewed scientific journal. Hard and soft copy will be availed in the library of Jimma University for graduate students as well as for other concerned body.

## CHAPTER FIVE

### RESULTS

#### **Socio-demographic characteristics of the study participants**

A total of 335 respondents were considered for the final analysis with response rate of 100%. The study reveals that the respondent's age lies between 18 and 89 with the mean age ( $\pm$ SD) of (48.08 $\pm$ 16.38). One hundred forty nine (44.5%) were males and most predominant religion was Muslim 246 (74.6%) followed by orthodox 62(18.5%) and protestant 21(6.3). Regarding occupation most of the study participants were farmers 142(42.4%). Greater than half of the study participants were rural residents 246(73.4%) and more than half 205(61.2) had five or more children (**Table1**).

Table 1 Socio-demographic characteristics of the clients with Chronic Heart Failure attending JUSH South West Ethiopia March 1- April 30, 2016 GC

Variables	Categories	Frequency	Percent %
Sex	Female	186	55.5
	Male	149	44.5
	Total	335	100.0
Religion	Muslim	246	73.4
	Orthodox	62	18.5
	Protestant	21	6.3
	Catholic	5	1.5
	Joba	1	.3
	Total	335	100.0
	Educational status	Illiterate	212
can read and write		91	27.2
primary school		23	6.9
high school		9	2.7
Total		335	100.0
Ethnicity	Oromo	247	73.7
	Amhara	41	12.2
	Gurage	21	6.3
	Other	17	5.1
	Tigre	9	2.7
	Total	335	100.0
Distance from health facility	<1km	62	18.5
	1-3km	133	39.7
	3.1-5	84	25.1
	≥5 km	56	16.7
	Total	335	100.0
Age in years	18-25	38	11.3
	26-35	44	13.1
	36-50	105	31.3
	>50	148	44.2
	Total	335	100.0
Occupation	Farmer	142	42.4
	house wife	96	28.7
	Merchant	51	15.2
	government employee	29	8.7
	Other	17	5.1

Table 1 conti...			
Marital status	Total	335	100.0
	Married	244	72.8
	Widowed	37	11.0
	Single	25	7.5
	Divorced	21	6.3
	Separated	8	2.4
Monthly income (ETB)	Total	335	100.0
	<500	163	48.7
	≥500	172	51.3
Family size	Total	335	100.0
	<5	130	38.8
	≥5	205	61.2
Place of residence	Total	335	100.0
	Rural	246	73.4
	Urban	89	26.6
	Total	335	100.0

**Other ethnicity:** Dawuro, Woleyita, Kafa, Yem

**Other occupation:** student and daily labour

### **Clinical conditions and related attributes**

Greater than half (85.4%) of the study participants had confirmed diagnosis of heart failure greater than or equal to one year and 14.6% of them had confirmed heart failure less than one. Two hundred forty four (72.8%) of the study participants did not know the cause of their heart failure. Three hundred thirty four (99.7%) of the study respondents can report their sign and symptom and only one individual did not know the sign and symptom of his heart failure. Out of those who know the sign and symptoms 161(48.1%) report swelling of ankles and legs and 21(6.3%) report shortness of breath.

Among the respondents 298(89%) had information on self care told by health professional. Most of the respondents 323(96.4%) take their medication as it's prescribed and 225(67.2%) of participants did not have experience of medication side effect while among those individuals who had experienced medication side effect 78(64.8%) did not withdraw medication after side effect. In this study 145(43.3%) stage IV, Co morbidity occurred in 314(93.7%) and 272(81.2%) of them were diuretics takers (**Table2**).



Table 2 Clinical symptoms and treatment practice of clients with CHF attending JUSH, South west Ethiopia March 1-April 30, 2016 GC

Variables	Categories	Frequency	Percent %
Duration of heart failure	<1 year	49	14.6
	≥ 1 year	286	85.4
	Total	335	100.0
Sign and symptom	Shortness of breath	323	96.7
	Fatigue after minor exertion	277	82.9
	Persistent cough	265	79.3
	Weight gain	216	64.7
	Swelling of ankles and legs	36	10.8
	Others	2	0.6
	NYHA functional class	I	7
II		60	17.9
III		123	36.7
IV		145	43.3
Total		335	100.0
Type of medication taking	ACE inhibitors	214	63.9
	Beta blockers	120	35.8
	Digitalize	159	47.5
	Diuretics	272	81.2
	Ca channel blockers	45	13.4
	Others	164	49.0
	Co-morbidity	DM	44
Hypertension		157	46.9
Acute myocardial infraction		54	16.1
Renal disease		24	7.2
Liver disease		9	2.7
Valvular heart disease		66	19.7
Others		68	20.3
No comorbidity		21	6.3
Important care under taken		Adequete rest	307
	Use of pillows	286	85.4
	Limit exercise	140	41.8
	Salt restriction	140	41.8
	Daily weighing	22	6.6
	Others	4	0.2

		Table 2 conti...	
Type of medication taking in number	1	28	8.4
	2	73	21.8
	3	133	39.7
	4	76	22.7
	5	22	6.6
	6	3	.9
	Total	335	100.0
Comorbidity in number	0	21	6.3
	1	211	63.0
	2	85	25.4
	3	13	3.9
	6	5	0.15
	Total	335	100.0

**NB. Other symptom:** (night sweating, anorexia)

**Other care:** (coffee and chat chewing cessation, bed rest)

**Other comorbidity:** (Anemia, PUD, Asthma, TB, COPD, goiter, metabolic syndrome, pneumonia, rheumatic, thyrocarditis, thyrotoxicosis, UTI)

### Health seeking behavior variables

More than half 195 (58.2%) of the study participants had poor health seeking behavior and 140(41.8%) had good health seeking behavior.

### Adherence to self care behavior

More than half of the study participants 185 (55.2%) had poor adherence to self care behavior. The mean ( $\pm$ SD) on European Heart Failure self care Behavioral scale (EHFScBS) score was  $26.86 \pm 5.79$  with minimum and maximum score of 11 and 50 respectively.

### Knowledge about heart failure

In this study about 192(57.3%) of the participants were not knowledgeable about heart failure.

### Attitude towards themselves and other people

Regarding attitude towards themselves and other people for illness management more than half 222(66.3%) of them had good attitude.

### **Social and behavioral attributes**

Out of total study subjects 323 (96.4 %) live with some body and only 12(3.6%) live alone. Two hundred three (60.6%) of the respondents had poor relation with medical staff. Majority 315(94%) were non smokers and 309 (92.2%) were non alcohol consumers. Among the study subjects 306(97.3%) had discussion with their family or relatives about their illness while 9 (2.7%) did not visit health facility after discussion. Regarding health information 145(43.3%) of the participants had been visited by health extension worker at their home while only 66(45.5%) of them went to health facility after the visit within the past six months (**Table3**).

Table 3 Social and behavioral attributes of clients with CHF attending JUSH, Oromia region south west Ethiopia March1-April 30, 2016 GC

<b>Variables</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percent%</b>
<b>Living arrangement</b>	Living with some one	323	96.4
	Living alone	12	3.6
	Total	335	100.0
<b>Relationship with health care professionals</b>	Poor	203	60.6
	Good	132	39.4
	Total	335	100.0
<b>Do you smoke cigarette</b>	No	315	94.0
	Yes	20	6.0
	Total	335	100.0
<b>Do you drink alcohol</b>	No	309	92.2
	Yes	26	7.8
	Total	335	100.0
<b>Discussion with families or relatives about illness</b>	Yes	315	94.0
	No	20	6.0
	Total	335	100.0
<b>Visit health facility after discussion</b>	Yes	306	97.1
	No	9	2.9
	Total	315	100.0
<b>Health extension visit within the past 6 month</b>	No	190	56.7
	Yes	145	43.3
	Total	335	100.0
<b>Visit of health facility after health extension visit</b>	No	79	54.5
	Yes	66	45.5
	Total	145	100.0

## Factors associated with health seeking behavior

Binary logistic regression indicated that some of socio-demographic factors showed statistical significance to health seeking behavior at 5% significance level.

Table 4 Bivariate analysis of factors associated with health seeking behavior of the study subjects, JUSH, 2016.

		Health seeking behavior				
Variables		Good	Poor	COR	CI	p-value
<b>Distance from health facility</b>	<1 KM	34(54.8%)	28(45.2%)	1		
	1-3 KM	56(42.1)	77(57.9%)	0.599	(0.33,1.09)	0.098*
	3.1-5 KM	43(51.2%)	41(48.8%)	0.864	(0.45,1.67)	0.663
	≥5 KM	7(12.5%)	49(87.5%)	0.118	(0.05,0.30)	<0.001**
<b>Monthly income</b>	<500	58(35.6%)	105(64.4%)	0.606	(0.39,0.94)	0.025**
	≥500	82(47.7%)	90(52.3%)	1		
<b>Take medication as prescribed</b>	Yes	131(40.6%)	192(59.4%)	1		
	No	9(75%)	3(25%)	4.397	(1.168,16.55)	0.029**
<b>Knowledge</b>	Knowledgeable	140(36.4%)	91(63.6%)	1		
	Not knowledgeable	88(45.8%)	104(54.2%)	1.481	(0.950,2.307)	0.083*
<b>Attitude</b>	Good	100(45.0%)	122(55.0%)	1		
	Poor	40(35.4%)	73(64.6%)	0.668	(0.42,1.07)	0.091*
<b>Adherence to self care behaviours</b>	Good	88(58.7%)	62(41.3%)	1		
	Poor	52(28.1%)	133(71.9%)	0.275	(0.18,0.44)	<0.001**
<b>Duration of stay with heart failure</b>	< 1 year	27(55.1%)	22(44.9%)	1.879	(1.02,3.46)	0.043*
	≥1year	113(39.5%)	173(60.5%)	1		
<b>Occupation</b>	Government employee	11(37.9%)	18(62.1%)	1		
	Merchant	29(56.9%)	22(43.1%)	2.157	(0.85,5.48)	0.106*
	House wife	41(42.7%)	55(57.3%)	1.220	(0.52,2.86)	0.648
	Farmer	54(38.0%)	88(62.0%)	1.004	(0.44,2.29)	0.992
	Other	5(29.4%)	12(70.6%)	0.682	(0.19,2.46)	0.559
<b>Ethnicity</b>	Oromo	93(37.7%)	154(62.3%)	1		
	Amhara	19(46.3%)	22(53.7%)	1.430	(0.74,2.78)	0.292
	Gurage	10(47.6%)	11(52.4%)	1.505	0.616,3.681	0.370
	Tigre	7(77.8%)	2(22.2%)	5.796	(1.18,28.49)	0.031**

Table 4 cont...						
<b>Place of residence</b>	Other	11(64.7%)	6(35.3%)	3.036	(1.08,8.48)	0.034**
	Urban	43(48.3%)	46(51.7%)	1		
	Rural	97(39.4%)	149(60.6%)	0.696	(0.43,1.14)	0.146*
<b>Family size</b>	<5	63(48.5%)	67(51.5%)	1		
	≥5	77(37.6%)	128(62.4%)	0.640	(0.41,0.99)	0.049**
<b>Age category</b>	18-25	20(52.6%)	18(47.4%)	1		
	26-35	19(43.2%)	25(56.8%)	0.684	(0.27,1.64)	0.394
	36-50	40(38.1%)	65(61.9%)	0.554	(0.26,1.17)	0.122*
	≥50	61(41.2%)	87(58.8%)	0.631	(0.31,1.29)	0.208*
<b>Number of sign and symptom experienced</b>	1	8(38.1%)	13(61.9%)	1		
	2	24(46.2%)	28(53.8%)	1.393	(0.49,3.92)	0.531
	3	33(47.1%)	37(52.9%)	1.449	(0.53,3.93)	0.466
	4	58(36.0%)	103(64.0%)	0.915	(0.36,2.34)	0.853
	5	17(56.7%)	13(43.3%)	2.125	(0.68,6.64)	0.195*
<b>Relationship with medical staff</b>	Good	68(51.5%)	64(48.5%)	1		
	Poor	72(35.5%)	131(64.5%)	0.517	(0.33,0.81)	0.004**
<b>Alcohol consumption</b>	Yes	14(53.8%)	12(46.2%)	1.694	(0.76,3.79)	0.198*
	No	126(40.8%)	183(59.2%)	1		
<b>Number of medication taken</b>	1	7(25%)	21(75%)	1		
	2	34(46.6%)	39(53.4%)	2.615	(0.99,6.91)	0.052*
	3	47(35.3%)	86(64.7%)	1.640	(0.65,4.14)	0.296
	4	36(47.4%)	40(52.6%)	2.700	(1.03,7.09)	0.044*
	5	14(63.6%)	8(36.4%)	5.2500	(1.55,17.77)	0.008**
	6	2(66.7%)	1(33.3%)	6	(0.47,76.71)	0.168*
<b>Side effect experienced</b>	Yes	54(49.1%)	56(50.9%)	0.642	(0.41,1.02)	0.059*
	No	86(38.2%)	139(61.8%)	1		
<b>Knowledge cause of heart failure</b>	Yes	47(51.6%)	44(48.4%)	1		
	No	93(38.1%)	151(61.9%)	0.577	(0.36,0.94)	0.026**

Significance level  $p < 0.25^*$

$p < 0.05^{**}$

Multivariable logistic regression analysis was fitted to determine factors associated with health seeking behavior. Factors that showed significance at  $p$ -value  $< 0.25$  were included into the final multivariable model for analysis.

The result of the analysis indicates adherence to self care behaviours, attitude, income, knowledge, duration of CHF, distance from health facility, taking medication as prescribed were significantly association.

Study subjects who have health facility at a distance of 3 KM were less likely to have good health seeking behavior when compared with respondents at 1 Km [AOR (95% CI of OR) = 0.457(0.22,0.94)], as well as respondents at distance of 5 km were also less likely to good health seeking behavior when compared with individuals at distance of 1 km at [AOR (95% CI of OR) = 0.415(0.19,0.93)] and study subjects those who do not know the distance of health facility from were less likely to good health seeking behavior when compared with respondents at 1 km from health facility at [AOR (95% CI of OR) = 0.065(0.02,0.18)].

Respondents having per monthly income of less than 500 ETB where less likely to adhere to good health seeking behavior when compared with respondents those had greater or equal to 500 ETB at [AOR (95% CI of OR) = 0.581 (0.35, 0.98)].

Study participants who did not take their medication as prescribed were 8.6 more likely to adhere to good health seeking behavior when compared with participants taking their medication as prescribed at [AOR (95% CI of OR) = 8.6(1.86,39.59)].

Respondents those were not knowledgeable about heart failure where 2.25 more likely to adhere to good health seeking behavior when compare with knowledgeable respondents at [AOR (95% CI of OR) = 2.25(1.31, 3.86)].

Study subjects having poor self care were less likely to adhere to good health seeking behavior when compared to subjects having good self care at [AOR (95% CI of OR) = 0.191 (0.11,0.33)]

Study participants having poor attitude towards illness management were less likely to adhere to good health seeking behavior when comapered with participants having good health seeking behavior at [AOR (95% CI of OR) =0.445(0.25, 0.81)]

Respondents who had chronic heart failure less than one year were 2.3 times more likely to adhere to good health seeking behavior when compared with individuals having chronic heart failure greater than or equal to one year at [ AOR (95% CI of OR) = 2.3 (1.12,4.73)](Table 5).

Table 5 Multivariable logistic regression analysis of factors affecting health seeking behavior among patients with chronic heart failure attending JUSH, South west Ethiopia, March 1-April 30,2016 GC.

Variables	Health seeking behavior					
		Good	Poor	COR(95%)CI	AOR(95%)CI	p-value
Distance from health facility	<1 KM	34(54.8%)	28(45.2%)	1		
	1-3 KM	56(42.1)	77(57.9%)	0.599(0.33,1.09)	0.457(0.22,0.94)	0.034*
	3.1-5 KM	43(51.2%)	41(48.8%)	0.864(0.45,1.67)	0.415(0.18,0.92)	0.032*
	≥5	7(12.5%)	49(87.5%)	0.118(0.05,0.30)	0.065(0.02,0.18)	<0.001*
Monthly income	<500	58(35.6%)	105(64.4%)	0.606(0.39,0.94)	0.581(0.34,0.97)	0.041*
	≥500	82(47.7%)	90(52.3%)	1		
Take medication as prescribed	Yes	131(40.6%)	192(59.4%)	1		
	No	9(75%)	3(25%)	4.397(1.17,16.55)	8.592(1.86,39.59)	0.006*
Knowledge	Knowledgeable	140(36.4%)	91(63.6%)	1		
	Not knowledgeable	88(45.8%)	104(54.2%)	1.481(0.95,2.31)	2.246(1.30,3.86)	0.003*
Attitude	Good	100(45.0%)	122(55.0%)	1		
	Poor	40(35.4%)	73(64.6%)	0.668(0.42,1.07)	0.445(0.25, 0.81)	0.008*
Adherence to self care behaviours	Good	88(58.7%)	62(41.3%)	1		
	Poor	52(28.1%)	133(71.9%)	0.275(0.18,0.44)	0.191(0.11,0.33)	0.000*
Duration of stay with heart failure	< 1 year	27(55.1%)	22(44.9%)	1.879(1.02,3.46)	2.3(1.11,4.73)	0.024*
	≥1year	113(39.5%)	173(60.5%)	1		
Occupation	Government employee	11(37.9%)	18(62.1%)	1		
	Merchant	29(56.9%)	22(43.1%)	2.157(0.85,5.48)	2.29(0.77,6.83)	0.134
	Housewife	41(42.7%)	55(57.3%)	1.220(0.52,2.86)	1.124(0.40,3.16)	0.824
	Farmer	54(38.0%)	88(62.0%)	1.004(0.44,2.29)	1.4(0.53,3.74)	0.5
	Other	5(29.4%)	12(70.6%)	0.682(0.19,2.46)	0.44(0.09,1.974)	0.283
Ethnicity	Oromo	93(37.7%)	154(62.3%)	1		
	Amhara	19(46.3%)	22(53.7%)	1.430(0.74,2.78)	1.458(0.65,3.27)	0.36
	Gurage	10(47.6%)	11(52.4%)	1.505(0.62,3.68)	1.52(0.453,5.084)	0.49



Table 5 cont...						
	Tigre	7(77.8%)	2(22.2%)	5.796(1.18,28.49)	4.2(0.65,28.56)	0.132
	Other	11(64.7%)	6(35.3%)	3.036(1.09,8.48)	3.2(0.958,10.75)	0.06
<b>Place of residence</b>	Urban	43(48.3%)	46(51.7%)	1		
	Rural	97(39.4%)	149(60.6%)	0.696(0.43,1.14)	0.741(0.23,1.701)	0.741
<b>Family size</b>	<5	63(48.5%)	67(51.5%)	1		
	≥5	77(37.6%)	128(62.4%)	0.640(0.41,0.99)	0.823(0.39,1.71)	0.602
<b>Age.0 category</b>	18-25	20(52.6%)	18(47.4%)	1		
	26-35	19(43.2%)	25(56.8%)	0.684(0.29,1.64)	0.605(0.19,1.95)	0.4
	36-50	40(38.1%)	65(61.9%)	0.554(0.26,1.17)	0.321(0.11,0.92)	0.034
	≥50	61(41.2%)	87(58.8%)	0.631(0.31,1.29)	103(0.163,1.18)	0.103
<b>Number of sign and symptom experienced</b>	1	8(38.1%)	13(61.9%)	1		
	2	24(46.2%)	28(53.8%)	1.393(0.49,3.92)	1.59(0.45,5.64)	0.469
	3	33(47.1%)	37(52.9%)	1.449(0.53,3.93)	1.323(0.37,4.65)	0.662
	4	58(36.0%)	103(64.0%)	0.915(0.36,2.34)	1.079(0.32,0.38)	0.902
	5	17(56.7%)	13(43.3%)	2.125(0.68,6.64)	2.5(0.58,10.8)	0.220
<b>Relationship with medical staff</b>	Good	68(51.5%)	64(48.5%)	1		
	Poor	72(35.5%)	131(64.5%)	0.517(0.33,0.81)	0.66(0.36,1.20)	0.174
<b>Alcohol consumption</b>	Yes	14(53.8%)	12(46.2%)	1.694(0.76,3.79)	0.753(0.26,2.18)	0.6
	No	126(40.8%)	183(59.2%)	1		
<b>Type of medication taken in number</b>	1	7(25%)	21(75%)	1		
	2	34(46.6%)	39(53.4%)	2.615(0.99,6.91)	2.545(0.78,8.31)	0.122
	3	47(35.3%)	86(64.7%)	1.640(0.65,4.14)	1.721(0.56,5.3)	0.344
	4	36(47.4%)	40(52.6%)	2.700(1.027,7.09)	2.253(0.66,7.64)	0.192
	5	14(63.6%)	8(36.4%)	5.2500(1.55,17.78)	2.242(0.466,10.79)	0.314
	6	2(66.7%)	1(33.3%)	6(0.48,76.71)	4.046(0.18,90.3)	0.378
<b>Side effect experienced</b>	Yes	54(49.1%)	56(50.9%)	0.642(0.41,1.02)	0.584(0.33,1.04)	0.065
	No	86(38.2%)	139(61.8%)	1		
<b>Knowledge cause of heart failure</b>	Yes	47(51.6%)	44(48.4%)	1		
	No	93(38.1%)	151(61.9%)	0.577(0.36,0.94)	1.12(0.568,218)	0.74

P-value <0.05\*

## CHAPTER SIX

### **Discussion**

Health-seeking behavior is an individual's needs to the promotion of maximum well-being, recovery and rehabilitation; this could happen with or without health concerns and within a range of potential to real health concerns. It is preceded by decision making process that is further governed by individual and /or house hold behavior, community norms and expectations as well as provider related characteristics and behavior. The inter play of certain factors is central in choice of health seeking option (6, 7).

Over all the finding of the study demonstrated that more than half 58.2% of respondents had poor health seeking behavior with only 41.8% of them having good health seeking behavior. Similar results were reported from studies conducted in South Africa and India which showed less good health seeking behavior, 27% and 26.83% respectively were reported to be the proportion who had poor health seeking behavior (16, 19).

The study reveals that income was significantly associated to health seeking behavior, which is consistent with studies conducted in Mayanmar(18), Dharan(17),Kwazulu(20)and North West of Ethiopia in 2013 (35).

The study result indicates that distance from health facility was significantly associated with good health seeking behavior which is consistent with study conducted in Dharan that reported 25.3% of the respondents had poor health seeking behavior because of far distance between their homes and health facility (17), A Nigeria study also reported that distance was significantly associated with health seeking behavior the of the study population (40).

The study result indicates that not taking medication as prescribed was significantly associated with good health seeking behavior. This might be explained as those respondents who are not good at taking medication as prescribed may need frequent consultations with their physicians as how to comply with good health seeking compared to their counterparts. In this study 96.4% of respondents take their medication as prescribed which was consistent with findings in the studies conducted in Japan and Mpumalanga (28, 30).

According to this study adherence to self care behavior were significant to health seeking behavior which is consistent with study conducted in USA. The result of the study indicates that more than half 185(55.2%) of the study participants had poor adherence with self care behavior which was consistent with study conducted in 2012 by Jemal which was 59.2% of them were poorly adhered (22).

The study result reveals that attitude of respondents towards illness management was significantly associated with health seeking behavior which is similar with study conducted in united state of America (39). The study result indicates that 33.7% had poor attitude toward themselves and other people to manage their illness, and this is similar to a report from study conducted in Dharan (17) which showed 41% of the participants had poor attitude towards health workers to their need and treatment. Further more the result can be supported by study conducted in Nigeria on health seeking behavior among the rural Dwellers which states that community's ideas and attitudes toward health and illness affect the way they utilize health services that in turn can affect their act of seeking health(10).

The duration of time the patients are living with heart failure was also significantly associated with health seeking behaviours of individuals which is consistent with the study conducted in Malasia that states duration of illness was significant associated with health seeking behavior. In this study respondents had clinical disease for less than one year were found to be more likely to seek health compared to those who live with the disease more than a year (41).

According to this study knowledge about heart failure was significantly associated with associated with health seeking behavior of individuals, similar result was reported from study conducted in Dharan (17). Result of the study indicates that 57.2% of respondents were not knowledgeable, which is more than that 75% reported by Jemal in 2012(22), and was less than 42% reported from Pakistan (38). The difference might be due to increased awerness, difference economic status and availability of health information.

Further more the result of this study indicates that place of residence was not significantly associated to health seeking behavior but study conducted in India indicates that there was significant association between place of residence and health seeking behavior (17). The difference might be due to difference in education status, attitude of illness management and availability of health facility difference between study areas.

In this study co-morbidity and family support were not significantly associated with health seeking behavior of participants but study conducted in Malaaysia states that there was significant association between health seeking behavior and the two factors (comorbidity and family support) (41). Here the difference might be difference in disease perception, knowledge of disease and educational status of study participants as well as disease knowledge and educational status of family members.

Religion was not significantly associated to health seeking behavior in this study but study conducted in Uganda states there was significant association between religion and health seeking behavior (21). The difference might be due difference in educational status as well as awareness creation difference of the two study areas.

### **Limitation of the study**

The patients were limited to single hospital which cannot be generalized to large community level.

Since health seeking behavior was measured by self reporting there might be recall bias.

On another hand since the study was cross-sectional it may not be able to indicate cause and effect relationship at a point of time.

## **CHAPTER SEVEN**

### **7. CONCLUSION AND RECOMMENDATION**

#### **7.1. Conclusion**

In this study poor health seeking behavior is experienced in more than half of participants. General determinants such as adherence to self care behaviors, taking medication as prescribed, attitude towards themselves and other people towards managing their illness, distance from health facility, monthly income, duration of heart failure, knowledge about heart failure were significant factors that affect health seeking behaviours of individuals.

#### **7.2. Recommendation**

This study found out important modifiable factors. Therefore based on the above findings the following recommendations are forwarded for possible management and reduction of the problem.

- Attitude and self care behavior of patients were most important factors that affect patients' health seeking activities so that nurse working in JUSH chronic follow up and medical ward should respect patient give enough information on self care that should be delivered for patients.
- A further study in large scales on many hospitals is recommended on factors affecting health seeking behaviors including qualitative part. Studies conducted in health seeking behavior were not including knowledge about the illness, so the researchers conducting studies on health seeking should include knowledge in the future.

## References

1. Misganaw A., Haile Mariam D., Ali A. *et al.* Epidemiology of Major Non-communicable Diseases in Ethiopia: A Systematic Review. *J HPN*. 2014; 32(1):1-13.
2. Siabani S., Leeder S., Davidson P. Barriers and facilitators to self-care in chronic heart failure: a meta-synthesis of qualitative studies. *Springer Plus* 2013 ;2:320.
3. Young L. Conducting Behavioral Intervention Research in Rural Communities: Barriers and Strategies to Recruiting and Retaining Heart Failure Patients in Studies. *NHC*; 2015 1: 1-8.
4. Siabani S., Leeder S., Davidson P. Barriers and facilitators to self-care in chronic heart failure: a meta-synthesis of qualitative studies. *Springer Plus* 2013 ;2:320.
5. Ruf V., Stewart S., Pretorius S. *et al.* Medication adherence, self-care behaviour and knowledge on heart failure in urban South Africa: the Heart of Soweto study. *Cardiovascular Journal of Africa*. 2010; 21( 2):1-7 .
6. Arena R, Humphrey R, Peberdy MA. Using the Duke Activity Status Index in heart failure. *J Cardiopulm Rehabil*. 2002; 22(2):93–95.
7. Poortaghi S., Raiesifar A., Bozorgzad P. *et al.* Evolutionary concept analysis of health seeking behavior in Nursing; asystematic review. *BMC Health services Research*. 2015; 15:523.
8. SEF/PRS/STD-GPA/WHO. A rapid assessment of health seeking behaviour in relation to sexually transmitted disease. June 1995.
9. Omotosho O. Health-seeking behavior among the rural dwellers in Ekiti State, Nigeria. *Int. Multi-Disciplinary J.*, 2012; 4(2): 125-138.
10. Buquet & Curtis, Socio-demographic variation in perceived illness and the use of primary care: The value of community survey data for primary care service planning” *Soc. Sci. and Med*. 1986;23 (7):737-44.
11. Nguma LK. Health seeking and health related behavior for type 2 diabetes mellitus among adults in an urban community in Tanzania. PhD thesis. 2010. University of Otago, Department of Public Health. Google Scholar.

12. VanderwasM, JaarsmaM. MoserD. *et al* Compliance in heart failure patients :the importance of knowledge and beliefs.eurheartj.2006;27:434-440.
13. Mendez GF, Cowie MR. The epidemiological features of heart failure in developing countries: a review of the literature. International journal of cardiology. 2001; 80: 213–219.
14. Miki Patterson M. *Management of Patients With Complications From Heart Disease* 12<sup>th</sup> ed textbook of medical surgical nursing; volume1:wolters kluwer lipponcott Williams and wilkins publishings;2010:825-826
15. Andre Pascal Kengne, Anastase Dzudie *et al* Heart failure in sub-Saharan Africa: A literature review with emphasis on individuals with diabetes Vasc Health Risk Manag. Feb 2008; 4(1): 123–130.
16. Ejemen p. Osamor. Health care seeking for hypertension in south west Nigeria. Journal of the BSA medsoc Group.2011; 6(1):2-16.
17. Otwombe K. Dietrich J. Laher.F.*et al*. Health seeking behavior by gender among adolescents in Soweto, South Africa. Glob health action.2015;8:5-9.
18. Adhikar D,Rijal D. Factors affecting health seeking behavior of senior citizens of Dharan.J.Nonel medical college.2015;3(1):2-8.
19. Moes S.,Tha K.,Naing D.,Htike M. Health-seeking-behaviour-of-elderly-in-myanmar.International Journal of collaborative of collaborative research on iternal medicine and public health.2012;4(8):3-7.
20. Neeru Sharma et al., Health Seeking Behaviour among Women: a Study of Rural, Urban and Tribal Women of Jammu (Jand K). International Journal of Recent Scientific Research. 2015;6(9):4-9.
21. Case Menendez, A Ardington C., Health seeking behaviour in Northern KwaZulu-Natal“ CSSR Working Paper 05/116 (submitted to Social Science and Medicine), 2005.

22. Lubega.G,Musinguzi B.,Omiel P.,Tumuhe J. Determinants of health seeking behaviour among men in Luwero District. *J. Educ. Res. Behav. Sci.*2015;4(2):8-18.
23. Beker J, Belachew T, Mekonin A, Hailu E .Predictors of Adherence to Self-care Behaviour among Patients with Chronic Heart Failure Attending Jimma University Specialized Hospital Chronic Follow up Clinic, South West Ethiopia. *J Cardiovasc Dis Diagn.* 2014;2(6): 2-180.
24. Pourreza, A. Khabiri R., Rahimi A. *et al.* Health Care -Seeking Behavior in Tehran, Islamic Republic of Iran.*World Appl. Sci. J.*2011;14(8):5-8.
25. Bentley B, De Jong MJ, Moser DK, *et al.* Factor's related to non adherence to low sodium diet recommendations in heart failure patients. *European Journal of Cardiovascular Nursing* 2005, 4:331-336.
26. Riegel B, Carlson B. Facilitators and barriers to heart failure self-care.*Patient Education and Counseling* 2002, 46:287-295.
27. Rucker-Whitaker C, Flynn KJ, Kravitz G, *et al.* Understanding African-American participation in a behavioral intervention: results from focus groups. *Contemporary Clinical Trials* 2006, 27:274-286.
28. Jeon Y.Kraus S. Jowsey T.Glasgow N. The experience of living with chronic heart failure: a narrative review of qualitative studies. *BMC Health Services Research* 2010; 10:77:5-9.
29. Kato N., Kinugawa K., Ito N., et al Adherence to self-care behavior and factors related to this behavior among patients with heart failure in Japan, *Heart and Lung*2009; 1:1:6-12
30. Daryasari G., Karkezloo N., Mohammadnejad E. ,*et al* Study of the self-care agency in patients with heart failure.*IJCCN*;2012;4:4:203-208.
31. Govender I., Eche M. Health-seeking behaviour of people with sexually transmitted infections in the community of Nkomazi East, Mpumalanga, South Afr. *J. Epidemiol .Infection*, 2012 ; 27(4), 195-198.
32. Daninguez R.Health seeking behavior of patients with diabetes mellitus in Baguio city.*NLR Journal*,2010:3-4,12-22
33. Afolabi M. Darogale V. Irinale A.*et al.* Health seeking behavior and student perception of health care services in university community Nigeria.*Health.*2013;5:817-824.



34. González B., Lupón J., Parajón T. *et al.* Use of the European Heart Failure Self-care Behaviour Scale (EHFScBS) in a Heart Failure Unit in Spain. *Rev Esp Cardiol.* 2006;59(2):166-70
35. Musoke D., Boynton P., Butler C. *et al.* Health seeking behavior and challenges in utilizing health facilities in Wakiso district, Uganda, *African Health science.* 2014;14(4):2-5
36. Senbato M., Tadesse S., Tadesse T. *et al.* Appropriate health seeking behaviors and associated factors among people who had cough for at least two weeks in Northwest Ethiopia: a population based cross-sectional study. 2013;13: 1222
37. Leventhal EA, Prohaska TR Age, symptom interpretation, and health behavior. *Behaviour J Am Geriatr Soc.* 1986; 34: 185-191.
38. Hiluf H., Ayele A., Abera G., *et al.* Assessment of Patient Delay in Healthcare Seeking Behavior and Associated Factors among Women with Tuberculosis in Governmental Health in Stitution, Mekelle City, Tigray, Ethiopia, 2012. *American Journal of Nursing Science.* 3(5); 2014, 66-72.
39. Khan M., Jafary F., Jafar T. *et al* knowledge of modifiable risk factors of heart disease among patients with acute myocardial infarction in Karachi Pakistan: a cross sectional study. *BMC cardiovascular disorders.* 2006;6-18.
40. Hughes C. Factors associated with health seeking behaviours of Native Hawaiian men. *PACIFIC HEALTH DIALOG.* 2004; 11 (2):176-182.
41. Ukwaa K., Alobu I., Nweke C., Onyenwe E. Health seeking behaviours and treatment its determinants among pulmonary tuberculosis patients in rural Nigeria; a cross sectional study. *BMC Health service research.* 2013; 13-25.
42. Abidin S., Sultan R., Shamsuddin K. Prevalence and determinants of appropriate health seeking behavior among known diabetes: results from a community based survey. *Advances in Epidemiology.* 2014:4-7
43. Geremew H. Health Locus of Control and Health Seeking Behaviors of Employees in Woredas of Gulele Sub City. Master thesis. 2015. Addis Ababa University College of Education and Behavioral Studies School of Psychology. Google scholar.
44. Jimma University specialized hospital [Internet]. [ cited 2016 Feb 1] Available from <https://www.ju.edu.et/JUSH- Jimma University specialized hospital>.

# Annexes Questionnaire

Annex 1 Subject Information sheet

**JIMMA UNIVERSITY**  
College of Health Sciences,  
Department of nursing and midwifery

## A. Consent form

### Information to Study participants

**Introduction:** This information sheet and consent form is prepared for the aim of explaining the research project that you are asked to join by the principal investigator of research.

Greeting \_\_\_\_\_

My name is \_\_\_\_\_ I am a data collector for the research being conducted by Getahun Fetensa a post graduate student in adult health nursing at Jimma University College of health sciences Department of nursing and midwifery. He is conducting a study on Health-seeking behavior and associated factors among chronic heart failure clients of JUSH. The information collected from this research project will be kept confidential and inclosed cabinet, without your name and other identifiers. In addition, it will not be revealed to anyone except the investigators. All the responses given by participants will be kept confidential by using key and locked system like computer password whereby no one will have an access to it. You have full right to withdraw from this study at any time without a need to mention the reason why you wanted to withdraw. We value your input to make this study a successful one.

### Aim of the study

This questionnaire is meant to collect information that will be used as MSc project for Getahun Fetensa.

If you have any question related to this study you can call to Getahun Fetensa on 0910344425

The interview consist a total of 68 questions which may last for 35 minutes.

We would like to say thank you in advance for your participation.

Are you willing to participate in the study? A. Yes B. No

Respondent's signature..... Date.....

**Annex 2 Data collection forms**

**I. Socio-demographic information**

Card no	Unit		
S.no	Questions	Choice	Skip
101.	Age	_____ in years	
102.	Sex	A. Male B. Female	
103.	Religion	A. Orthodox B. Muslim C. protestant D. catholic E. others specify	
104.	Ethnic group	A. Oromo B. Amhara C. Gurage D. Tigre E. Others(specify)_____	
105.	Educational back ground	A. Illiterate (cannot read and write) B. Can read and write C. Primary school D. High school E. Other(specify)_____	
106.	Occupation	A. Government employee B. Merchant C. House wife D. Farmer E. Other(specify)_____	

107.	Marital status	A. Single B. Married C. Widowed D. Divorced E. Separated	
108.	Place of residence	A. urban B. rural	
109.	Distance to H/facility	A. Less than a kilometer B. Three kilometers C. Five kilometers D. Do not know	
110.	Income (monthly in ETB)	A. less than 500 ETB B. 500-1000ETB C. greater than1000ETB	
111.	Family size	_____in number	

**Part II: Questions regarding clinical factors of heart failure**

201.	How long since being diagnosed with heart failure?	A. Six months B. One year C. Above one year	
202.	Do you know the cause of the disease?	A. Yes B. No	<b>If no pass to que.204</b>
203.	If yes, what is/are the causes?	A. Hypertension B. Valvular stenosis C. Congenital heart disease D. Others(please specify)-----	
204.	Can you mention the sign and symptoms of the disease?	A. Yes B. No	<b>If no skip to _206</b>
205.	If yes, what are the common symptoms?(multiple answers are	A. Shortness of breath on activity	

	possible)	B. Persistent cough C. Weight Gain D. Swelling of ankles and legs E. Fatigue after minor exertion F. Others(specify)	
<b>206.</b>	What is the important care you should take?(multiple answers are possible)	A. Adequate rest B. Limit exercise C. Salt restriction D. Daily weighing E. Using more pillows F. Others(specify)_____	
<b>207.</b>	Have you been told about the cares that you should take by health worker?	A. Yes B. No	<b>If no __209</b>
<b>208.</b>	If yes, what were these cares that you should take?	A. A self-weights behavior B. Salt restriction diet C. Limiting alcohol consumption D. Fluid intake restriction E. all F. Others(specify)_____	
<b>209.</b>	Do you take you medication as it prescribed?	A. Yes B. No	
<b>210.</b>	Is there any side effect you experience after you start medication	A. Yes B. No	
<b>211.</b>	If yes you have stop taking medication?	A. Yes B. No	

### Part III. Questions of health seeking behavior

**Instruction** –Each item below is a statement about your experience of health seeking behavior (identification of symptoms of illness, health care visit and compliance with treatment). Beside each statement is a scale which ranges from Not at all (1) to Always (4).

Please make sure that you answer **EVERY ITEM** and that you circle **ONLY ONE** number per item.

S.no		Not at all	some times	Most of the time	Always
301.	you aware of the <b>warning signs/symptoms of your illness</b> related to the illness	1	2	3	4
302.	you were able to recognize your symptoms of illness early	1	2	3	4
303.	you were aware of the possible <b>progression of your disease</b>	1	2	3	4
304.	you think you were about the <b>treatment options</b> regarding your disease	1	2	3	4
305.	When you identified the symptom of your illness do you start to get health care service early	1	2	3	4
306.	If there was an appointment from the health facility, you meet the recommended number of visits as per the recommendation of the health professional	1	2	3	4
307.	you think that you got the right professional to your illness	1	2	3	4

<b>308.</b>	You look for additional information regarding your health?	1	2	3	4
<b>309.</b>	Do you ever have problems remembering to take your medication or implement treatment advice	1	2	3	4
<b>310.</b>	When you feel better, do you stop taking your medicine or stop to do according to your treatment advice	1	2	3	4
<b>311.</b>	Sometimes if you feel worse when you take your medicine or implement treatment advice, do you stop taking it or stop implementing it	1	2	3	4

### Annex.3. European Heart Failure Self-Care Behavior Scale

Below there is a list of ways you might have felt or behaved. Please State your level of agreement on the importance of the following self care behaviors.

European Heart Failure Self-Care Behavior Scale		Level of agreement				
s.no.		I completely Agree(1)	I agree (2)	Barely agree (3)	I don't agree (4)	I don't agree at All (5)
401.	I weigh myself every day	1	2	3	4	5
402.	If I get short of breath, I take it easy	1	2	3	4	5
403.	If my shortness of breath increases, I contact a hospital, my doctor or nurse	1	2	3	4	5
404.	If my feet/legs become more swollen than usual, I contact a hospital, my doctor or nurse	1	2	3	4	5
405.	If I gain 2 kg in 1 week, I contact a hospital, my doctor or nurse	1	2	3	4	5
406.	I limit the amount of fluids I drink (not more than 1-1.5 L/d)	1	2	3	4	5
407.	If I experience increased fatigue, I contact a hospital, my doctor or nurse	1	2	3	4	5
408.	I take a rest during the day	1	2	3	4	5
409.	I eat a low-salt diet	1	2	3	4	5
410.	I take my medication as prescribed	1	2	3	4	5
411.	I exercise regularly	1	2	3	4	5

“Good adherence” with a score of 1 or 2, or “poor adherence” with scores of 3, 4, or 5.



#### Annex. 4. Items of the Heart Failure Knowledge Scale

Items of the Heart Failure Knowledge Scale				
S.no		Yes	No	I don't know
501.	Weight check is important to evaluate fluid retention?	1	2	3
502.	When your condition of heart failure is worse, you will have the shortness of breath if you lie on your back and you will feel much better if you sit up	1	2	3
503.	Heart failure is a condition in which the heart is not able to pump a sufficient amount of blood through the body	1	2	3
504.	It is recommended that patients with heart failure should not do physical exercise no matter how severe their heart failure is	1	2	3
505.	One of the symptoms when the lungs become congested with fluid is shortness of breath	1	2	3
506.	Getting a cold is a burden to the patients with heart failure	1	2	3
507.	Patients with heart failure do not have to take medications when their heart conditions are stable	1	2	3
508.	Diuretics increase the excretion of water from the body	1	2	3

**These are questions for assessing Attitude towards them selves and other people towards them.**

<b>s.no</b>	<b>Questions</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>509</b>	If I am sick, it is my own behavior that determines how soon I get well again.					
<b>510</b>	No matter what I do, if I am going to get sick, I will get sick					
<b>511</b>	Having regular contact with my physician is the best way for me to avoid illness					
<b>512</b>	Most things that affect my health happen to me by accident					
<b>513</b>	Whenever I don't feel well, I should consult a medically trained professional.					
<b>514</b>	My family has a lot to do with my becoming sick or staying healthy.					
<b>515</b>	When I get sick, I am to blame.					
<b>516</b>	Luck plays a big part in determining how soon I will recover from an illness.					
<b>517</b>	Health professionals control my health.					
<b>518</b>	My good health is largely a matter of good fortune.					
<b>519</b>	The main thing which affects my health is what I do myself					
<b>520</b>	If I take care of myself, I can avoid illness.					
<b>521</b>	Whenever I recover from an illness, it is usually because other people (for example, doctors, nurses, family, friends) have been taking good care of me					
<b>522</b>	If it's meant to be, I will stay healthy.					
<b>523</b>	If I take the right actions, I can stay healthy.					
<b>524</b>	Regarding my health, I can only do what my doctor tells me to do.					

NB: 5(strongly agree), 4(mediumly agree)3 (Disagree),2 (mediumly disagree) 1 (strongly disagree)

**Part VI questions on social and behavioral attributes**

s.no	Questions	Choice	Skip
601.	With who are you living know?	A. My family B. My relatives C. My friends D. With no body	
602.	Do you felt free ask question your doctor or nurse about your illness?	A. I can ask question without reserve B. I can ask question little reserve C. I can ask question with some reserve D. I can ask question with many reserve E. I cannot ask any thing.	
603.	Do you smoke cigarette?	A. Yes B. No	
604.	If yes how many packs do you smoke per week?	A. One B. two C. three D. greater than three	
605.	Do use alcohol?	A. Yes B. No	If no -607
606.	If you answer is yes, how many times do you use per week?	A. Once a week B. Two timea week C. Three time a week e D. More than three a week	
607.	Have discussed about your illness with your friend, family or relative?	A. Yes B. B no	If no _609
608.	If yes have gone to health facility after our discussion?	A. Yes B. No	
609.	Does health extension worker came to your home in past six month?	A. Yes B. No	
610.	If yes have you visited health facility after her visit?	A. Yes B. No	

**Part VII Record review check list**

This information's are the information that should be fulfilled from the patients record; please look it thoroughly and fill it.

s.no	Patient card no _____	Date reviewed _____
701.	Stage of heart failure according to NYHA	A. I B. II C. III D. IV
702.	Type of medication currently taken by patients( Write specific drug that patient is currently taking	_____ _____ _____
703.	Confirmed diagnosis with the CHF of the patient	A. DM B. Hypertension C. Acute myocardial infraction D. Renal disease E. Liver disease F. Valvular heart disease G. Others(specify)_____

## **Annex. 5. Afan Oromo version of the questionnaire**

### **Gucha odeeffannoo hirmatootaaf**

#### **Yuuniiveersiitii Jimmatti kollejjii sayinsii fayyaa mummee barnoota nursingii fi Midwifarii**

##### **A. Unka walii galtee**

#### **Odeeffannoo hirmatoota qoranannichaaf**

**Seensa:** kaayyoon Guchi odeeffannoo kun fi unki walii galtee kun qophayyeef kayyoo qoranannoo qorataan armaan gadiitti isin gaafatu akka ibsuufi.

Nagaa dhaa \_\_\_\_\_

Ani maqaan koo \_\_\_\_\_ jedhama ani odeeffannoo sassabaa qorannoo barataa Digrii lammaffaa gita fayyaa dargaggootaa ogummaa nursingiin yuuniiveersiitii Jimmaa kollejjii saayinsii fayyaa baraa Geetaahuun Fatansaatiif funnanamuu dha. Qorannoon isaa mata-duree Amala fayyaa barbaaduu fi wantoota dhukkubsatoota onnee yeroo dheeraaf dhukkubsatan kan yuuniiveersiitii jimmaatti argamaniif jedhuu dha. Odeeffannoon funnanamu kun iccitiin isaa eegamaa fi kaayyoo qonichaa duwwaaf kan oluuf fi odeeffannoon waa'ee eenyummaa kan ibsu maqaa keessannii fi wantoota braakan maqaa keessan ibsu kan hin barbaachisne ta'uu dha. kana malees odeeffannoon funnamu kun qorataa duwwaaf kan laatamuu dha. odeeffannoon kun erga ssaasabamee boodas harka qorataan iccitiin isaa iccitiin komputaraan kan chufamee taa'uu ta'uu isaa isiniif mirkanneessuu barbaada. Qorannoo kanaaf deebii keennuu dhiisuus ta'ee yeroo barbaadannitti addaan kutuuf mirgi keessan seeraan eegaamaa dha. Haa ta'u malee galmaga'iinsa qorannoo kanaaf gummachi keessan murteessaa dha.

#### **Kayyoo Qoranichaa**

Gaaffileen kun odeeffannoo qorannoo barataa digrii lammaffaa kan ta'e barataa Geetaahuun Fatansaatiif Yuuniiveersiitii Jimmaatti Koollejjii saayinsii fayyaa mummee barnoota nursingii fi midwifarii ta'uufidha.

Qorraannoo kana ilaalchisee gaffii yoo qabataniif barataa Geetaahuun Fatansaa toora bilbilaa 0910344425 tiin bilbiluu dandeessu.

Gaffii fi deebiin kun walii galaangaffilee 68 qaba gaaffiifideebiin keenya hanga daqiiqaa 35 tura.

Odeeffannoo nuuf laataniif caalatti galatoomaa.

Qorannoo kana keessatti hirmachuuf fedhii qabduu? A. Eeyyee  
Mallattoo hirmatootaa \_\_\_\_\_ Guyyaa \_\_\_\_\_

B. Lakkii

**KUTAA I: GAAFFILEE WAA'EE JIREENYA DINAGDEE FI HAWAASUMMAA ILAALLATAN**

**Lakk Cardii Gita gargarsa dhukkubsataanirraa argatu**

<b>Lakk.</b>	<b>Gaffilee</b>	<b>Filmata</b>	<b>Darbi</b>
<b>101.</b>	Umrii	_____ waggaa dhaan	
<b>102.</b>	Saala	A. Dhiira                      B. Dhalaa	
<b>103.</b>	Amantii	A. Ortoodooksii B. Musliima C. Protestantii D. katooliikii E. Kan( biro haa ibsamu) _____	
<b>104.</b>	Qomoo	A. Oromoo B. Amhaaraa C. Guraagee D. Tigree E. Kan biro haa ibsamu _____	
<b>105.</b>	Sadarkaa barnootaa	A. Kan hin baranne(barreessuu fi dubbisuu kan hin dandeenye) B. Barreessuu fi dubbisuu kan danda'u C. Sadarkaa lammaffaa kan xumure D. Kan biro haa ibsamu _____	
<b>106.</b>	Hojii	A. Hojjataa mottummaa B. Daldalaa C. Haadha manaa D. Qonnaan bulaa E. Kan biro haa ibsamu _____	

<b>107.</b>	Haala fuudhaa fi heerumaa ilaachisee	A. Kan hin fuune yookiin kan hinheerumne B. Kan fuudhe/te C. Kan wal hiikan D. Kan gargarbahan	
<b>108.</b>	Bakka jireenyaa	A. Magaalaa B. Badiyaa	
<b>109.</b>	Fageenya dhabbilee tajaajila fayyaa kennanan irraa fagaatu	A. Kiiloometira tokkoo gadi B. Kiiloo meetira sadi C. Kiiloo meetira shan D. I donot know	
<b>110.</b>	Galii (argattan gara ji'atti jijjiiruun mallaqaan meeqa?)	A. Qarshii 500 gadi B. Qarshii 500-100 C. Qarshii kuma tokkoo ol	
<b>111.</b>	Baayyinni maatii	_____ lakkoofsaan	

<b>Kutaa II:Gaaffilee qorannoo dhukkuba onnee wajjin walqabatan</b>			
<b>Lakk</b>	<b>Gaaffilee</b>	<b>Filmata</b>	<b>Darbi</b>
201.	Dhukkuba onnee kana qabachuun kee erga baramee hagam ta'eera?	A. Ji'a tokko B. Ji'a lama C. Ji'a jaha D. Waggaa tokko E. Waggaa tokkoo ol	
202.	Sababbii dhukkuba kee beektaa?	A. Eeyyee B. Lakki	Deebiin- Lakkii - 204 darbi
203.	Deebiin gaaffii 202 armaan olii yoo eeyyee ta'e sababni isaa maali jetta?	A. Dhiibbaa dhiigaa B. Dhibbachuu valvoota(ujjummoota) onnee keessaa C. Dhukkuba onnee nama wajjiin dhalatu D. Kan(biroo haa ibsamu)_____	
204.	Mallattoolee dhukkuba kee kanaa ibsuu dandeessaa?	A. Eeyyee B. Lakki	Yoo lakkii ta'e - 206 tti darbi
205.	Deebiin gaffii 204 armaan olii eeyyee yoo ta'e mallattoolleen barbaachisoon maal fa'i?	A. wal hanqachuu qilleensa hargansuu B. hakkasisaa yookiin qufaa'aa itti fufaa C. ulfaatni dabaluu D. Dhiita'uu milaa fi mogolee milaa E. Hojii xiqqoo booda dadhabuu F. Hunda G. Kan( biroo haa ibsamu)_____	



206.	Dhukkuba kee kanaaf of eegaannoon murteessan ati goote maali?	A. Boqonnaa gahaa gochuu B. Sochii qamaadaangeessuu C. Ulfaatina guyyaa guyyaan ilaalamuu D. Boratii baay'ee fayyadamuu E. Hunda F. Kanbirohaaibsamu_____	
207.	Ofeegannoo gochuu qabdu kan oggeessa fayyaan sitti himame qabdaa?	A. Eeyyee B. Lakkii	Yoo Lakkii - 209 darbi
208.	Deebiin kee gaffii armaan olii yoo eeyyee ta'e of eeggannooowwan sun maal fa'i?	A. ulfaatina ofii madaluu B. nyaata ashaboo baay'ee hin qabne sorachuu C. Dhugaatii alkoolii xiqqeessuu D. Hanga dhangala'aa fudhatamu dangeessuu E. Hunda F. Kan (biro haa ibsamu)_____	
209.	Qoricha kee akka siif ajajjametti fudhattaa?	A. Eeyyee B. Lakki	
210.	Qoricha kee erga jalqabdee dhiibbaan qorichaa sirratti mul'te jiraa?	A. Eeyyee B. Lakki	
211.	Yoo eeyyee jette erga dhibbaa qorichichaa argitee qoricha kee fudhachaa jirtaa?	A. Eeyyee B. Lakki	

**Kutaa II Gaaffilee amala fayyummaa barbaaduu walqabatan**

**Qajeelfama:** Gaaffileen armaan gadii muxannoo fayaa barbaaduu keesani kanneen akka mallattoo dhukkuba adda baafachuu, dhabilee tajaajila fayyaa dhquun lalamuu fi qorchoota kennaman seeraan fudhachuu ilaalata. gaaffilee hunda dura filannoowwan sadarkaa muxannoo keessanii agarsisan gonkumaa(1) hanga Yeroo hunda jedhuutti(4) jiru. kanaaf gaffii tokkoof deebii tokko kennuu keessan sirri mirkaneefachuun deebii tokko duwwaatti mararuun agarsisaa.

Lakk	Gaaffilee	Gunku maa	Yeroo tokko tokko	Yeroo baay'ee	Yeroo hundaa
301.	Yeroo meeqaaf waa'ee mallattoolee akkeekachisa dhukkuba keetii argita?	1	2	3	4
302.	Mallattoo dhukkuba koo dafeen adda baafadhe jettee yaaddaa?	1	2	3	4
303.	Akkataa dabalii dhukkuba kee hubbadheera jettee yaaddaa?	1	2	3	4
304.	Yeroo hangamii kaaset waa'ee dhukkuba kee sirritti odeeffannoo gahaa argadhe jettee yaaddaa?	1	2	3	4
305.	Yeroo mallattoo dhukkuba kee adda bafattetti gara dhabbilee fayyaa daftee deemteetaa?	1	2	3	4
306.	Yeroo beelama dhabbilee fayyaa irraa qabduutti hanga beellamaa sitti himame hunda ni guutaa yookiin dhaqtaa?	1	2	3	4
307.	Ogeessa dhukkuba kee si gargaaruuf sirrii ta'en argadhe jettee yaaddaa?	1	2	3	4
308.	Waa'ee fayyaa kee ilaalchsee odeeffannoo dabalataa barbaaddee beektaa?	1	2	3	4
309.	Rakkoolee qorichoota kee yookiin gorsa ogeessa fayyaa akka ati hojiirra hin olchine si godhan keessa kan yaadattu qabdaa?	1	2	3	4
310.	Yeroo sitti foyyaa'uutti qorichaa kee yeroo tokko tokkoof gargar kuttee beektaa moo akkuma ogeessi fayyaa si gorsetti itti fuftaa?	1	2	3	4
311.	Yeroo tokko tokko yoo dhukkubni kee sitti jabate qoricha kee yookiin gorsa ogeessa fayyaa isa hojiirra olchitu itti ni dhabdaa?	1	2	3	4

Annex II Dhukkuba onnee maddalii of egannoo Awurrooppaatti qophaa'e.

Lakk.		Guutum aagututti Ittin walii gala(1)	Ittin wali i gala (2)	Xiqqoo n ittin walii gala(3)	Itti walii hin galu (4)	Guutum maagutu tti itti walii hin galu(5)
401	Ulfaatina koo yeroo yeroottiin ilalama	1	2	3	4	5
402	Yeroo afuura na kutu akkuma salphaatiin ilaala	1	2	3	4	5
403	Yeroo afuura kuttaaan koo natty dabale hospitalattiin nursii yookiin doctoriittiin mari'adha.	1	2	3	4	5
404	Yeroo milli koo isa kan duranii irra na dhita'u hospitalattiin nursii yookiin doctoriittiin mari'adha.	1	2	3	4	5
405	Ulfaatinni koo torbanitti kilo lama yoo dabale hospitalattiin nursii yookiin doctoriittiin mari'adha.	1	2	3	4	5
406	Hamma dhangala'aa guyya fudhadhu litira 1-1.5 tiin dhangeessa	1	2	3	4	5
407	Yeroo dadhabbiin natti dabaluu hospitalattiin nursii yookiin doctoriittiin mari'adha.	1	2	3	4	5
408	Yeroo Guyyaa boqonnaan nan fudhadha.	1	2	3	4	5
409	Nyaata ashaboon itti xiqqaateen soradha	1	2	3	4	5
410	Qoricha koo akka naaf ajajameettiin fudhadha.	1	2	3	4	5
411	Sochii qaamaa walitti aanseen hojjadha	1	2	3	4	5

**Annex III Qabxiilee waa'ee beekumsa dhukkuba onneettiin walqabattan**

Lakk	Qabxiilee madallii	Eeyyee	Lakki	Hin beeku
501	Ulfaatina ofii ilaaluun dhagala'aanqaama keessatti ba'achuu fi dhiisuu mirkanneessuuf ni gargaara.	1	2	3
502	Yeroo dhukkubbiin onnee kee sitti jabaatu afuurri kee gargar cita,yeroo dugda keen ciiftu fi yeroo teessu sirritti sitti tola.	1	2	3
503	Dhukkubbii onnee dadhabdee jechuun yeroo onneen dhiiga gahaa ta'e qaama kessa facaasuu dadhabdu jechuu dha.	1	2	3
504	Namoonni dhukkuba onnee dadhabdeen yookiin onneen isaanii dadhabde hanga dhukkubichaa hanga barbaade ta'us sochii qaamaa kammiyyuu akka hojjataniif hin gorsamu	1	2	3
505	Mallattolee yeroo sombi dhangala'aan guutamu agarsiisan keessaa tokko gargarcituu sagaalee yookiin afuura kutuudha.	1	2	3
506	Qorri dhibbaa guddaa namoota dhukkuba dadhabbii onneetin qabamaniiti.	1	2	3
507	Dhukkubsataan onneen isaanii dadhabde tokko yeroo onneen isaanii tasgaba'uutti qoricha fudhachuu hin qabani.	1	2	3
508	Qorichoonni ujjummoo fincaanii bal'isan hamma bishaanii qaama keessa bahu ni dabala.	1	2	3

Gaffiilee kunneen gaffiilee ilaalcha namoonni waa'ee dhukkuba isaani fi namoonni biro isaan irratti qabaniin wal qabatu

Lakk	Gaffiilee	1	2	3	4	5
509	yeroon dhukkubsadhe akkan dafee fayyu amala kootu akkan dafee fayyu murteessa yoom					
510	Of eegannoon barbaade yoon godheeyyuu yoon dhukkubsachuuf jedhe dhukkubsachuun koo hin oolu					
511	Yeroo dhabbataadhaan oggeessaa fayyaa waliin wal arguu koo dhukkuba koo ittisuuf murteessaa dha.					
512	Wantootni baay'een fayyaa koo midhaan akka tasaan kan na mudataniidha.					
513	Yeroo kamiyyuu yoo natti toluu baate namoota oggummaa fayyaa leenji'an dubbisuun qaba.					
514	Waa'ee fayyaan turuu koof dhukkubsachuu koof gumaatni maatii kootii murteessaa dha.					
515	Yoon dhukkubsadhu of komachuun qaba					
516	Carraan yeroo dafee fayyuu kootii baay'ee na murteessa					
517	Oggeessonni fayyaa fayyaa koo ni to'atu					
518	Fayyaa ta'uun koo harki guddaan isaa carraa gaariin murta'a.					
519	Wanti baay'een fayyaa koo miidhu wantan ani godhuu dha.					
520	Yoon of eege dhukkuba kamiyyuu of irraa ittisuu nan danda'a.					
521	Yeroon dhukkuba koo irraa fayyuuf waan namoonni akka doctoraa nursii maatii fi hiriya na kunuunsaa turaniif					
522	Osoo mallii ittin yeroo hunda fayyaa ta'an jiratee yeroo hunda fayyaan tura.					
523	Yoon murtoo sirrii fudhadhe fayyaa koon turuu nan danda'a					
524	Waa'ee fayyaa koo ilaachisee ani kaniin gochuu danda'u waan doktorri koo akkan hojjadhuuf(hojjadhu) natti hime qofaadha.					

Sirritin Ittin walii gala(1)

Giddumma galeessattan itti walii gala(2)

itti walii hn galu(3)

Giddumma galeessattan Itti walii hin galu (4)

Sirritin itti walii hin galu(5)

**Kutaa VI Gaaffilee waa'ee gochaalee hawaasummaa keessatti rawwataniin walqabatan**

Lakk	Gaaffiilee	Filannoo	Darbi
601.	Yeroo ammaa kanatti eenyu waliin jirattaa?	A. Maatii B. Fira C. Hiriyoota D. Namuu yookiin qophaa	
602.	Doktora yookiin narsii waa'ee dhukkuba kee bilisaan gaafattaa?	A. Gaaffiin qabu soda tokko malee nan gaffadha B. Gaaffiin qabu sodaan xiqqoodhaan nan gaffadha C. Gaaffiin qabu soda murtaa'aa booda nan gaaffadha D. Gaaffiin qabu soda baay'ee booda nan gaaffadha E. Gaaffii tokko illee gaaffachuu hin danda'u	
603.	Tabboo ni xuuxxaa yookiin arsitaa?	A. Eeyyee B. Lakki	
604.	Yoo deebiin kee eeyyee ta'e torbanniiti bakkettii meeqa faa xuxxa?	A. Tokko B. Lama C. Sadi D. Sadii ol	
605.	Dhugaatii alkoolii ni fayyadamtaa?	A. Eeyyee B. Lakki	Yoolakki -607
606.	Eeyyee yoo jette torbanitti al meeqa fayyadamtaa?	A. Tokko B. Lama C. Sadi D. Sadii ol	
607.	Waa'ee dhukkuba kee maatii yookiin hiriyaa kee wajjin dubbattee beektaa?	A. Eeyyee B. Lakki	
608.	Eeyyee yoo jette ergasii booda gara dhabbata fayyaab deemteettaa?	A. Eeyyee B. Lakki	
609.	Hojjattun extenshinii fayyaa gara mana keessanii ji'oota jahan darbanii asii dhufanii beekuu?	A. Eeyyee B. lakki	
610.	Deebiin kee yoo eeyyee ta'e erga hojjatatuun exteenshii si gorsitee booda gara dhabbata fayyaa deemteettaa?	A. Eeyyee B. Lakki	

**Kutaa VII Oddeeffaannoo galmee dhukkubsataa irraa guutamuu qaban**

**Lakk cardii Guyyaa**

lakk	Ragaalee guutamuu qaban	
701	Sadarkaa dhukkuba onnee	A. I B. II C. III D. IV
702	Gosa qorichaa amma fudhachaa jiru (maqaan qorichaa ammadhukkubsataaf latamaa jiru haa guutamu)	_____ _____ _____
703	Dhukkubbonni/dhukkubni yeroo amma dhukkuba onnee faana dhukkubaa jiran/Jiru haa guutamu (tokko ol taa'uu ni danda'a)	A. Dhukkuba sukkuraa B. Dhibbaa dhiigaa C. Dhukkuba golga onnee kankeessaa D. Dhukkuba kale E. Dhukkuba tiruu

**Annex 6 Amharic version of the questionnaire**

**ጅም ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ የነርቲንግ እና የሚድዋይፍሪ ትምህርት ክፍል**

**ፋቃደኝነት መጠየቂያ ቅፅ**

**ለተሳታፊውን የሚሰጥ መረጃ**

መነሻ ሀሳብ :- ይህ ከዚህ በታች ያለው መረጃ የጥናቱን አላማ በመግለፅ የርሶን ፈቃደኝነት ለመጠየቅ ነው ።

ሰላምታ -----

እኔ ----- እባላለው ። በጅም ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ ውስጥ የሁለተኛ ዲግሪ ተማሪ በሆነው አቶ ጌታሁን ፈተንሳ የሚደረገው ጥናት ውስጥ የመረጃ መሰብሰብን ስራ እሰራለሁ ። በጀክም ዩኒቨርሲቲ ስፔሻላይዜድ ሆስፒታል አውሰጥ የልብ ድካም ታካሚዎችን የጤና ክትትል ባህሪን እና ተያያዥ ተፅእኖ ፈታሪ ጉዳዮች ላ ጥናት እያደረገ ይገናል ። ከዕርስ የሚገኘው መረጃ ምስጢረኛነት የተጠበቀ ነው ። የእርስ ስም እና ሌላ መግለጫዎች አይገለፁም ። የሰጡትን መረጃ የሚጠቅመው ጥናቱን የሚያካሂደው ግለሰብ ብቻ ነው ። የሰጡትም መረጃ በተቆለፈ ማህደር ውስጥ የሚቀመጠይ ይሆናል ። ምክንያቱም ሳይገለፁ በየትኛውም ሰአት መጠይቁን ማቋረጥ ይቻላል ። የእርሶን ትብር እና እገዛ እናብራራለን ።

**የጥናቱ አላም**

ይህ መጠይቅ የሚካሄደው መረጃን ለመስብሰብ ነው ። መረጃውንም ሚጠቀመው በጅም ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የነርቲንግ እና የሚድዋይፍሪ ትምህርት ክፍል ተማሪ በሆነው በአቶ ጌታሁን ፈተንሳ ነው።

ከጥናቱ ጋር የተያያዘ ማንኛውም ጥያቄ ካለ በስል ቁጥር 09 10 34 44 25 ላ አቶ ጌታሁን ፈተንሳ ብለው መደወል ይችላሉ ። በመጀመሪያ ደረጃ አመሰግባለው ለማለት ወዳለው ።

በጥናቱ ላ ለመሳተፍ ይስማማሉ ? 1) አዎ 2) አልስማማም

መልስ ሰጪው ፊርማ ----- ቀን -----



ክፍል አንድ :- እርሶን በተመለከተ የቀረበ ጥያቄ			
ክርድ ቁ		ቡድን	
ተ.ቁ	ጥያቄ	መልስ	መለያ
101	ዕድሜቸ	-----በአመት	
102	ፆታ	1. ወንድ 2. ሴት	
102	ሀይማኖት	1. እርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ ( ጥቀሱ )	
103	ብሔር	1. አሮሞ 2. አማራ 3. ጉራጌ 4. ትግሬ 5. ሌላ ( ጥቀሱ )	
104	የትምህርት ደረጃ	1. ያልተማረ /ች / ማንበብ እና መፃፍ የማይችል /ች / 2. መፃፍና ማንበብ የሚችል /የሚችትል 3. የመጀመሪያ ደረጃ ትምህርት 4. ሁለተኛ ደረጃ ትምህርት 5. ሌላ ( ጥቀስ ) -----	
105	የትምህርት ደረጃ	1. ያልተማረ / ያልተማረች 2. አንደኛ ደረጃ ( 1-8 ክፍል ) 3. ሁለተኛ ደረጃ ( 9- 12 ክፍል )	

		4. ኮሌጅ ( 12+ )	
106	የሥራ ሁኔታ	1. የመንግስት ሰራተኛ 2. ነጋዴ 3. የቤት እመቤት 4. አርብቶ አደር 5. ሌላ ( ጥቀስ )	
107	የጋብቻ ሁኔታ	1. ያላገባ / ያገባች 2. ያገባ / ያገባች 3. የተፋታ / የተፋታች 4. የተለያየ/ የተለያየች	
108	የመኖሪያ ቦታ	1. ከተማ 2. ገጠር	
109	የመኖሪያ ቦታው ከ ጤና ተቋም ያለው ርቀት	1. ከ1 ኪ.ሜ በታች 2. 3ኪ.ሜ 3. 5ኪ.ሜ 4. አላውቅም	
110	የገቢ መጠን	1. ከ500 ብር በታች 2. ከ500-1000 ብር 3. ከ1000ብር በላይ	
111	የቤተሰብ ባዛት	----- ( በቁጥር )	

ክፍል ሁለት :- ክልብ ድካም ጋር የተያያዙ የህክምና መንስኤዎችን ማያሳዩ ጥያቄ

201	ልብ ድካም በሽታ እንዳለበት ካወቁ ምን ያህል ጊዜ ሆኖታል ?	<ol style="list-style-type: none"> <li>1. አንድ ወር</li> <li>2. ሁለት ወራት</li> <li>3. አንድ አመት</li> <li>4. ከአንድ አመት በላይ</li> </ol>	
202	የበሽታውን መንስኤ ያውቃሉ ?	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላውቅም</li> </ol>	መልሱ አላውቅም ከሆነ ወደ ጥያቄ 206 እለፍ/ፊ
203	የበሽታው መንስኤ ምንድነው ?	<ol style="list-style-type: none"> <li>1. የደም ግፊት በሽታ</li> <li>2. የደም ቧንቧ መጥበብ</li> <li>3. ከልጅነት ዕድሜ የጀመረ የልብ በሽታ</li> <li>4. ሌላ ( ጥቀስ )-----</li> </ol>	
204	የበሽታውን ምልክቶች ያውቃሉ?	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላውቅም</li> </ol>	መልሱ አላውቅም ከሆነ ወደ ጥያቄ 206 እለፍ/ፊ
205	እንዚህ ምልክቶች ምንድናቸው ?	<ol style="list-style-type: none"> <li>1. ለእንቅስቃሴ ጊዜ የትንፋሽ ማጠር</li> <li>2. ዘለቄታ ያለው ሳል</li> <li>3. የክብደት መጨመር</li> <li>4. የቁርጭምጭሚትና የእግር ማበጥ</li> <li>5. በትንሽ እንቅስቃሴ መድከም</li> <li>6. ሁሉም</li> <li>7. ሌላ ( ጥቀስ ) -----</li> </ol>	
206	ከበሽታው ጋር በተያያዘ ማረግ የሚገቡ ጥንቃቄዎች ምንድናቸው ?	<ol style="list-style-type: none"> <li>1. በቂ ዕረፍት</li> <li>2. እንቅስቃሴ መመጠን</li> </ol>	

		<ol style="list-style-type: none"> <li>3. የጨው አመጋገብን መቀነስ</li> <li>4. በየቀኑ ከብደት መለካተ</li> <li>5. ተጨማሪ ትራ መጠቀም</li> <li>6. ሁሉም</li> <li>7. ሌላ ( ጥቀሱ ).....</li> </ol>	
207	በጤና ባለሙያው ማድረግ የሚገለጹት ጥንቃቄ ተነግሮት ነበር ?	<ol style="list-style-type: none"> <li>1. አዎ ተነግሮኛል</li> <li>2. አይ አልተናገረኝም</li> </ol>	መልሱ አላውቅም ከሆነ ወደ ጥያቄ 206 እለፍ/ፊ
208	ስለዚህ እነዚህ መደረግ የሚገባው ጥንቃቄዎች ምንድናቸው ?	<ol style="list-style-type: none"> <li>1. የራስን ከብደት የመመዘን ልምድ</li> <li>2. የምግብን የጨው መጠን መመጠን</li> <li>3. የአልኮልን መጠን መመጠን</li> <li>4. የሚጠጡትን የፈሳሽ መጠን መመጠን</li> <li>5. ሁሉም</li> <li>6. ሌላ ( ጥቀሱ )-----</li> </ol>	
209	በኒው ዮርክ እርት አስሼሽን ደረጃ መሰረት የታካሚው የልደት ድካም ህመም ደረጃ ?	<ol style="list-style-type: none"> <li>1. I</li> <li>2. II</li> <li>3. III</li> <li>4. IV</li> </ol>	
210	ታካሚው የሚጠቀመው የመድሀኒት አይነት ?	<ol style="list-style-type: none"> <li>1. ኤሲኢ ኢኒቢተር</li> <li>2. ቤታ- ብሎከር</li> <li>3. ዲዲታሊስ</li> <li>4. ዲያሮክስ</li> <li>5. ከልሺየም ቻናል ብሎከር</li> <li>6. ሌላ ( ጥቀሱ )----</li> </ol>	

211	በርሶ ላይ ሉ ሌላ የጤና ክክል ምንድነው?	<ol style="list-style-type: none"> <li>1. የስኳር በሽታ</li> <li>2. የደም ግፊት</li> <li>3. ከፍተኛ የወበ ችግር</li> <li>4. የኩላሊት ህመም</li> <li>5. የጉበት ህመም</li> <li>6. የልብ ሻልሽ ችግር</li> <li>7. ሌላ ( ጥቀስ ) .....</li> </ol>	
212	መድሀኒቱን በአግባቡ ይወስዳሉ ?	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላውቅም</li> </ol>	
213	መድሃኒቶን መውሰዱ ከጀመሩ ወዲህ ያት የመድሃኒት የጎንዮሽ ገኩዳት አዘለ ?	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላውቅም</li> </ol>	
214	መልስ አዎ ከሆነ መድሀኒቱን መውሰድ አቋርጠዋል ?	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላውቅም</li> </ol>	

**ክፍል ሶስት :- የጤና ክትትል ባህሪን የተመለከቱ ጥያቄዎች**

ጠቋሚ መረጃ ከዚህ በታች ያሉትን ጥያቄዎች የእርሶን የጤና ክትትል ባህሪን እና ልምድን ያሳያሉ ( ይኸውም የህመሙን ምልክት መለየት፣ የጤና ተቋምን መጎብኘት እና መድሃኒትን በአግባቡ መጠቀምን ):: ከእያንዳንዱ ጥያቄ ጎን ከሌሎች(1) እስከ ሁለት ( 4) ድረስ ያለውን የሚያሳዩ መልሶች አሉ ::

እባክዎን እያንዳንዱ ጥያቄ መመለሱን እርግጠኛ ይሁኑ እንዲሁም ለእያንዳንዱ ጥያቄ አንድ መልስ ብቻ መከበቡን ያረጋግጡ ::

ተ.ቁ	ጥያቄ	በፍፁም	አልፎ አልፎ	በአብዛኛው	ሁል ጊዜ
301	ለምን ያህል ጊዜ ህመሙ ለጀምሮ መሆኑን የሚያሳዩ ጠቋሚ የህመሙን ምልክቶች ማወቅ ችለዋል	1	2	3	4
302	የህመሙን ምልክቶች ቀድመው ማወቅ የቻሉ ይመስሉታል	1	2	3	4
303	ከህመሙ ጋር የተያያዙ የደረጃ መነጠን ለውጦችን ማወቅ የቻሉ ይመስሉታል	1	2	3	4
304	አጠቃላይ ህመሙ የከፋ ደረጃ ላይ መድረሱን ሚጠቁሙ ምልክቶችን በጥንቃቄ ተከታትለዋል	1	2	3	4
305	ለምን ያህል ጊዜ ከህመሙ ጋር የተያያዙ የህክምና ዘዴዎችና ምርጫዎች በሚገባ እንዲገነዘቡ ተደርገዋል	1	2	3	4
ባለፈው ህመም ወቅት ለህክምና ወደ ጠየና ተቋም ሄደው ከሆነ ከ.ተ.ቁ 306 – 309 ድረስ ያሉትን ጥያቄዎች ይመልሱ ::					
306	የህመሙ ምልክቶች እንደተሰማኖት በአፋጣኝ ወደ ጤና ተቋም ሄደው ህክምና ወስደዋል	1	2	3	4
307	ለህክምና ቀጠሮ ተስጥቶት ከነበረ በቀጠሮ መሰረት ወደ ጤና ተቋም ሄደዋል	1	2	3	4
308	ለህክምና ወደ ትክክለኛው የጤና ተቋም የሄዱ ይስሉታል	1	2	3	4
309	በጤና ተቋሙ ውስጥ ትክክለኛውን የጤና ባለሙያ ማግኘት የቻሉ ይመስሉታል	1	2	3	4
ታካሚው መድሃኒት የጤና ምክር ወይም ሌላ ህክምና ከጤና ተቋሙ አግኝቶ ከነበረ ከ.ተ.ቁ 310 -314 ያሉትን ጥያቄዎች ይመልሱ					
310	የታዘዘሎትን መድሃኒት የጤና ባለሙያው ባዘዘሎት መጠን	1	2	3	4

311	ስለጤናዎ ተጨማሪ መረጃዎችን ይመለከታሉ	1	2	3	4
312	መድሃኒቶን ወይም ሌላ የጤና መፍትሄዎች መጠቀም ረስተው ያውቃሉ	1	2	3	4
313	ጥሩ ስሜት በተሰማዎት ጊዜ መድሃኒቶን መጠቀም ወይም የተሰጠዎትን የጤና ምክ መጠቀም አቋርጠው ያውቃሉ	1	2	3	4
314	መጥፎ የጤና ስሜት በተሰማዎት ጊዜ መድሃኒቶን መጠቀም ወይም የተሰጠዎትን የጤና ምክር መጠቀም አቋርጠው ያውቃሉ	1	2	3	4

**የአውሮፓውያን የልብ ድካም ታካሚ ሪስክን የመንከባከብ ባህሪ መለኪያ**

ከዚህ በታች ያሉት ጥያቄዎች እርስዎ የተስማሙትን ስሜት ወይም የርሱን ባህሪ ያሳያሉ :: እባክዎትን ከዚህ በታች ባሉት ሪስክ

የመንከባከብ ባህሪዎች የጥቅም ደረጃን በተገለፁት የስምምነት መለኪያ መጠኞች መሰረት ይግለፁ ::

የአውሮፓውያን የልብ ድካም ታካሚ ሪስክን የመንከባከብ ባህሪ መለኪያ						
ተ.ቁ		ሙሉ ለሙሉ እስማማለው	እስማማለው	በመጠኑን ደረጃ እስማማለው	አልስማማም	በፍፁም አልስማማም
401	ከብደቴን በየቀኑ እለካለው	1	2	3	4	5
402	የትንፋሽ ማጠር ሲገጥመኝ እንደቀላል ክስተት ቆጥረዋለው	1	2	3	4	5
403	የትንፋሽ ማጠሩ ችግር ከተባባሰብኝ ወደ ጤና ተቋም እሄዳለው	1	2	3	4	5
404	እግሬ ከወትሮ ካበጠ ወደ ጤና ተቋም እሄዳለው	1	2	3	4	5
405	በአንድ ሳምንት ውስጥ ከብደት መጠኔ በሁለት ኪ.ግ ከጨመረ ወደ ጤና ተቋም ሄዳለው	1	2	3	4	5
406	ለቀን ውስጥ የምወሰደውን የፈሳሽ መጠን እመጥናለው ይኸውም በአንድ ቀን ውስጥ ከ1-15 ሊትር ባቻ	1	2	3	4	5
407	ከወትሮ የበለጠ የድካም ስሜት ከተሰማኝ ወደ ጤና ተቋም ሄዳለው	1	2	3	4	5
408	በቀን ውስጥ እረፍት ወስዳለው	1	2	3	4	5
409	የጨው መጠን አነስተኛ የሆነ ምግብ እመገባለው	1	2	3	4	5
410	መድሃኒቴን በታዘዘልኝ መሰረት ወስዳለው	1	2	3	4	5
411	በተደጋጋሚ የአካል ባቃት እንቅስቃሴ አደርጋለው	1	2	3	4	5

ውጤት አሰጣኝ ለመጀመሪያው ረድፍ መልስ ቁጥር 1 ነው ፣ ለሁለተኛው ረድፍ መልስ ቁጥር 2 ነው፣ ለሶስተኛው ረድፍ መልስ ቁጥር 3 ነው ፣ ለአራተኛው ረድፍ መልስ ቁጥር 4 ነው ፣ ለአምስተኛ ረድፍ መልስ ቁጥር 5 ነው፣ በዚህ መሰረት መልስ ቁጥር 1 እና 2 ዝቅተኛ ክትትል ሲወከሉ ቁጥር 3፣4 እና 5 ደግሞ ከፍተኛ የጤና የራስ መንከባከብን ይወክላሉ ::



**ክፍል አምስት : ክልብ ድካም ጋር ከየተያያዘ እውቀት መለኪያ**

ክልብ ድካም ጋር የተያያዘ እውቀት መለኪያ				
ተ.ቁ	ጥያቄ	አዎ	አይደለም	አላውቅም
501	ክብደት መለካት በሰውነት ውስጥ የጨመረውን የፈሳሽ መጠን ለማወቅ ይረዳል			
502	የህመሙ በሚባባስበት ወቅት በጀርባ መተኛት የትንፋሽ ማጠርን ያመጣል ፣ በዚህም ጊዜ በመቀመጥ ጥሩ ስሜት እንዲሰማ ማድረግ ይቻላል			
503	የልብ ድካም ማለት ልብ በሰውነት የሚያስፈልገውን ተገቢ የሆነ የደም መጠን መርጨት አለመቻል ነው ።			
504	የልብ ድካም ህመም ታካሚ በየትኛውም የህመም ደረጃ ላይ የአካል ብቃት እብቅስቃሴ ማድረግ የለበትም			
505	ሳንባ በፈሳሽ በሚሞላበት ከሚከሰቱ ምልክቶች መካከል አንዱ የትንፋሽ ማጠር ነው			
506	የሳል ህመም ክልብ ድካ የተያዘ ሰው ላይ የሚከሰት ችግር ነው			
507	የልብ ድካም ታካ የጤና ሁኔታን ሲሻሻል መድሀኒት መውሰድ የለበትም			
508	የሽንት መጠንን የሚቆምሩ መድሃኒቶች የሰውነታችን የፈሳሽ መጠን ይቀንሳሉ			

ክፍል ስድስት :- ከማህበራዊ እና ከባህሪ ጋር የተያያዙ ጥያቄዎች

ተ.ቁ	ጥያቄ	ምርጫ	ኢሊፍ
601	በአሁኑ ሰአት ቤት ውስጥ ከማን ጋርነው ሚኖሩት	1. ከቤተሰብ ጋር 2. ከዘመድ ጋር 3. ከጓደኞች ጋር 4. ብቻዬን	
602	የጤናሁን ሁኔታ የሚከታተለው ዶክተር /ነርስ ህመምን በተመለከተ ለመጠየቅ ነፃነት ተስምቶት ያውቃል	1. ያለምንም ጭንቀት እጠይቃለው 2. ለመጠየቅ ትንሽ ይሉንታ ይሰማኛል 3. የተወሰነ ይሉንታ ይሰማኛል 4. ሙሉ ለሙሉ ይሉኝታ ይይዘኛል 5. ምንም አይነት ጥያቄ መጠየቀው አልችልም	
603	ትምባሆ / ሲጋራ ያቸሳሉ	1. አዎ 2. አላጨሰም	መልስ (2) ተ.ቁ 606 አለፍ
604	መልሶ አዎ ከሆነ በሳምንት ውስጥ ምን ያህል ፓኮ ያቸሳሉ	1. 1 2. 2 3. 3 4. ከሶስት በላ	
605	አልኮላ ይጠጣሉ	1. አዎ 2. አልጠጣም	መልስ (2) ተ.ቁ 607 አለፍ
606	አልኮላ የሚጠጡ ከሆነ በሳምንት ውስጥ ምን ያህል ጊዜ ይጠጣሉ	1. በሳምንት አንድ ጊዜ 2. በሳምንት ሁለት ጊዜ 3. በሳምንት ከሶስት ጊዜ በላይ	
607	ሰለ ህመም ከጓደኛ ከቤተሰብ ጋር ወይም ከዘመድ ጋር ተወያይተው ያውቃሉ ::	1. አዎ 2. አይደለም	መልስ (2) ተ.ቁ 609 አለፍ
608	መልሶ አዎ ከሆነ ከውይይትዎ በኋላ ወደ ጤና ተቋም ሄደዋል ::	1. አዎ 2. አይደለም	
609	በሰራው ፊርማ ውስጥ የጤና ኤክስፕሎን ባለሙያ ወደ ቤቶ መጥታ ነበር	1. አዎ 2. አይደለም	
610	መልሶ አዎ ሆነ ከአርሲ ምክር በኋላ ወደ ጤና ተቋም ሄደዋል	1. አዎ            2.አይደለም	

ክፍል ሰበት ክርድ ምጥላ መራጃ

701	በኒው ዮርክ እርት አስሼሽን ደረጃ መሰረት የታካሚው የልደት ድካም ህመም ደረጃ ?	<ol style="list-style-type: none"> <li>1. I</li> <li>2. II</li> <li>3. III</li> <li>4. IV</li> </ol>
702	<p>ታካሚው የሚጠቀመው የመድሀኒት አይነት ?</p> <p>(write the exact name of drug or drugs)</p>	<p>_____</p>
703	ላይ ሉ ሌላ የጤና ክክል ችግሮች	<ol style="list-style-type: none"> <li>1. የስኳር በሽታ</li> <li>2. የደም ግፊት</li> <li>3. ክፍተኛ የወብ ችግር</li> <li>4. የኩላሊት ህመም</li> <li>5. የጉብት ህመም</li> <li>6. የልብ ሻልሽ ችግር</li> <li>7. ሌላ ( ጥቀስ ) ....</li> </ol>

ክርድ ቁ \_\_\_\_\_ ቀን \_\_\_\_\_