DSpace Institution

DSpace Repository **http://dspace.org**

Nursing Thesis and Dissertations

2021-07

Healthcare Utilization and Its Determinants Among Elderly Population in Bahir Dar City, Amhara Region, Northwest Ethiopia, 2021

Dawit Algaw

http://ir.bdu.edu.et/handle/123456789/13434

Downloaded from DSpace Repository, DSpace Institution's institutional repository

BAHIR DAR UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCES

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF ADULT HEALTH NURSING

HEALTHCARE UTILIZATION AND ITS DETERMINANTS AMONG ELDERLY POPULATION IN BAHIR DAR CITY, AMHARA REGION, NORTHWEST ETHIOPIA, 2021

INVESTIGATOR: DAWIT ALGAW (BSc Nurse)

PRINCIPAL ADVISOR: YESHANEH SIYUM (MSc, ASST. PROF)

CO-ADVISOR: Dr. WORKU ANIMAW (MSc, PhD, ASCOC. PROF)

A THESIS SUBMITTED TO THE DEPARTMENT OF ADULT HEALTH NURSING, SCHOOL OF HEALTH SCIENCES, COLLEGE OF MEDICINE AND HEALTH SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF SCIENCE IN ADULT HEALTH NURSING

JULY, 2021

BAHIR DAR, ETHIOPIA

BAHIR DAR UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCES

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF ADULT HEALTH NURSING

A THESIS SUBMITTED TO THE DEPARTMENT OF ADULT HEALTH NURSING, SCHOOL OF HEALTH SCIENCES, COLLEGE OF MEDICINE AND HEALTH SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF SCIENCE IN ADULT HEALTH NURSING

INVESTIGATOR	Mr. DAWIT ALGAW (BSc Nurse) PHONE +251940878636 EMAIL: dawit122127@gmail.com
ADVISORS	Mr. YESHANEH SIYUM (MSc, ASST. PROF) EMAIL: yeshanehs@gmail.com Dr. WORKU ANIMAW (MSc, PhD, ASCOC. PROF) EMAIL: workimaw@gmail.com
TITLE	HEALTHCARE UTILIZATION AND ITS DETERMINANTS AMONG ELDERLY POPULATION IN BAHIR DAR CITY, AMHARA REGION, NORTHWEST ETHIOPIA
PROJECT AREA AND PERIOD	BAHIR DAR CITY, AMHARA REGION, NORTHWEST ETHIOPIA FROM MARCH 18 – APRIL 10, 2021

©2021 Dawit Algaw

ACKNOWLEDGEMENTS

First of all, I would like to acknowledge Bahir Dar University College of Medicine and Health Sciences Department of Adult Health Nursing for arranging this opportunity to carry out this research thesis.

Secondly, my sincere gratitude go to my advisors Mr. Yeshaneh Siyum and Dr. Worku Animaw for their timely constructive supports and comments which have been very helpful in improving and guiding the whole research thesis process.

Third, I would like to thank my friends and families for their support and motivation to develop this research thesis.

Finally, my sincere gratitude go to the study participants for their willingness to give their full responses by giving strong value to this study.

CONTENTS

ACKNOWLEDGEMENTS I
CONTENTS II
LIST OF TABLES IV
LIST OF ACRONYMS AND ABBREVIATIONS VI
1. INTRODUCTION 1
1.1. BACKGROUND 1
1.2. STATEMENT OF THE PROBLEM 3
1.3. SIGNIFICANCE OF THE STUDY 5
2. LITERATURE REVIEW 6
2.1. DETERMINANTS OF HEALTHCARE UTILIZATION 7
2.1.1. ENABLING FACTORS 7
2.1.2. NEED FACTORS 8
2.1.3. PREDISPOSING FACTORS 10
2.4. CONCEPTUAL FRAMEWORK 13
..... 13
3. OBJECTIVES 14
3.1. GENERAL OBJECTIVE 14
3.2. SPECIFIC OBJECTIVES 14
4. STUDY METHODS AND MATERIALS 15
4.1. STUDY AREA AND PERIOD 15
4.2. STUDY DESIGN 15
4.3. POPULATION 15
4.3.1. SOURCE POPULATION 15
4.3.2. STUDY POPULATION 15
4.4. INCLUSION AND EXCLUSION CRITERIA 15
4.4.1. INCLUSION CRITERIA 15
4.5. SAMPLE SIZE DETERMINATION 16
4.6. SAMPLING PROCEDURES 17
4.7. STUDY VARIABLES 18
4.7.1. DEPENDENT VARIABLE: 18

4.7.2. INDEPENDENT VARIABLE 18
4.8. OPERATIONAL DEFINITIONS 18
4.9. DATA COLLECTION TOOL 18
4.10. DATA COLLECTION TECHNIQUE 19
4.11. PRETEST 19
4.12. DATA ANALYSIS PROCEDURE 19
4.13. ETHICAL CONSIDERATION 19
4.14. DISSEMINATION PLAN 20
5. RESULT 21
6. DISCUSSION 29
7. STRENGTH OF THE STUDY 31
8. LIMITATION OF THE STUDY 31
9. CONCLUSION AND RECOMMENDATIONS 31
REFERENCES 32
ANNEX 1: QUESTIONNAIRE IN ENGLISH VERSION FOR ELDERLY POPULATION ... 39
ANNEX2: AMHARIC VERSION QUESTIONNAIRE FORM 44

LIST OF TABLES

Table1: determinants of healthcare utilization for the second objective sample size determination……....16

Table2: Socio-demographic characteristics of elderly population, in Bahir dar city, Amhara region, North-west, Ethiopia, 2021……..…..…21

Table3: Enabling factors of elderly population in Bahir dar city, Amhara region, North-west, Ethiopia, 2021……...….22

Table4: Distribution of the indicators for the need of health services in the last 1 year among the elderly in Bahir dar city, north-west, Ethiopia, 2021……..……24

Table5: Utilization of Healthcare Service in the past one year Bahir dar city, north-west Ethiopia, 2021.....24

Table6: healthcare service utilization and factors associated with it in the last 1 year among the elderly in Bahir dar city, Amhara Region, North-west, Ethiopia, 2021…….……...28

LIST OF FIGURES

Figure 1: Conceptual framework showing possible determinants of health service utilization....13
Figure2: Schematic presentation of sampling procedures for determinants of healthcare utilization among the elderly population in Bahir Dar city, Ethiopia 2021.....17
Figure3: Reasons for not utilized healthcare service in Bahir dar city, Amhara region, Northwest, Ethiopia, 2021……..…26

LIST OF ACRONYMS AND ABBREVIATIONS

AOR-----Adjusted Odds Ratio

CI ------Confidence Interval

COR------Crude Odds Ratio

DC-------Data Collector

Epinfo-----Epidemiological information (software)

LMIC-----Low and Middle Income Countries

MOH------Ministry of Health

SPSS-------Statistical Packages for Social Sciences (Software)

SSA -------Sub Saharan Africa

UN ---------United Nations

USA--------United States of America

WHO- ----World Health Organization

ABSTRACT

Background: The use of health services by the elderly could vary according to the cultural, social, economic, and demographic situation of the person who may need the care. However, documented studies on health service utilization among the elderly population are generally scarce in Ethiopia and particularly, in the study area.

Objective: This study was aimed to identify healthcare utilization and its determinants among the elderly population in Bahir Dar City, Amhara Region, Northwest Ethiopia, 2021.

Methods: A community-based cross-sectional study was carried among elderly people aged 60 years and above residing in Bahir Dar city from Match 18-2April 10, 2021. The data was collected by using a structured questionnaire adopted from previous studies. Data were entered into EpiData version 4.0 and analyzed using SPSS version 25 Logistic regression analysis was carried out and all variables with a p-value less than 0.25 in the bivariate analysis were candidates for multivariable logistic regression analysis

Results: Among a total of 634 study subjects planned, 625(98.6%) give their complete responses. The overall healthcare services utilization is about 64.8%. For follow-up 39.2%, getting treatment for illness 33.4% and general checkup 15.4% are the major reasons for the visit to the healthcare facility. In multivariable logistic regression model, unable to read and write [AOR =0.097; CI: 0.043-0.219], identified history of medical illness [AOR=6.634; CI: 4.159-10.582], community health insurance [AOR=14.570; CI: 7.359-27.846], monthly income less than 750 birrs [AOR= 0.166, CI: 0.047-0.582] and unable to pay for medical services [AOD= 4.358, CI: 2.545-7.462] are identified as determinants of healthcare utilization.

Conclusions and Recommendations: The overall healthcare services utilization is nearly about two third that is found to be low. Health insurance, monthly income, unable to read and write, chronic diseases and unable to pay for medical service are identifiable determinants of healthcare utilization. the findings recommended that policymakers and health service providers shall identify and understand the situation of the elderly population and consequently create a conducive environment to provide appropriate healthcare services for elders.

KEYWORDS: Healthcare, Utilization, Determinants, Elderly population, Bahir Dar City

1. INTRODUCTION

1.1. BACKGROUND

Healthcare utilization is defined as the process of selecting to use any health service resources i.e. governmental and private hospitals, clinics, health centers, and purchase medicines at drug stores (1). Aging is the normal process of time-related change, begins with birth and continues throughout life (2). Based on the cut-off age adopted by the United Nations (UN), old age is defined as those who are 60 years old and above (3).

Globally, the number of older people is growing faster than the number of people in any other age group (4). Due to declines in fertility rates and increases in life expectancy, the number of older persons in the world is speedily increased (5). Currently, there are about 900 million people aged 60 and above worldwide, representing approximately 12.5 percent of the global population (6). It is projected to be 1.4 billion in 2030, 2.1 billion in 2050 and 3.1 billion in 2100. Recently, the percentage of older adults in developing countries has also increased significantly (7). About 75% of this elderly population will be living in developing nations, which already have an overburdened healthcare delivery system (8).

According to demographic projections, the number of adults aged 60-plus years in sub-Saharan Africa will increase from 46 million (4.8% of the total population) in 2015 to 161 million by 2050 (7.5% of the total population) (9). These demographic transitions essentially require shifting the global attention towards the preventive healthcare utilization and medical needs of the elderly population (10). In Ethiopia, the elderly population (> 60 years) represents 3565161 of the total population (11) and in the Amhara region, Bahir Dar city also accounts for 12095 (12).

Health care utilization among older adults in both low and middle-income (LMICs), and high-income countries is variously influenced by demographic, economic, and health status factors. Older women used primary healthcare and community health services more than older men (13), and older men used inpatient health services more often than older women (14).

An older population inclines to have a higher prevalence of chronic diseases (15), physical incapacities (16), memory impairments, and other co-morbidities (17). Also besides, there are wide amounts of determinants that hinder healthcare utilization such as; social concerns (children moving out of their parent's home in search of occupation), leaving them isolated without any physical support in daily activities, maltreatment towards elderly, poor knowledge and awareness about the risk factors, nutritional and financial restrictions (18), and poor health service delivery system, living alone, worse self-perceived health, and depressive symptoms, as well as the unavailable, inaccessible and unaffordable health care services (19).

In order to analyze the determinants of healthcare utilization, Andersen developed a theoretical behavioral model in 1960 and differentiated three types of determinants that influence health care use i.e. predisposing, enabling, and need factors. Predisposing factors are individual characteristics that exist before the illness (for example, socio-demographic profile, attitudes about services). Enabling factors comprised, income, regular source of care, travel and waiting times, and social relationships (20).

Need-related factors are chronic diseases, perceived health status and the perception of the need for healthcare services, availability of health personnel and facilities and whether individual, social, or clinically evaluated perceptions of need & also functional status is assessed based on the number of functional impairments in areas of activities of daily living (21). Therefore, this research assessed the determinants that affect the healthcare utilization of elderly populations in Bahir Dar city, Amhara region, Ethiopia.

1.2. STATEMENT OF THE PROBLEM

The study of healthcare utilization among elderly people hasn't been overemphasized by many countries including Ethiopia. According to the health and the economy of human misery and well-being article, the stability of a country's health care system reinforces the state of its economy. This stands to reason that, the healthier population is the better position to engage in economic activities that strengthen the aggregate economic benefits of the country (22), (23). This aggregate health is positively related to the state of the economy (24). No wonder, governments invest a lot to accomplish a strong health care system thereby sustaining accessibility and utilization of health care by the elderly population (25).

Worldwide, older people experienced a high level of morbidity, decreasing physical function and from various aspects, the demand of healthcare utilization for older people is far higher than other age groups (26). The delivery of healthcare services for older people is different across countries, continents, and cultural societies (27).

In developed countries, healthcare is relatively provided by well-equipped health institutions and nursing home cares that is arranged for elderly individuals (28). Nevertheless, in developing countries, including Ethiopia, health care utilization among the elderly is given with poorly furnished health facilities and poor nursing care (29). Several studies in different parts of the world discovered that low healthcare utilization is one of the major causes of elderly death and morbidity in developing countries like Ethiopia (30). In the United States, the health facility visit of elder people is reported as; about 50% of respondents went to the hospital, 80% home care services, and 90% of nursing home beds are occupied by elders (31).

In Sub-Sahara African (SSA) countries, the elderly population are also experiencing a rapid demographic change, with more people reaching old age (32); however, in these countries including Ethiopia, the modern healthcare facilities are not the first point of contact for an elderly person rather they preferred visiting traditional healers and spiritual medicines. Not only this but also, in most Sub-saharan African countries, older adults have little information about healthcare delivery system and utilization of health care services among the elderly is poorly reported (33) and in fact, it is still the major problem in Ethiopia.

The Federal Government of Ethiopia has formulated a series of Health sector Development programs (34). This healthcare system is decentralized and free health service is being delivered (35) for those who cannot afford it by community health insurance (34). Even though, Ethiopia is trying to register impressive successes in extending affordable primary health care services across the country (36), the healthcare utilization of elderly people is not emphasized by administrative bodies. Rather, Most healthcare utilization-related studies in Ethiopia were mainly conducted on maternal healthcare utilization (37),(38),(39). Therefore, this study is thrust to broaden the level of analysis on the determinants of healthcare utilization among the elderly population. The study was conducted in western Ethiopia, 2016, among elders; only 49.6% of people utilized modern health care services (40).

In most localities of East African countries, including Ethiopia, the healthcare utilization remained problematic and this is triggered the need to study this issue in such localities. Although few studies have been conducted in Ethiopia, they are limited only on the urban segment of populations with a small sample size to evaluate the factor affecting the utilization of healthcare services among older adults. Particularly none of the studies, so far, have been conducted in Amhara Region, Bahir Bar city, on determinants of healthcare utilization related to older adults.

1.3. SIGNIFICANCE OF THE STUDY

It is believed that the outcome of the study is helpful for understanding and describing the main factors that contribute to healthcare utilization among elderly people in the study area. In addition, it will be used to improve the quality of life for the community and study participants. Hence, knowing the determinants of health care service utilization among elders will use as an input for policymakers to prepare strategic plans to alleviate the barrier of healthcare utilization among elderly people. Also, the result of this study will help the health care providers, governments and NGOs in understanding the potential determinants clearly and to plan a new strategy to come up with a solution and implementation of different elderly healthcare-related services.

The study may also be used for regional health administrators to promote the utilization of healthcare services and mitigate the factors that hinder the community to use the health care service in the study area. It also will be used for the establishment of rehabilitation centers and nursing home cares for elderly people in Bahir dar city. Finally, the information from this study will also serve as baseline data (reference) for the educators and further researchers in this area.

2. LITERATURE REVIEW

Healthcare utilization is an important public health issue in developing countries; however, the use of healthcare utilization is not satisfactory in many countries (41). A study conducted in India 2013, among 200 elderly reported that only 58.5% of the study population preferred visiting health institutions, 48.5% of the study population had positive belief in traditional healers, 8.5% preferred home remedies and 12.0% preferred other measures first for seeking healthcare (42). Similarly, the study conducted in Iran, 2015, among elderly individuals showed that 46.8% of participants realized visiting modern health facilities(43).

Another study conducted in Nigeria, 2015, among the elderly, 41% of respondents have visited the hospital/health center just once in a year (44). Similarly, a cross-sectional study conducted in China, 2018, among the elderly showed that about 81.8% of the elderly population utilized healthcare services (45) and, another study conducted in Germany, 2017 about 90% of elderly participants reported as they had healthcare service utilization(46)

Another community-based cross-sectional study conducted in Indonesia, 2011, among elders reported as; in terms of healthcare utilization, 5.3% of participants had been hospitalized in the past one year. 22.7% of respondents had visited health workers or doctors within the previous 4 weeks; the visit of healthcare facilities by the participants was very low (47). A study conducted in Singapore, 2018, among elders, indicated that; 84% of the respondents had visited an outpatient clinic in the previous 12 months (48). A cross-sectional study carried out in Democratic Republic of Congo among elders revealed that more than half of the elderly people (55.6%) preferred traditional spiritual healers once they were ill. The health facilities used by elderly persons were only about 3.3%. About 96% of the elderly population did not visit modern healthcare facilities instead they preferred non-modern healthcare services (26).

The other elderly population-based survey conducted in Nigeria, 2018, among the elderly population; it was observed that (53.9%) used traditional medicine alone, 31.2% used both traditional and modern medicines while only 14.9% went to orthodox medicine when they were sick (49). A Similar cross-sectional study conducted In Ghana, 2016, on Predictors of healthcare utilization among older adults; of 2517 respondents who sought and accessed outpatient care in the 12 months preceding the survey, 1315 (51.7%) of respondents used a public facility, 402

(17.8%) used a private facility and 800 (30.5%) used traditional types. More than half of the study respondents were used modern heath (50). In 2015, a community-based cross-sectional study done in Holeta Town, Ethiopia on elderly populations revealed that; nearly half (47.5%) of respondents reported they usually went to the public health center for medical intervention, 1.5% to the health post, 13.6% to the private clinic while 16.0% never went to the health facility and 2.0% went to traditional healers (51).

Another cross-sectional study conducted on elders, in 2019, Jimma zone, southwest of Ethiopia, showed that out of those who had been ill in the previous 12 months, 53.7% visited modern health institutions in the last episode of illness. Empirical evidence indicates that most nations will face population aging to some degree over the next decades and planning for this aging can mitigate some of the negative effects and enhance the positive consequences (52).

2.1. DETERMINANTS OF HEALTHCARE UTILIZATION

2.1.1. ENABLING FACTORS

Enabling factors refer to resources or means that enable or impede individuals to access health services. Examples of enabling factors include income level, the distance of health institutions, availability, accessibility, and affordability of services (21). A study conducted in China, 2016, based on the nationally representative of older people; lack of money is the main reported reason for a significant proportion of older people for not using inpatient care even if required by a doctor. Self-medication is an option for primary health care when medical costs are high or access to health care services is limited(45).

A study conducted in Dakota state, among the elders, revealed that; traveling to the government hospitals from urban areas is difficult for them as they need to pay for transportation costs or they might lack the needed vehicles. Generally, these studies revealed that; distance from health facilities was the main determinant that influenced the use of healthcare services (53),(54). A cross-sectional study was done in Bangladesh, 2016, among aging participants reported that; inadequate access to appropriate health services and increased distance between residents and health care providers decreased utilization of health care services that remains an important determinant of, health care utilization (55).

A community-based cross-sectional study was done in 2011, Kogi State, Nigeria, among elders showed that; only 18% of the rural households lived close to 0-4km from a public health center and 42.1% lived within 15-19km. This is expected to reduce their cost of transportation and consistency of accessibility to distant modern health care services. On the other, factors that decreased health institution visits were the shortage of money and visiting a drug vendor in 27.2% and 21.7% respectively (56).

In 2016, the study conducted in Bedele Town, Ethiopia among older adults, showed that; around 75% who have had enough money utilized healthcare services while 47.3% of those who do not have enough money didn't utilize healthcare services. Having occupation (26.4%) utilized healthcare service. About 40.6% utilized health services since caregivers and facilities were available. Among respondents; 12.7% utilized healthcare services who traveled 10 km and above and 37.5% utilized health services those who traveled less than 10 km (40).

Another cross-sectional study conducted in, Jimma zone, Ethiopia, 2019, among a total of 422 study subjects; 49.6% of the respondents lived in a rented house, 85.6% didn't have enough money to meet their needs, and about (46%) never had an occupation. Regarding their living arrangements about one-third of them lived alone. Two-third of the respondents were unable to pay for medical service, 59% of them reached health facilities within 30 minutes and only one-sixth of them had a monthly income of ≥ 750 Ethiopian birrs (52).

in 2019, a community-based cross-sectional study was conducted in Ambo Town, Oromia, Ethiopia, among 284 older adults; who reported having enough money to meet their needs 58.7% utilized health services compared to participants who did not have enough money to meet their need. Health care utilization was higher among participants who travel less than 10km compared to participants who travel more than 10 km (57).

2.1.2. NEED FACTORS

The need factors are the most immediate predictor of health service utilization. Perceived health status chronic illness and evaluated health statuses are included in this factor and these factors are the most important in determining whether an individual seeks help (21).

In north Iran, a study conducted on elders revealed that; among 26% of respondents who reported having a medical problem, 24.2% of respondents visited a medical center. The most

reasons for visiting the health care centers were musculoskeletal pain (24.4%), hypertension (20.8%), common cold (8.3%) and chest pain (6.6) respectively. So study showed that; having any medical problem was significantly associated with healthcare service utilization (58). Similarly, in 2011, in Nepal, a cross-sectional study conducted among the elderly population showed that; respondents with chronic diseases accounted for 83.5% of those utilizing health services and hypertension (45.3%) was found to be the leading reason for visiting the health institutions (59). Similarly, a cross-sectional study was done in Bangladesh, in 2016, among elders, around 44% of respondents reported that they had at least one chronic disease. Furthermore, 40.6% of respondents reported that their health was good but only 3.3% said very good (55).

Another study among elders in Singapore, 2012, reported as; the presence of any chronic diseases was a predictor for outpatient utilization; patients with chronic disease had higher odds for outpatient utilization when compared to those with no chronic disease. In the same token, for respondents with chronic diseases, the rate of utilizing polyclinics was increased progressively with age (48). In 2015, another community-based cross-sectional study done in rural Kogi State, Nigeria, among elders showed that; 47% of participants had chronic diseases and this condition was determinants of health institution visits (60).

The study conducted in Calabar Municipality, Nigeria, 2015, among the elderly showed that; Factors that would influence visiting of healthcare services among respondents who were satisfied with their visit include; effectiveness of treatment (28.1%), availability of essential drugs (20.2%), and access of medical equipment (15.7%). These indicators were pivotal to the effective delivery of quality healthcare services to the aged population. (44).

The study conducted in Ghana, among the elderly showed that; their self-rating health status as good and moderate were 42.5% and 43.3% respectively, whereas those rating their health status as poor amounted to 14.2%. Who reported their health status as moderate were 17% more likely to utilize health care compared to participants who were in good health status, However, participants who were in poor health status were significantly 2 times more likely to utilize health care than those who were in good health status (61)

In Uganda, 2015 among older persons reported as; disability was more pronounced with

sight (46%) followed by walking (36%), hearing (20%), and memory (19%). Few sick older persons had some difficulty with self-care (9%) and communication (6%). Overall, four in ten (42%) sick older persons had some difficulty in at least one of the functional domains. These caused as the major factors which affected the visit to healthcare facilities (62).

A study conducted in Bedele town, Ethiopia, in 2016, among elders, the participants reported their health status as good, moderate, and poor, 3.5%, 14.9%, and 48.9% respectively. Those participants, whose health status was poor, used healthcare services frequently than those who reported moderate and good health status. Of those who reported a medical history of at least one chronic condition, 63% utilized healthcare services compared to 1.8% of those who had no medical history of any chronic condition but utilized health care anyway. Of those respondents who have had cognitive impairment around 27% utilized health services (40).

Another study conducted in Jimma zone, southwest of Ethiopia, 2019 Among a total of 422 study subjects Nearly two thirds (65.2%) of the respondents had moderate physical and mental illness, just over one-fourth (26.9%) reported difficulty with picking up things in the last 30 days 27.6% had difficulty of seeing and recognizing an object at a distance of about 20 meters, about one fourth (23.3%), had a history of cognitive impairment in the last 30 days and 62.1% feels pain sometimes. Burden of illness and, Physical and/or mental health status in the past 30 days are the main determinants of health service utilization among the elderly in Jimma town (52) (52).

In 2019, a study conducted in Ambo Town, West Shoa Zone, Ethiopia Among 284 older Adults, The proportion of reported health service utilization was 29.6% among those who performed ADL independently while 19.7% and 0.4% for those who perform ADL dependent for one activity and dependent for greater than one activity respectively. Of those respondents who have had cognitive impairment around 27% utilized health service only while the rest 42.2% not utilized health service. Those who had cognitive impairments and utilized health services were three times higher than those who didn't cognitive impairments (57).

2.1.3. PREDISPOSING FACTORS

The predisposing factors include socio-demographic characteristics (age, gender, marital status), social structural characteristics (education, employment status). These predisposing

factors are thought to influence a person's propensity to use services (21). A study was done in Yamoransa, Ghana, 2014, on the elderly population, revealed that; the results of the predisposing factors for health service utilization were varied by sex of respondents that means males (93%) utilized more than females (91%), this confirmed that males were more likely to utilize healthcare services than females. Marital status had its impact on utilization of healthcare services, in which those individuals who had married (96%) using healthcare services more than those widowed (93%) and divorced (86%).

This means being married, widowed, or divorced largely influenced variations in the use of healthcare services among the elderly. Education had its impact on health service utilization, in which those individuals who had attained Tertiary education (100%), Senior High School Education (60%) and primary education (56%). Of the participants in the age groups 60-64, 65-69, 70-74, 75-79 and 80+ years, utilized health services (91%), (94%), (90%), (100%), and (87%) respectively. Participants who utilized health services between the age group 75-79 and 65-69 years show a greater proportion than the rest age group (63). Another cross-sectional study conducted in Malaysia among the elderly showed that age and marital status were the major determinants of healthcare utilization(64).

A cross-sectional study conducted in Nigeria, 2014, among the elderly population; factors that decreased health institution visits; from this research show that 54.7% of participants with no formal education patronize traditional medicine, 13.1% patronize orthodox medicine, while 32.2% went to both orthodox and traditional medicine. Similarly, 52.8% of educated older adults patronize traditional medicine, 17.4% patronize orthodox medicine while 29.8% patronize both orthodox and traditional medicine (65).

A community-based cross-sectional study conducted in 2016, Bedele Town, Ethiopia, the results of the predisposing factors for health service utilization were varied by sex of respondents that means female 52.6% utilized more than male 45.1%. Of the participants in the age groups 60-64, 65-69, 70-74, 75-79 and 80+ years, utilized health services 53.1%, 58.2%, 55.2%, 33.1% and 35.1% respectively. Participants who utilized health services between the age group 65-69 and 70-74 years show a greater proportion than the rest age group. Education had its impact on health service utilization, in which those individuals who had educated utilized health service 55.4% while 43.3% non-educated respondents utilized health service (40).

In 2019, a study was conducted in Ambo Town, West Shoa Zone, Ethiopia Among 284 older Adults, health service utilization differed significantly by sex of Study participants that means female participants utilized 52.6% while male participants utilized health service 45.1%. The study shows females' health service utilization more than male participants. Older adults who are not married currently are found to utilized health services more than those married. respondents with a history of education 26% more than those respondents with no history of education. Similarly, respondents who had occupation were found to utilize health service 28.9% more than those respondents who had no occupation. (57).

2.4. CONCEPTUAL FRAMEWORK

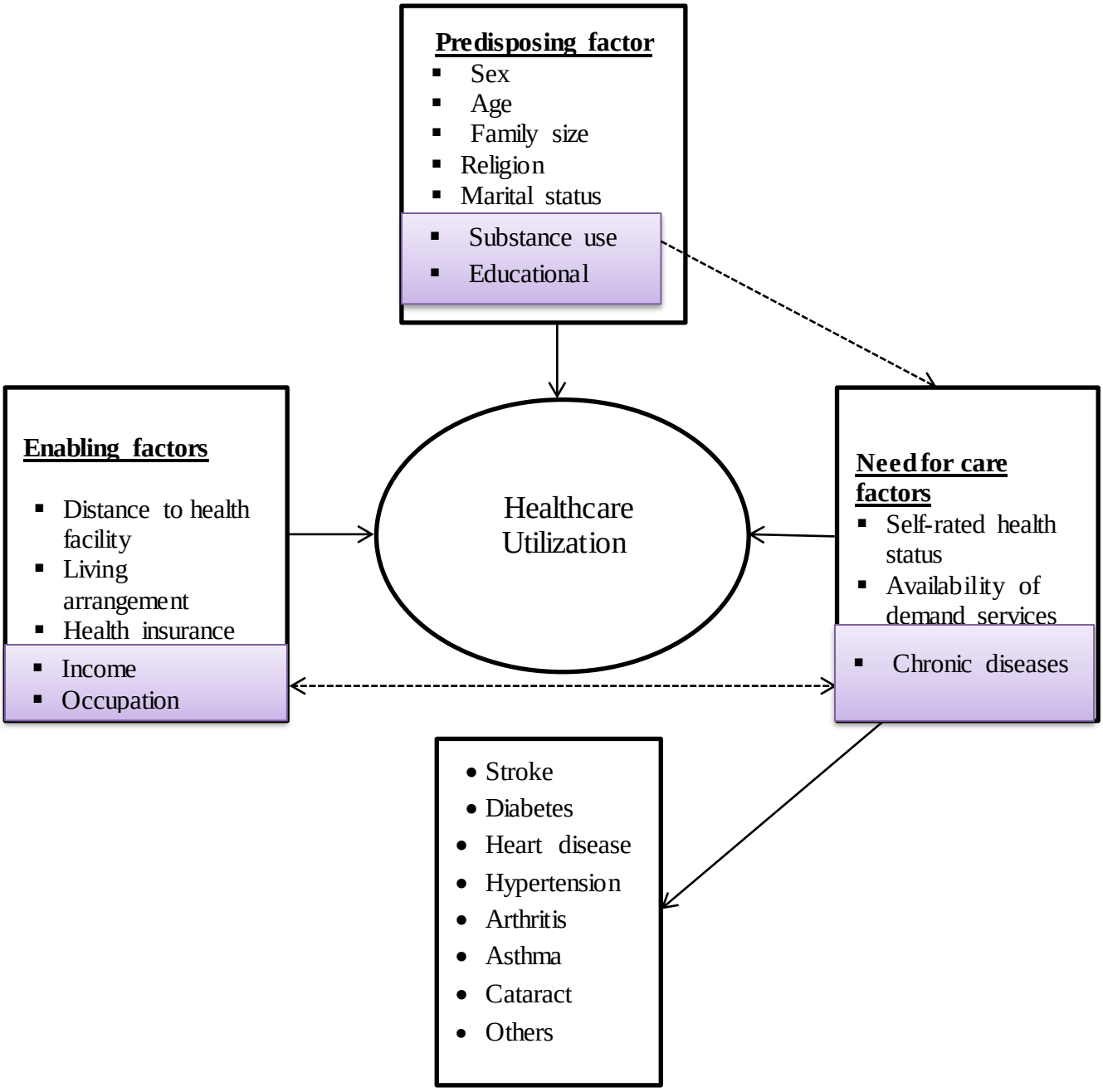

Figure1: Conceptual framework showing possible determinants of healthcare utilization (21)

3. OBJECTIVES

3.1. GENERAL OBJECTIVE

To identify healthcare utilization and its determinants among elderly populations in Bahir Dar city, Amhara Region, North West Ethiopia, 2021

3.2. SPECIFIC OBJECTIVES

1. To determine the magnitude of healthcare utilization among the elderly population

2. To identify determinants of healthcare utilization among the elderly population

4. STUDY METHODS AND MATERIALS

4.1. STUDY AREA AND PERIOD

A Community-based cross-sectional study was conducted on randomly selected elderly population living in Bahir Dar city from Match 18 – April 10, 2021.

Bahir Dar is the capital city of the Amhara regional government state which is located 565 km north-west from the capital city of Ethiopia, Ad-dis Ababa and an elevation of 1840m above sea level. The city has six sub-cities with 14 rural kebeles and 26 urban kebeles, a total of 40 kebeles. According to Bahir Dar administration office source of data (12), the total population of Bahir Dar City is 373,073. Of this population 176,460 are males, 196,612 are females and the elderly population (age of 60 years and above) is 12095. The city has three governmental and four private hospitals, 10 health centers and 22 private clinics (3 higher private clinics, 7 special private clinics, and 12 private medium clinics (12).

4.2. STUDY DESIGN

Community based cross-sectional quantitative study method was employed.

4.3. POPULATION

4.3.1. SOURCE POPULATION

All elderly adults residing in Bahir Dar city

4.3.2. STUDY POPULATION

All selected elderly population who full filled the inclusion criteria and available during the data collection period

4.4. INCLUSION AND EXCLUSION CRITERIA

4.4.1. INCLUSION CRITERIA

All elderly population aged 60 years and above who have been inhabitants of Bahir dar city for ≥6 month was included in the study from March 18 - April 10, 2021.

4.4.2. EXCLUSION CRITERIA

Those elders unable to give response due critical illness were excluded from the study.

4.5. SAMPLE SIZE DETERMINATION

For the first objective the sample size is calculated by using single proportion formula using α/2 = 1.96, the margin of error = 0.05, non-response rate = 10% and the prevalence of health service utilization (p) from the previous study is 49.6% (66).

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

$$n = \frac{(1.96)^2 0.496 (1 - 0.496)}{0.05^2} = 384$$

Since two-stage sampling technique was employed the sample size becomes 576 with design effect of 1.5.

$$n2 = n1 * 1.5 = 384 * 1.5 = 576$$

n= 576 + 10% Non-response rate = **634**

For the second objective sample size determination Stat Calc module of Epi Info software version 7 was used by applying a cross-sectional technique to compute the sample size with an assumption of 95% level of confidence, 80% power, 1:1 ratio of exposed to non-exposed. Then the maximum label of sample size is taken.

table1 1: determinants of healthcare utilization for the second objective sample size determination

Factors	Non expo (p1)	Expo (p2)	AOR	Sample size	Nonresponse (10%)	Total sample size	References
Educational status	41.8	58.2	1.260	290	29	319	(57)
Income status	47.3	75	1.587	96	10	106	(40)
Sex	36.2	63.8	1.621	102	11	113	

From the above table the largest sample size is 290 then n= 290 + 10% non-response rate= 319 sample which is less than the sample size calculated for the first objective. So, the final sample size will be 634 study participants.

4.6. SAMPLING PROCEDURES

The study was employed a stratified sampling scheme using, simple random sampling techniques. First, the study area was stratified into urban and rural kebeles and then a total of 12 kebeles was randomly selected 8 from urban and 4 from the rural kebeles. Based on information was obtained from Bahir Dar city administrative office total numbers of the elderly population in the respective kebeles (lowest administrative unit) were identified and proportionally allocated to sample size. The sampling frame was developed by using records from kebele administration and health extension services. Finally, simple random sampling was employed to select the study subjects. One elderly from each household was selected as a study participant. When there was more than one elderly in one household, only one candidate was included by lottery method.

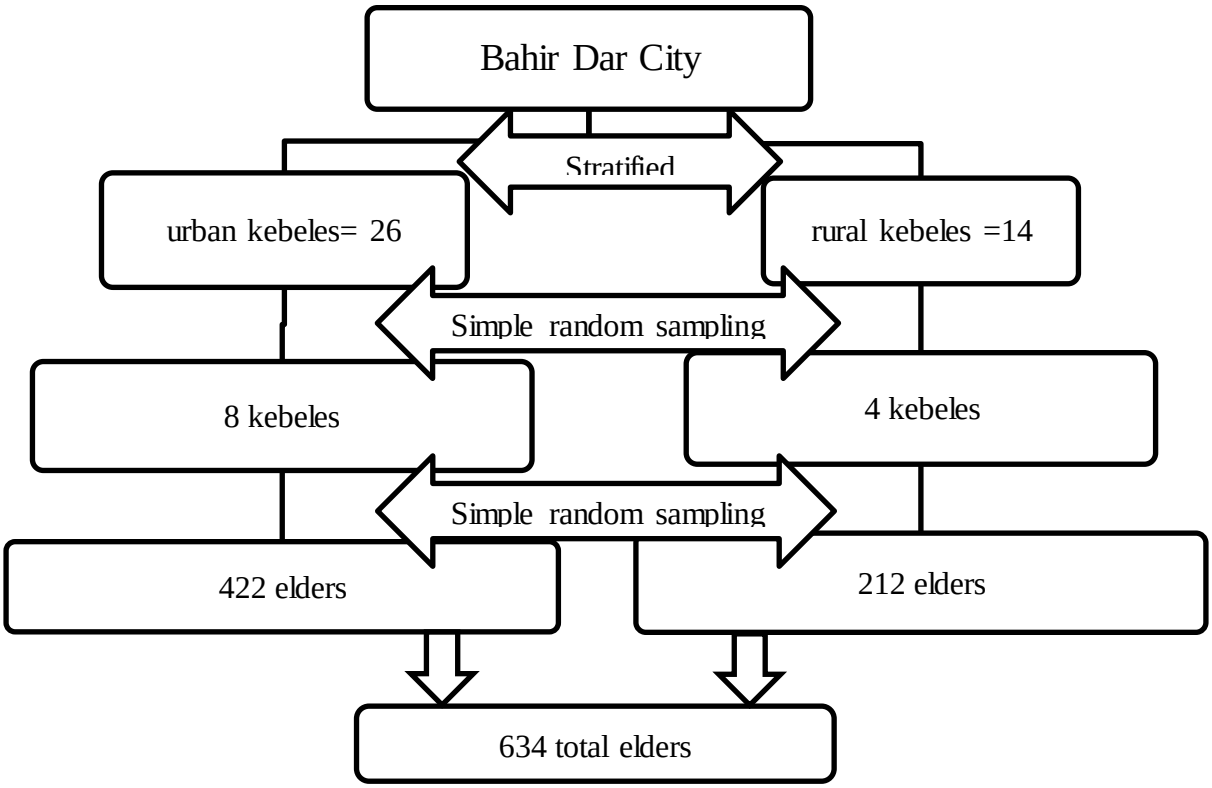

Figure 2: Schematic presentation of sampling procedures for determinants of healthcare utilization among the elderly population in Bahir Dar city, 2021.

4.7. STUDY VARIABLES

4.7.1. DEPENDENT VARIABLE:

- Healthcare utilization

4.7.2. INDEPENDENT VARIABLE

- Predisposing characteristics
- Enabling factors
- Need factors

4.8. OPERATIONAL DEFINITIONS

Healthcare utilization: refers to the visit of an elderly person to the public, private or NGO hospital, health center, clinic, or health post for seeking preventive, curative, or rehabilitative service at least once a year (67).

Predisposing factors: factors that include socio-demographic characteristics that exist and hinder clients from using health service(21)

Enabling factors: factors that support an individual's decision to seek health service, such as occupation, income, quality of life related to health care, geographic distance to health facilities (68)

Need factors: include perceived health status, presence of chronic disease, physician abilities and skill, satisfaction with health care service and availability of demanding service and drugs(69)

Elderly population: Those people age sixty (60) and above years old (3).

4.9. DATA COLLECTION TOOL

Structured data collection questionnaire used as a tool after thorough literature search to suit local needs (40,70,71), (72,73), (74) and adopted. The instrument was arranged according to the particular objective it addresses that predisposing factors, enabling factors and need for care factors. First, the questionnaire was developed in English and then translated into Amharic. To check for its consistency it was also again translated back into English by other translators who

have experience of similar works. The instrument was arranged according to the particular objectives.

4.10. DATA COLLECTION TECHNIQUE

Data was collected through face-to-face interviews by data collectors. Four Mph students participated as data collectors & two supervisors were recruited and they took two days training to have a common understanding of the tool, Respondents who were not present at home during data collection time was asked by returning three times and if they are not present still, they were considered as non-respondents.

4.11. PRETEST

The questionnaire was pre-tested on respondents outside of the study area on 5% of respondents in Bahir Dar City before the start of actual data collection. Understandability, completeness of questions and some corrections were assessed based on the result of this pre-test.

4.12. DATA ANALYSIS PROCEDURE

After checking the completeness, missing value, and coding of questionnaires, data were entered into EpiData version 4.0. The data was exported to SPSS and analysis was done by using SPSS version 25.0. Descriptive statistics were employed to see the distribution of the variables. Binary Logistic regression analysis was carried out and all variables with a p-value less than 0.25 in the bi-variate analysis were considered as candidates for multiple logistic regression analysis to identify a variable that has a significant association based on OR, with 95% CI and P-value of less than 0.05.

4.13. ETHICAL CONSIDERATION

After approval of the proposal, formal letter obtained from research ethical committee of Bahir Dar University on the date of 06/07/2013 EC. With Ref. No. MD/11747/1.4.4. The necessary permission was also obtained from Bahir Dar administrative council and the kebele administrative office. Informed consent was obtained from the study participants (elderly) after explaining the purpose of the study. Participants were assured that their names were not stated. Data was kept i.e. confidential and nameless, and it was used only for research purposes. They

have also informed us they had full right not to participate in the study as well as to withdraw any time during the interviewing.

4.14. DISSEMINATION PLAN

The findings of this study will be disseminated to the college of medicine and health sciences, School of health sciences, department of adult health nursing, Bahir Dar District Administration and Health Office, Amhara regional health bureau. The findings will be also disseminated to different stakeholders that have contributions to improve elderly healthcare use. Finally, the findings will be used as a plan for the concerned bodies.

5. RESULT

Socio-demographic Characteristics

Among a total of 634 study subjects planned, 625(98.6%) gave their complete responses. More than half of the respondents 320 (51.2%) were females and 288(46.1%) were within 60- 64 age group. Of the 625 respondents, 419 (67.0%) lived in urban kebeles.

Table2: Socio-demographic characteristics of the elderly population, in Bahir dar city, Amhara region, North-west, Ethiopia, 2021.

Predisposing Factors		Frequency	Percent (%)
Sex	Male	305	48.8
	Female	320	51.2
Age	60-64	288	46.1
	65-69	184	29.4
	70-74	50	8.0
	75-79	37	5.9
	80-84	26	4.2
	+85	40	6.4
Religion	Orthodox	584	93.4
	Protestant	11	1.8
	Muslim	24	3.8
	Catholic	6	1.0
Residence	Urban kebele	419	67.0
	Rural kebele	206	33.0
Marital status	Married	505	80.8
	Divorced	37	5.9
	Separated	16	2.6
	Widowed	67	10.7
Education	Unable to read and write	128	20.5
	Primary education	255	40.8
	Secondary education	141	22.6
	Higher education	101	16.2
Ever used	Yes	143	22.9

Substances	No	482	77.1
Types of substance used	Chat	13	2.1
	Alcohol	124	19.8
	Tobacco	6	1.0

Enabling factors

Regarding their living arrangements, 487 (77.9 %) study participants lived with their family members. Nearest to half 311 (49.8%) participants got care during illness by their children and 248 (39.7%) got care by their spouses during illness. 454 (72.6%) of study participants reported as they can pay for their medical services. Among a total of 625 study subjects, 131 (21%) participants reported as they engaged in community health insurance.

Table3: **Enabling factors of the elderly population in Bahir dar city, Amhara region, North-west, Ethiopia, 2021.**

Enabling factors		Frequency	Percent
Home	Own	582	93.1
	Municipal rent	24	3.8
	Private rent	19	3.0
Occupational status	Housewife	79	12.6
	NGO	16	2.6
	Farmer	80	12.8
	Trader	246	39.3
	Pension	73	11.7
	Governmental employed	32	5.1
	Unable to work	90	14.4
	Others	9	1.4
Living Arrangements	Alone	16	2.6
	Relative	19	3.0
	Family	573	91.7
	Servant	17	2.7
Care giver during	Spouse	248	39.7

illness	Servant	50	8.0
	Child	311	49.8
	None	16	2,6
Being able to pay for medical services	Yes	454	72.6
	No	171	27.4
Distance from a nearby health facility	Less than 30 minutes	498	79.7
	30-60 minutes	104	16.6
	Greater than or equal 60 minutes	23	3.7
Monthly income	Less than 750 birr	20	3.2
	More than 750 birr	605	96.8
Health insurance	Yes	131	21.0
	No	494	79.0
Numbers of people close you during you have great personal problem?	1. None	16	2.6
	2. 1-2	127	20.3
	3. 3-5	328	52.5
	4. More than 5	154	24.6
The interest and concern of people show in what you do	1. None	16	2.6
	2. Little	24	3.8
	3. Uncertain	178	28.5
	4. Some	336	53.8
	5. a lot	71	11.4
easy to get practical help from neighbors if you should need it	1. Very difficult	14	2.2
	2. Difficult	29	4.6
	3. possible	172	27.5
	4. Easy	344	55.0
	5. Very easy	66	10.6

Need factors

From 625 study subjects 264 (42.2%) participants had medical history of chronic diseases, 32 (5.1%) reported difficulty with picking up things in the last 30 days, 109 (17.4) had the difficulty to see and recognize an object at a distance of about 20 meters and more than one-tenth 74 (11.8 %) reported as they had pain feeling symptom.

Table4: Distribution of the need indicators for healthcare services in the last one year among the elderly in Bahir dar city, north-west, Ethiopia 2021.

Need factors		Frequency	%
Self-reported health status	Very good	43	6.9
	Good	246	39.9
	Moderate	233	37.3
	Poor	90	14.4
	Very poor	13	2.1
Medical history of chronic conditions	Yes	264	42.2
	No	361	57.8
difficulty to see and recognize an object at a distance of about 20 meters	Yes	109	17.4
	No	516	82.6
Difficulty with picking up things in the last 30 days	Yes	32	5.1
	No	593	94.9
Feels pain now	Yes	74	11.8
	No	551	88.2

Utilization of Healthcare Service

Data on healthcare utilization were available for 625 participants. Of these, 405 (64.8%) reported having utilized healthcare services utilization in the past one year. Regarding preferable modern health facilities where respondents want to get health care service, 214 (34.2%) respondents preferred to get the services from public hospitals, 142 (22.7%) got from the health

center, while 182 (29.1%) and 87(13.9%) preferred to get from private hospital and clinics respectively.

Table5: Utilization of Healthcare Service in Bahir dar city north-west Ethiopia, 2021

Variables		Frequency	Percent (%)
Healthcare utilization (N=625)	Yes	405	64.8
	No	220	35.2
Types of health care service preferences	Modern heath service	448	71.7
	Traditional health service	22	3.5
	Home remedies	49	7.8
	Holy water	72	11.5
	Others	34	5.4
Types of modern health facilities visited	Governmental Hospital	214	34.2
	Private Clinic	87	13.9
	Health center	142	22.7
	Private hospital	182	29.1

Reasons for not utilized healthcare service

There are a lot of reasons that hinder those individuals who needed health care but could not obtain health care service. Among those reasons financial problems 77(35%) considering that the illness is not Serious 52 (23.6%), lack of health facility and medical supplies 30 (13.6%), self-medication 61 (27.7%).

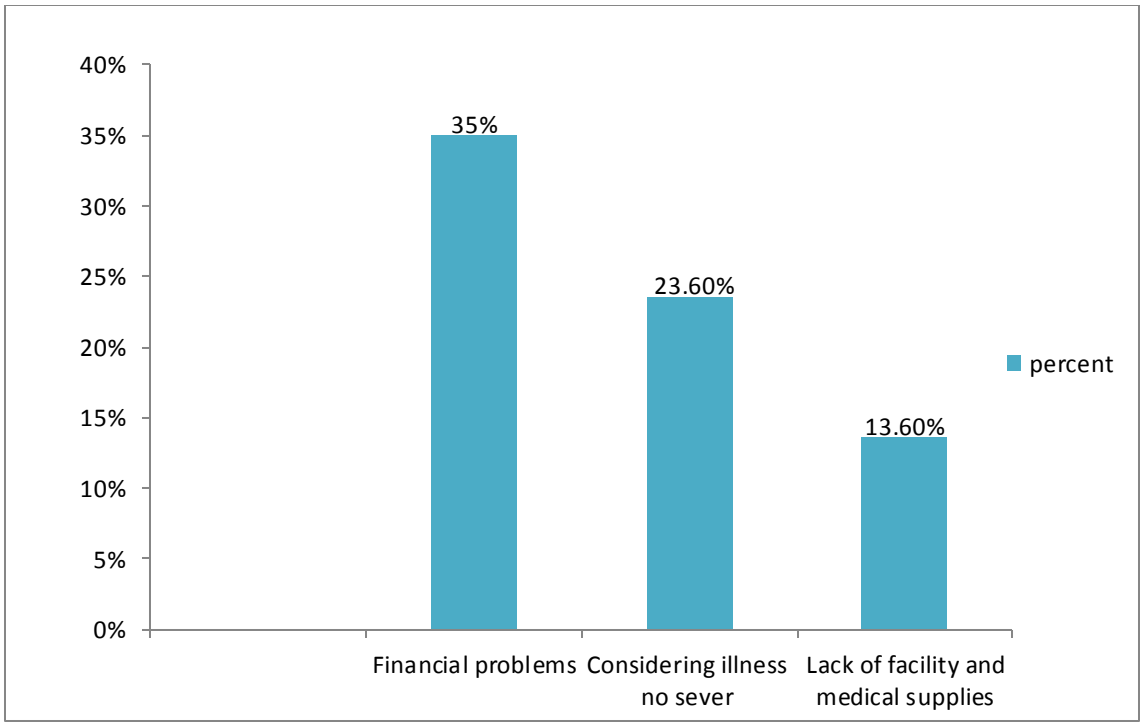

Figure3: Reasons for not utilized healthcare service in Bahir dar city, Amhara region, North-west, Ethiopia, 2021.

5.1. DETERMINANTS OF HEALTH SERVICE UTILIZATION

Multivariable logistic regression analysis was carried out to identify determinants of healthcare utilization among the study subjects. The p-value <0.05 criterion of statistical significance was employed for all cases. Education, health insurance, income, being able to pay for medical services and having known chronic illness are the major determinants of healthcare utilization in this study.

The odds of respondents who reported as having a history of chronic diseases 6.634 times more likely utilized health care than participants without any of the chronic conditions [AOR=6.634; CI: 4.159-10.582]. The respondents who had a history of unable to read and write 90.3% less likely utilized than higher education [AOR =0.097; CI: 0.043-0.219]. Similarly, the odds of respondents who had community health insurance 14.570 times more utilized than those respondents who had no community health insurance [AOR=14.570; CI:7.359 -27.846]. On the other hand, the study participants who had less than seven hundred fifty birrs monthly income 83.4% less likely utilized health services than participants who had monthly income more than

seven hundred fifty birrs [AOR= 0.166, CI: 0.047-0.582]. Health care utilization was 4.358 times higher among participants with being able to pay for medical service compared to those participants was unable to pay for medical services [AOD= 4.358, CI: 2.545-7.462].

Table5: healthcare service utilization and factors associated with it in the last 1 year among the elderly in Bahir dar city, Amhara Region, North-west, Ethiopia, 2021.

Variables	Categories	Healthcare utilization		COR	P-value	AOR(95% CI)	p-value
		No	Yes				
Sex	Male	130	190	1		1	
	Female	90	215	1.635	0.004	1.118(0.726 -1.723)	0.612
Residence	Rural kebele	87	119	1		1	
	Urban kebele	133	286	1.572	0.010	1.031 (0.608 -1.747)	0.911
Education	Higher education	12	89	1		1	
	Secondary education	53	88	0.741	0.172	0.815(0.474-1.403)	0.461
	Primary education	97	158	0.727	0.199	0.583(0.313-1.085)	0.089
	Unable to read and write	58	70	0.163	0.000	0.097(0.043-0.219	< 0.001*
Ever used substances	No	177	305	1		1	
	Yes	43	100	1.350	0.144	1.303(0.783 -2.169)	0.308

Health insurance	No	203	291	1		1	
	Yes	17	114	4.678	0.000	14.570(7.359-27.846)	< 0.001*
Able to pay for medical service	No	85	86	1		1	
	Yes	135	319	2.335	0.000	4.358(2.545-7.462)	< 0.001*
Distance to a nearby health facility	>= 60 munitie	12	11	1		1	
	30-60 minute	43	61	1.423	0.110	1.287(0.693 -2.388)	0.424
	< 30minute	165	333	2.202	0.065	2.772(0.796-9.654	0.109
Monthly income	>=750 birr	206	399	1		1	
	< 750 birr	1 4	6	0.221	0.002	0.166(0.047-0.582)	0.005
history of chronic conditions	No	166	195	1		1	
	Yes	54	210	3.311	0.000	6.634(4.159-10.582)	< 0.001*
difficulty to see and recognize an object at distance of 20 meters	No	194	322	1		1	
	Yes	26	83	1.923	0.007	1.439(0.717 -2.890	0.306
Difficulty of pick up things in the last 30 days	No	214	379	1		1	
	Yes	6	26	2.447	0.052	2.570(0.830-7.962)	0.102
Do you have Pain Feeling	No	202	349	1		1	
	Yes	18	56	1.801	0.039	1.082(0.489-2.394	0.845

* P-value ≤ 0.001

6. DISCUSSION

This study assessed healthcare utilization and its determinants among the elderly population in Bahir Dar City both in urban and rural kebeles. The finding indicates that nearly two-thirds of elderly participants (64.8%) utilized modern healthcare services in the past one year. This finding is lower than the study conducted in Singapore among elders, which indicated that; 84% of the respondents had utilized healthcare services in the past one year (48). The discrepancy might be due to high familiarization about health care services, availability of health facilities and the presence of exempted services for elderly people. But this finding is higher than the study conducted in Jimma zone and Bedele Town Ethiopia (40,52). This discrepancy might be due to the study period and socio-demographic characteristics of the elderly population in different areas.

Concerning to a history of chronic diseases, this study shows that the presences of identified medical history of chronic conditions utilize healthcare service than the counterpart. The finding is higher than the study done in Bangladesh(54). The discrepancy might be the difference access to health facilities; the study is conducted at different times and in different areas. Among study subjects with a history of chronic diseases the most reasons for visiting the healthcare facility are due to musculoskeletal pain (arthritis), diabetes mellitus, and hypertension. The finding of this study different from the study done in North Iran in which the most reasons for visiting the healthcare facilities were due to musculoskeletal pain, hypertension, common cold and chest pain respectively (43).

The discrepancy might be due to socio-demographic characteristics, study area and period, numbers of participants in countries and chronic conditions that have been consistently acknowledged in many studies to adversely affect lives of the elderly people and consequently influence their healthcare use. This finding shows that those individuals who have a history of unable to read and write 90.3% less likely utilized healthcare services than higher education. This result is lower than the study conducted in Ghana (63). The discrepancy might be due to high familiarization about health care services, accessibility of health facilities and might be the presence of exempted services for elderly people.

In the present study having a history of chronic diseases, unable to read and write, community health insurance, monthly income, and unable to pay for medical services are the determinants of healthcare service utilization among the elderly in Bahir dar city. The respondents who reported having a history of chronic diseases more likely utilized health care than participants without any of the chronic conditions. This is consistent with the study conducted in Bedele Town, Ethiopia; the respondents with a medical history of chronic diseases were more likely utilized healthcare services than participants without any of the chronic conditions (40).

The respondents with a history of unable to read and write less likely utilized health services than a history of having higher education. This finding agrees with findings from Ghana and Malaysia (63,64). Those who are engaged in the community health insurance membership scheme more likely utilized healthcare services than those who did not possess community health insurance membership. This finding is consistent with the study conducted in Yamoransa in Ghana(63).

On the other hand, the study participants who had less than seven hundred fifty birrs monthly income 83.4% less likely utilized health services than participants who had monthly income more than seven hundred fifty birrs. This finding is consistent with the study conducted in Jimma and Bedele Town, Ethiopia(40,52). The cost of healthcare service is a persistent barrier among elderly people. This is because most old are highly vulnerable to poverty and dependency as they can no longer produce sufficiently by themselves to meet their needs. In contrary to this, the study conducted in Ghana and Malaysia showed that; Age and marital status were significantly associates with healthcare services utilization (63,64). The discrepancy may be due to time of data collection, place of residency and economic status of each country.

7. STRENGTH OF THE STUDY

- The study has a high response rate (98.6% response)
- This study included 12 kebeles in the city therefore generalization of the result was made in this city.

8. LIMITATION OF THE STUDY

- ✓ The prevalence of illness episodes might be underestimated due to recall bias.
- ✓ Some responses for questions like sensory impairment can depend on respondents
- ✓ There is no adequate similar published study conducted in our country especially in the study area, therefore comparing results made it difficult.

9. CONCLUSION AND RECOMMENDATIONS

Conclusion

The overall healthcare service utilization is nearly about two third. which is found to below . In this study, history of chronic diseases, unable to read and write, community health insurance, monthly income and unable to pay for medical services are distinguishable determinants of healthcare utilization among the elderly population.

Recommendations

- Bhir dar city administration office and NGOs those work on old persons shall give special attention for poor older persons or those who don't have enough money to get low-cost healthcare services.
- Health facilities and other stakeholders shall give community-based health education for the elderly to improve the healthcare maintenance practices.
- More efforts shall be given to improve the health of elders by giving attention to solving demand-side challenges by engaging all elders in community health insurance.
- Health service providers shall identify and understand the situation of elderly population and consequently create a conductive environment to provide proper healthcare services.

- Further study should be conducted by the researchers to strengthen the result of this study.

REFERENCES

1. Luz Yolanda Toro Suarez. : Health Care Utilization in America. 2015;1–27.
2. UN World Bank. World Population Ageing 2019 [Internet]. World Population Ageing 2019. 2019. 64 p. Available from: http://link.springer.com/chapter/10.1007/978-94-007-5204-7_6
3. United Nations. Department of Economic and Social Affairs, Population Division (2017). World population ageing 2017 - Highlights. 2017. 46 p.
4. Colombo PJ, Crawley ME, East BS, Hill AR. Aging and the Brain. Encycl Hum Behav Second Ed. 2012;53–9.
5. Tables A. World Population Prospects The 2012 Revision. 2013;
6. Guimarãaes RM. Ageing in Developing Countries. Vol. 2, Pathy's Principles and Practice of Geriatric Medicine: Fifth Edition. 2012. 1761–1764 p.
7. Kulik CT. Institutional Knowledge at Singapore Management University Aging Populations and Management : From the Editors. 2014;929–35.
8. Goldman DP, Chen C, Zissimopoulos J, Rowe JW, Antonucci T, Berkman L, et al. Measuring how countries adapt to societal aging. Proc Natl Acad Sci U S A. 2018;115(3):435–7.
9. Peltzer K, Williams JS, Kowal P, Negin J, Josh J, Yawson A, et al. Universal health coverage in emerging economies : findings on health care utilization by older adults in China , Ghana , India , Mexico , the Russian Federation , and South Africa Universal health coverage in emerging economies : findings on health care u. 2014;9716.
10. Bartels SJ, Naslund JA. The Underside of the Silver Tsunami — Older Adults and Mental Health Care. N Engl J Med. 2013;368(6):493–6.

11. Statistical C. 2007 POPULATION and HOUSING CENSUS OF ETHIOPIA ADMINISTRATIVE REPORT Central Statistical Authority Addis Ababa. 2012;(April).

12. Bahir Dar City Administration. Popu. size by Sex and Age Group and Urban Rural. 2020.

13. Hons JXN, Wang L, Tracy CS, Moineddin R. Health care service utilization among the elderly : findings from the Study to Understand the Chronic Condition Experience of the Elderly and the Disabled (SUCCEED project). 2008;14:1044–9.

14. Kennerfalk A, Ruigómez A, Wallander M, Wilhelmsen L, Johansson S. Geriatric Drug Therapy and Healthcare Utilization in the United Kingdom RESULTS : 2002;36:797–803.

15. Zhang P, Zhang X, Brown J, Vistisen D, Sicree R, Shaw J, et al. Global healthcare expenditure on diabetes for 2010 and 2030. Diabetes Res Clin Pract [Internet]. 2010;87(3):293–301. Available from: http://dx.doi.org/10.1016/j.diabres.2010.01.026

16. Or E. Health status and utilization of health services 3. 2000;25–40.

17. Boutayeb A, Boutayeb S. The burden of non communicable diseases in developing countries. Int J Equity Health. 2005;4(Table 1):1–8.

18. Sethi D, Wood S, Mitis F, Lowenstein A, Manthorpe G, Ulvestad Karki F, et al. European report on preventing elder maltreatment. 2011;100p. Available from: http://www.euro.who.int/__data/assets/pdf_file/0010/144676/e95110.pdf

19. World Health Organization. Guidelines for the screening, care and treatment of persons with hepatitis C infection. 2016. p. 1–135.

20. Baer B, Ma AB, Abou H, Drph T, Llm JV, Llm RT. The Right to Health of Older People. 2016;56:206–17.

21. Andersen RM. Revisiting the Behavioral Model and Access to Medical Care : Does It Matter . 2010;36(1):1–10.

22. Barker I, Steventon A, Williamson R, Deeny SR. Self-management capability in patients with long-term conditions is associated with reduced healthcare utilisation across a whole health economy: Cross-sectional analysis of electronic health records. BMJ Qual Saf.

2018;27(12):989–99.

23. Ghobarah HA, Huth P, Russett B. Comparative public health: The political economy of human misery and well-being. Int Stud Q. 2004;48(1):73–94.

24. Page M, Schaller J, Simon D. The effects of aggregate and gender-specific labor demand shocks on child health. J Hum Resour. 2019;54(1):37–78.

25. Hoyle JA. A Matter of Framing: Explaining the Failure of Post-Islamist Social Movements in the Arab Spring. Dig Middle East Stud. 2016;25(2):186–209.

26. Muralidhar MK, Shetty RS, Kamath A, Darshan BB, Sujatha K, Kamath VG. Morbidities among Elderly in a Rural Community of Coastal Karnataka : A Cross- Sectional Survey Morbidities among Elderly in a Rural Community of Coastal Karnataka : A Cross-Sectional Survey. 2014;(5):5–10.

27. Paper HW. Socioeconomic and Health Determinants of Health Care Utilization Among Elderly Europeans : A New Look at Equity , Intensity and Responsiveness in Ten European Countries Jürgen Maurer October 2007 Socioeconomic and Health Determinants of Health Care Utiliz. 2007;(October).

28. Woo J, Mak B, Yeung F. Age-Friendly Primary Health Care: An Assessment of Current Service Provision for Older Adults in Hong Kong. Heal Serv Insights. 2013;6:69–77.

29. Leino-kilpi H. Nursing Ethics. 2010;

30. Saka S, Oosthuizen F, Nlooto M. National policies and older people's healthcare in sub-saharan africa: A scoping review. Ann Glob Heal. 2019;85(1):1–7.

31. Levine DM, Landon BE, Linder JA. Quality and Experience of Outpatient Care in the United States for Adults with or Without Primary Care. JAMA Intern Med. 2019;

32. Akoria OA. Establishing in-hospital geriatrics services in Africa: Insights from the University of Benin Teaching Hospital geriatrics project. Ann Afr Med. 2016;

33. Aboderin I. Understanding and Advancing the Health of Older Populations in sub-Saharan Africa : Policy Perspectives and Evidence Needs. 2016. 32(2):357–76.

34. Xu Ke,James Chris CG, Summary E, Zelelew H, USAID health systems20/20, The Federal Democratic Republic of Ethiopia Ministry of MoH, Dibaba A, et al. Ethiopian national health care quality strategy: Transforming the quality of health care in Ethiopia. Value Heal Reg Issues [Internet]. 2014;4(March):1–74. Available from: http://dx.doi.org/10.1016/j.vhri.2014.06.005%0Ahttp://www.who.int/evidence/sure/policybriefs/en/%0Ahttp://www.healthsystems2020.org/content/resource/detail/85865/%0Ahttp://www.who.int/evidence/sure/esimprovinghealthcarefinancingethiopia.pdf

35. Alebachew A, Mitiku W, Mann C, Berman P. Exempted Health Serivces in Ethiopia: Cost Estimates and its Financing Challenges. 2018;(June):26.

36. Croke K. The origins of Ethiopia's primary health care expansion: The politics of state building and health system strengthening. Health Policy Plan. 2020;1–10.

37. Bergen N, Ruckert A, Abebe L, Asfaw S, Kiros G, Mamo A, et al. Characterizing 'health equity' as a national health sector priority for maternal, newborn, and child health in Ethiopia. Glob Health Action [Internet]. 2021;14(1). Available from: https://doi.org/10.1080/16549716.2020.1853386

38. Bobo FT, Yesuf EA, Woldie M. Inequities in utilization of reproductive and maternal health services in Ethiopia. International Journal for Equity in Health. 2017.

39. Tarekegn SM, Lieberman LS, Giedraitis V. Determinants of maternal health service utilization in Ethiopia: Analysis of the 2011 Ethiopian Demographic and Health Survey. BMC Pregnancy Childbirth. 2014;

40. Zone I. Determinants of Health Service Utilization among Older Adults in Bedele Town ,. 2016;7(11):1–7.

41. Balabanova D, McKee M, Pomerleau J, Rose R, Haerpfer C. Health service utilization in the former Soviet Union: Evidence from eight countries. Health Serv Res. 2004;39(6 II):1927–50.

42. Shrivastava SRBL, Shrivastava PS, Ramasamy J. Health-care of elderly: Determinants, needs and services. Int J Prev Med. 2013;4(10):1224–5.

43. Poor Pn. pattern of utilization of health services among old age groups in. 2009;12(1):13

44. Chukwudi ON, Uyilewhoma IM, Chukwudi OE, Ebi EJ, Emmanuel ONM, et al. Determinants of Health Services Utilization among the Elderly in Calabar Municipality , Cross River State , Nigeria To cite this article : 2015;3(5):129–36.

45. Zhang X, Yu B, He T, Wang P. Status and determinants of health services utilization among elderly migrants in China. 2018;1–10.

46. Hajek A, Bock J, König H. Which factors affect health care use among older Germans ? Results of the German ageing survey. BMC Health Serv Res [Internet]. 2017;1–8. Available from: http://dx.doi.org/10.1186/s12913-017-1982-0

47. Madyaningrum E, Chuang Y, Chuang K. Factors associated with the use of outpatient services among the elderly in Indonesia. 2018;1–9.

48. George PP, Heng BH, Antonio J, Molina DC, Wong LY, Charis N, et al. Self-reported chronic diseases and health status and health service utilization - Results from a community health survey in Singapore. 2018;1–7.

49. Dodd W, King N, Humphries S, Little M, Dewey C. Self-reported morbidity and health service utilization in rural Tamil Nadu, India. Soc Sci Med. 2016;

50. Awoke MA, Negin J, Moller J, Farell P, Alfred E, Biritwum RB, et al. Predictors of public and private healthcare utilization and associated health system responsiveness among older adults in Ghana. Glob Health Action [Internet]. 2017;10(1). Available from: https://doi.org/10.1080/16549716.2017.1301723

51. Birmeta K, Sim BR, Kim D, Dhakal S, Do YA, Nam EW. Primary Health Care : Open Access Analyzing Barriers to Accessing Health Care Services in Holeta Town ,. 2015;5(2).

52. Terfa* YB, , Gugsa Nemera Germossa, Fikadu Balcha Hailu GT, Feyissa FTJ and SOS. Nursing and Health Care Determinants of Health Care Utilization among the Elderly Popu -. 2019;

53. Valtorta NK, Moore DC, Barron L, Stow D, Hanratty B. Older Adults ' Social Relationships and Health Care Utilization : A Systematic Review. 2018;108(4):1–10.

54. Mattson J. Transportation, distance, and health care utilization for older adults in Rural and small Urban Areas. Transp Res Rec. 2011;(2265):192–9.

55. Kalam IMS, Khan HTA. Morbidities among older people in Bangladesh: Evidence from an ageing survey. Brac Univ J. 2016;3(2):75–83.

56. Liu LF, Tian WH, Yao HP. Utilization of health care services by elderly people with National Health Insurance in Taiwan: The heterogeneous health profile approach. Health Policy (New York). 2012;

57. Town A, Zone WS. Health Service Utilization and associated factors Among Older Adults. 2019;2011(8):8–19.

58. Amiri ZM, Poor PN, Shakib AJ. Pattern of utilization of health services among old age groups in rural area of north of Iran. Turk Geriatr Derg. 2009;12(1):13–7.

59. Sanjel S, Mudbhari N, Risal A, Khanal K. The Utilization of Health Care Services and their Determinants Among the Elderly Population of Dhulikhel Municipality. 2011;2–7.

60. Awoyemi TT, Obayelu OA, Opaluwa HI. Effect of Distance on Utilization of Health Care Services in Rural Kogi State, Nigeria. J Hum Ecol. 2011;35(1):1–9.

61. Exavery A. Determinants of health care utilisation among the elderly population in rural Ghana. 2010;1–31.

62. Wandera SO, Kwagala B, Ntozi J. Determinants of access to healthcare by older persons in Uganda : a cross-sectional study. 2015;1–10.

63. Yeboah I, Ampomah I. Determinants of Healthcare Facilities and Services Utilisation among the Aged : Evidence from Yamoransa in Ghana. 2014;42–55.

64. Yunus M, Hazilah N, Manaf A, Omar A. Determinants of Healthcare Utilisation among the Elderly in Malaysia. 2017;9(3):115–40.

65. Oladipo JA. Utilization of health care services in rural and urban areas: A determinant factor in planning and managing health care delivery systems. Afr Health Sci. 2014;14(2):322–33.

66. Tadele Amente et.al, Determinants of Health Service Utilization among Older Adults in Bedele Town, 2016;7(11):1–7.

67. Mohammed AE. Addis Ababa University , College of Health Sciences , School of Public Health Field Epidemiology Training Program (FETP). 2016;88.

68. Girma F, Jira C, Girma B. Original Article Health Services Utilization And AssociateD Factors In Jimma Zone , South West Ethiopia. (4):91–100.

69. Gan-Yadam A, Shinohara R, Sugisawa Y, Tanaka E, Watanabe T, Hirano M, et al. Factors associated with health service utilization in ulaanbaatar, mongolia: A population-based survey. J Epidemiol. 2013;23(5):320–8.

70. G-P. Health care utilization in the elderly Mexican population: expenditures and determinants. BMC Public Health [Internet]. 2011;11:192. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=emed10&NEWS=N&AN=21443805

71. By S, Das S, Biswal RK. The Role Of Family In Health And Healthcare Utilization Among Elderly Under the Guidance of. 2012;(May).

72. Moe Dr. S, Tha K, Naing DKS, Htike MMT. Health seeking behaviour of elderly in Myanmar. Int J Collab Res Intern Med Public Heal. 2012;4(8):1538–44.

73. Aye SKK, Hlaing HH, Htay SS, Cumming R. Multimorbidity and health seeking behaviours among older people in Myanmar: A community survey. PLoS One. 2019;14(7):1–15.

74. Wu S, Wang R, Zhao Y, Ma X, Wu M, Yan X, et al. The relationship between self-rated health and objective health status : a population-based study. 2013;

ANNEX 1: QUESTIONNAIRE IN ENGLISH VERSION FOR ELDERLY POPULATION

PART ONE: VERBAL CONSENT

Greeting!

The Researcher is a student of Bahir Dar University College of medicine and health science, Department of adult health. His name is **Dawit Algaw**. He is attending a Master of Adult health nursing. He is researching in the area of the determinants of Healthcare Utilization from the Perspective of elderly people in Bahir Dar city Amhara Region in partial fulfillment of the requirement for the award of a Master's degree in the above-named program.

The purpose of this study is to assess the prevalence of Healthcare Utilization and its determinants among elderly people in Bahir Dar city. The researcher believes that this study will help to improve the utilization of Healthcare Services for the elderly population. The reliability of the information that you provide me is very important for the quality of the study. Therefore, you are kindly requested to participate in this study and provide the information required from you. Your participation in this study is completely voluntary basis and you have a right to refuse, to take part or to interrupt the interview at any time. But the information that you will give me is quite useful to improve Healthcare utilization that is provided in Bahir Dar city.

This questionnaire is for academic purposes only and respondents are assured of utmost confidentiality. The researcher has promised all information obtained from you; will be kept confidential. Any reporting of data will be anonymous. He will not use your name on any reports.

Are you willing to participate in this study?

1) Yes, Signature_____

2) No_____

If the answer is yes, thanks and conduct the interview. If the answer is no, thanks and transfer to other respondent. Don't force them to participate in the study.

Name of the interviewer_____ signature_____

Date of the interview_____ Month_____2013

Kebele name: ---------- Kebele code: ----------Participants ID No.: _____

Name of the supervisor _____signature_____

PART TWO: INTERVIEW QUESTIONNAIRE

Interview questionnaire for community-based survey on Factors affecting the Healthcare utilization of older adults in Bahir Dar city Amhara Region

PART ONE: - Questions related to predisposing factors (Socio-demographic Characteristic)

No	Questions	Possible Response	
101	Sex	1. Male 2. Female	
102	How old are you?	----------years	
103	What is your religion?	1. Orthodox 4. Muslim 2. Protestant 5. Catholic 3. Other (specify)	
104	Residence	1.Urban	
		2.Rural	
105	What is your current Marital status?	1. Single 4. Divorced 2. Married 5. Separated 3. Widowed	
106	What is your educational status?	1. Never attended school (Illiterate) 2. Basic primary Education (Grade 1-8) 3. Secondary school (Grade 9-12) 4. Tertiary Level	
107	How many persons live in your household? (number of persons in your family)	----------	

108	Do you have used substances currently?	1. Yes 2. No	
109	If Q.No. 108 is yes, types of substance used	1. Chat 3. Tobacco 3. Alcohol 4. Others---------	If no Skip to110
Enabling factor questionnaires			
110	Home	1. Own 3. Private rent 2. Municipal rent	
111	Occupation	1. Housewife 5.pension 2. NGOs 6. G/ employed 3. Farmer 7. Unable to work 4 Trader 8.oyhers	
112	How much is your family average monthly income?	_____ETB/month	
113	being able to pay for medical service	1. Yes 2. No	
114	Distance from a nearby health facility	----------in minute	
115	Do you have community health insurance?	1. Yes 2. No	
116	Living arrangement?	1. Alone 3. Relative 5.Servant 2. Child 4. Family	
Three item social support questionnaires(117-119)			
117	How many people are so close to you that you can count on them if you have great personal problem?	1. None 3. 3-5 2. 1-2 4. More than 5	

118	How much interest and concern do people show in what you do?	1. None 3. Uncertain 2. Little 4. Some 5. a lot	
119	How easy it to get practical help from neighbors if you should need it?	1, Very difficult 3. possible 2. Difficult 4. Easy 5. Very easy	
Need factor questionnaires			
120	How would you rate your health today	1. Very good 4. Bad 2. Good 5. Very bad 3. Moderate	
121	Which one is your Preference for seeking care?	1. Modern Health services 2. Traditional hailers 3. Home remedies 4. Others-------	
122	Reasons for hospital /health center visit	1. General body checkup 2. Illness 3. Counseling 4.Appointment	
123	If you had not used health service, what was your main reason not visiting a medical doctor or health professionals?	1. distance to health facility 2. lack of awareness 3. self-medication 4. unable to pay 5. unavailability of drugs and service 6. considering the illness was not severe 7. Others ……	
124	Do you have any known chronic illness?	1. Yes 2. No	
125	If QNo. 124 is yes which types of known chronic illness do you have?	1. Hypertension 5. Arthritis 2. Cardiac problem 6. Asthma 3. Cataract 7. Diabetes 4. Stroke	If no skip to 126

126	Do you have difficulty with picking up things in the last 30 days	1. Yes 2. No	
127	Do you have difficulty to see and recognizing an object at a distance of about 20 meters	1. Yes 2. No	
128	Do you have pain feeling?	1. Yes 2. No	
129	If yes how can you classify frequency of your pain?	1. Always 2. Usually 3. Sometimes	
130	Who give care for you during illness?	1. No 2.Spouse 3. Child 4. Other 5. Servant	
131	Did you have an episode of illness within the last 12 months?	1. Yes 2. No	
132	Do you have physician visits in the previous two weeks?	1. Yes 2. No	
133	Do you have visit Hospital /health center in the last 12 months?	1. Yes 2. No	
134	If Q.N 133 is yes total numbers of ambulatory physician visits in the past one year	1. One time 4. Four times 2. Two times 5. Five times 3. Three times 6. Six and more	If no skip to 135
135	Do you have admitted in health facility?	1.Yes 2.No	
136	If Q.N 135 is yes total number of inpatient / hospitalized in the past one year?	1. One time 4. Four times 2. Two times 5. Five times 3. Three times 6. Six and more	If no Skip To 137
137	Where did you get medical treatment most of the time in the past 12 months? (in terms of level)	1. Hospital 3. clinic 2. Health center 4. Others specify…	

ANNEX2: AMHARIC VERSION QUESTIONNAIRE FORM

አባሪ 1: እድሚያቸው ከ60 ዓመት በላይ ለሆኑ ማህበረሰብ መሠረት ያደረገ የጥናት ጥያቄ ቅፅ

ክፍል አንድ-የቃል ውል ሰላምታ!

ተመራማሪው የባህር ዳር ዩኒቨርሲቲ የህክምና እና የጤና ሳይንስ ኮሌጅ የአዋቂዎች ጤና ተማሪ ነው ። ስሙ ዳዊት አልጋው ይባላል ። እርሱም የአዋቂዎች ጤና ነርስ ማስተርስ እየተማረ ይገኛል። በአማራ ክልል በባህር ዳር ከተማ ውስጥ አረጋውያንን በሚመለከት የጤና እንክብካቤ አጠቃቀምን በሚወስኑ ጉዳዎች ላይ ከላይ በተጠቀሰው መርሃግብር ውስጥ የማስተርስ ዲግሪ ሽልማት የሚያስፈልጉትን በከፊል በማሟላት ላይ ይገኛል ።

የዚህ ጥናት ዓላማ በባህር ዳር ከተማ ውስጥ በዕድሜ ከገፉ ሰዎች መካከል የጤና እንክብካቤ አጠቃቀምን የሚወስኑ ተግዳሮቶችን መገምገም ነው ። ይህ ጥናት የአዋቂዎችን የጤና እንክብካቤ አገልግሎት አጠቃቀምን ለማሻሻል እንደሚረዳ ተመራማሪው ያምናሉ ። ለእኔ ያቀረቡልኝ መረጃ ተዓማኒነት ለጥናቱ ጥራት በጣም አስፈላጊ ነው ። ስለሆነም በዚህ ጥናት ውስጥ እንዲሳተፉ እና ከእርስዎ የሚፈልገውን መረጃ እንዲያቀርቡ በትህትና ተጠይቀዋል ። በዚህ ጥናት ውስጥ ያለዎት ተሳትፎ ሙሉ በሙሉ በፈቃደኝነት ላይ የተመሠረተ ሲሆን በማንኛውም ጊዜ የመከልከል ፣ የመሳተፍ ወይም ቃለመጠይቁን የማቋረጥ መብት አለዎት ። የምትሰጠኝ መረጃ ግን በባህር ዳር ከተማ ያለውን የጤና አጠባበቅ አጠቃቀምን ለማሻሻል ስለሚረዳ በጣም ጠቃሚ ነው ።

ይህ መጠይቅ የሚያገለግለው ለአካዳሚክ ዓላማ ብቻ ነው እናም ምላሽ ሰጪዎች ሚስጥራቸው እጅግ በጣም የተጠበቀ ነው ። ተመራማሪው ከእርስዎ የተገኘውን መረጃ ሁሉ በሚስጥር ለመያዝ ቃል ገብቷል። በማንኛውም ሪፖርቶች ላይ የእርስዎን ስም አይጠቀምም ።

በዚህ ጥናት ውስጥ ለመሳተፍ ፈቃደኛ ነዎት?

1) አዎ ፣ ፊርማ_____

2) አይደለውም_____

መልሱ አዎ ከሆነ አመስግነው ቃለመጠይቁን ያካሂዱ ። መልሱ አይሆንም ከሆነ አመስግነው ለሌላ ተጠሪ ያስተላልፉ ።
በጥናቱ ውስጥ እንዲሳተፉ አያስገድዷቸው.

የቃለ መጠይቅ አድራጊው ስም _____ ፊርማ_____

የቃለ መጠይቁ ቀን_____ ወር_____/ 2013 የቀበሌ ስም: ---------- የተሳታፊው ምስጢር ቁጥር_____ የተቆጣጣሪው ስም _____ ፊርማ_____

ክፍል ሁለት-የቃለ መጠይቅ መሙያ ቅጽ

በአማራ ክልል በባህር ዳር ከተማ በእድሜ የገፉ ሰዎችን የጤና እንክብካቤ አጠቃቀምን በሚነኩ ጉዳዮች ላይ ለማህበረሰብ ጥናት የተደረገ ቃለ መጠይቅ ፡፡

ክፍል አንድ: ማህበራዊ-ተጋላጭ ምክንያቶች (የስነ-ህዝብ ባህርይ) መጠይቅ

ቁጥር	ጥያቄ	የመልስ አማራጮች	
101	ፆታ	ነ. ወንድ 2. ሴት	
102	እድሜ	----------ዓመት	
103	ሃይማኖት	1.አርቶዶክስ 3. ሙስሊም 2. ፕሮቴስታንት 4. ካቶሊክ 5.ሌላ	
104	የሚኖሩበት ከበሌ	1.ከተማ ቀበሌ	
		2.ገጠር ቀበሌ	
105	የጋብቻ ሁኔታ	1. ያገባ/ች 4. ያላገባ/ች 2. የፈታ/ች 5. የሞተችበት/ባት 3. ተነጣጥለው የሚኖሩ	
106	የትምህርት ደረጃ	1. ማንበብና መፃፍ የማይችል/ትችል 2. የመጀመሪያ ደረጃ ትምህርት(1-8) 3. ሁለተኛ ደረጃ ትምህርት(9-12) 4. የሁለተኛ ደረጃ ትምህርት በላይ	
107	በቤተሰብዎ ውስጥ ምን ያህል ሰው ይኖራል	----------	
108	አነቃቂ ንጥረ ነገሮችን ተጠቅመው ያውቃሉ?	1. አዎ 2. የለም	
109	Kመልስዎ አዎ ከሆነ ተጠቅመው የሚያውቁት ንጥረ ነገር ዓይነት ምንድን ነው	1. ቻት 3. ትንባሆ 2. አልኮሆል 4. ሌላ ካለ ይገለጽ--------	

ክፍል ሁለት፡ የአስቻይ ሁኔታዎች መጠይቅ

110	አሁን የሚኖሩበት ቤት የማን ነው	1. የራስ 3. የግለሰብ ኪራይ 2. የማዘጋጃ ቤት ኪራይ	
111	ሥራዎ ምንድን ነው?	1. የቤት እመቤት 6 . ጡረታ 2. ኤንጅአ 7. መስራት አልችልም 3. አርሶ አደር 8. ሌላ 4. ነጋዴ 5. የመ/ሰራተኛ	
112	ወርሃዊ ገቢዎ ምን ያህል ይሆናል?	_____ የኢትዮጵያ ብር	
113	ለህክምና አገልግሎት ክፍያ ይችላሉ	1. አዎ 2. አልችልም	
114	ቤትዎ በአቅራቢያ ካለ የጤና ተቋም ያለው ርቀት በሰአት ምን ያህል ይሆናል	----------ደቂቃ	
115	የማህበረሰብ አቀፍ ጤና መድን ይጠቀማሉ	1. አዎ 2. አልጠቀምም	
116	ከማነ ጋር ነው የመኖሩ ?	1. ለብቻዬ 4. ከቤተሰብ ጋር 2. ከልጅ ወይም ከልጅ ልጅ 5. ከአገልጋይ ጋር 3. ከዘመድ ጋር	
ማህበራዊ ድጋፍን የተመለከተ መጠይቅ			
117	ምን ያህል ሰዎች ለእርስዎ በጣም ቅርብ ስለሆኑ ታላቅ የግል ችግር ካለብዎት በእነሱ ላይ ሊተማመኑ ይችላሉ?	1. ምንም የለኝም 3. ከሶስት እስከ አምስት 2. ከአንድ እስከ ሁለት 4. ከአምስት በላይ	
118	ሰዎች እርስዎ በሚያደርጉት ነገር ምን ያህል ፍላጎት እና አሳቢነት ያሳያሉ?	1. የለም 3. እርግጠኛ አደለሁም 2. ትንሽ 4. ጥቂት 5. ብዙ	
119	ከጎረቤት እርዳታ ለማግኘት ከፈለጉ ምን	1. በጣም ከባድ 3. ይቻላል	

	ያህል ቀላል ነው?	2. አስቸጋሪ 4. ቀላል 5. በጣም ቀላል	
ክፍል ሶስት፡ የፍላጎት ህኔታዎችመጠይቅ			
120	አሁን ላይ የርስዎ የጤና ሁኔታ ምን ይመስላል	1. በጣም ጥሩ 4. መጥፎ 2. ጥሩ 5. በጣም መጥፎ 3. መካከለኛ	
121	ባልፈው አንድ አመት ውስጥ ህመም አጋጥምዎት ነበር?	1. አዎ 2. የለም	
122	ባለፉት ሁለት ሳምንታት ውስጥ የሐኪም ጉብኝቶች አድርገዋል?	1. አዎ 2. የለም	
123	ባልፈው አንድ አመት ውስጥ ሆስፒታል/ የጤና ድርጅት ሄደው ነበር	1. አዎ 2. የለም	
124	ለተ.ቁ 123 መለስዎ አዎ ከሆነ ምን ያህል ተመላላሽ የህክምና አገልግሎት አግኝተዋል	1. አንድ ጊዜ 4. አራት ጊዜ 2. ሁለት ጊዜ 5. አምስት ጊዜ 3. ሶስት ጊዜ 6. ስድስት እና ከዚያ በላይ	
125	ባልፈው አንድ አመት ውስጥ ጤና ድርጅት ተኝተው ታክመዋል	1.አዎ	
		2. የለም	
126	ለተ.ቁ 125 መለስዎ አዎ ከሆነ ምን ያህልየተኙቶየህክምና አገልግሎት አግኝተዋል	1. አንድ ጊዜ 4. አራት ጊዜ 2. ሁለት ጊዜ 5. አምስት ጊዜ 3. ሶስት ጊዜ 6. ስድስት እና ከዚያ በላይ	
127	ለሆስፒታል ጉብኝት ምክንያቶች ምንድን ናቸው ?	1. አጠቃላይ የአካል ምርመራ 3. በህመም ምክኒያት 2 .ለምክር አገልግሎት 4. በቀጠሮ ምክንያት	
128	በህመም ጊዜ ወደ ጤና ድርጅት የማይሄዱ ከሆነ የማየሄዱበትን ዋና ምክንያት ይግለጹት	1. የጤና ድርጅቱ እርቀት 5. የግንዛቤ ማነስ 2.አራስን በራስ ማከም 6.የገንዘብ እጥረት 3. የተሟላአገልግሎት አለማግኘት	

		4. ህመሙ የሻለኛል ብሎ በማስብ	
129	አብዛሀኛን ጊዜ የጤና አገልግሎት ለማግኘት የሚሄዱት የት ነው ?	1. መንግስት ሆስፒታል 3. ጤና ጣቢያ 2. ከግል ክሊኒክ 4. ከግል ሆስፒታል	
130	የህክምና ዘገልግሎት ለማግኘጽ የርስዎ ምርጫ የቱ ነው ?	1. ዘመናዊ የጤና አገልግሎቶች 2. ባህላዊ መድሃኒት ሰጭዎች 3. በቤት ውስጥ የተዘጋጀ መድሃኒት 4. ጠበል 5. ሌላ ካለ ይግለፁ----------	
131	ሥር የሰደደ ወይም የቆዬ የበሽታ ታሪክ አለዎት	1. አዎ 2. የለም	
132	ለተ.ቁ. 131 መልስዎ አዎ ከሆነ የታወቁ የበሽታ አይነቶች ምንድን ናቸው ?	1. የደም ግፊት 5. አርትራይተስ 2. የልብ ችግር 6. አስም 3. የዓይን ሞራ ግርዶሽ 7. የስኳር በሽታ 4. ስትሮክ 8. ሌላ	
133	በመጨረሻዎቹ ሰለሳ ቀናት ውስጥ እቃ ለማንሳት ችግር አጋጥመዎታል ?	1. አዎ 2. የለም	
134	20 ሜትር ያህል ርቀት ላይ ያለውን ነገር ለማየት እና ለይቶ ለማወቅ ይቸገራሉ?	1. አዎ 2. የለም	
135	የህመም ስሜት አለዎት ?	1. አዎ 2. የለም	
136	መልስዎ አዎ ከሆነ የህመሙን ድግግሞሽ እንዴት ይገልጹታል ?	1.በየቀኑ 2. በየሳምንቱ 3. በየወሩ	
137	በህመም ጊዜ አገልግሎት/ እክብካቤ የሚሰትዎ ማን ንው ?	1. ሚስት/ ባል 3. ልጅ 2. ሰራተኛ 4. የለም	