PREVALENCE AND ASSOCIATED FACTORSOF ANXIETY AMONG PATIENTS WITH CHRONICNON-COMMUNICABLE DISEASES ON FOLLOW UP AT JIMMA MEDICAL CENTER, JIMMA, SOUTHWEST ETHIOPIA, 2020

BY:MEGERSA DINKU (BSc N)

A THESIS SUBMITTED TO JIMMA UNIVERSITY, FACULTY OF HEALTH SCIENCES, SCHOOL OF NURSING AND MIDWIFERY IN PARTIAL FULFILLMENT FOR THE REQUIREMENT OF THEDEGREE OF MASTER OF SCIENCE IN ADULT HEALTH NURSING.

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JIMMA, ETHIOPIA

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BY: MEGERSA DINKU (BSc N)

NAME OF ADVISORS:1. PRO.SUSAN ANAND (MSN; Ph.D.)

2. EBRAHIM YIMAM (MSN; ASS'T PROF.)

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ABSTRACT

Background*: Anxiety is a common condition in any chronic disease. Anxiety symptoms may affect the patients' ability to control their condition, their quality of life, and their overall health levels.Despite this fact,limited research studies have been conductedin Ethiopia to address anxiety among patients with chronic diseases.*

Objective: *To assessthe prevalence of anxiety and associated factors among patients with chronic non-communicable diseases on follow up at Jimma Medical Center, Jimma, Southwest Ethiopia;2020.*

Methods:*An institutional-based cross-sectional study was conducted in Jimma Medical Centerfrom May11th to July 8th, 2020.A total of 411patients with chronic non-communicable diseases were included through a systematic sampling technique. Anxiety was assessed using Hospital Anxiety and Depression Scale, which is validated in Ethiopia.Data were collected using a pre-tested based structured questionnaire through face to face interview which was prepared originally in English and translated to Afan Oromo and Amharic language for data collection purposes. After data collection, the data were cleaned and presented with text, graphys and tables. Two data collectors and one supervisor were collect data after one-day intensive training.The collected data were entered into Epi-data and transported into statistical package for social science version 25 and bivariate was done to evaluate the relationship between single independent vs dependent variable those variable p-values<0.25 candidate for multivariate. In multivariate p<0.05 declared as statistical significance.*

Result:*The study revealed that the prevalence of anxiety was 29.9%. Being female*(AOR=2.38, 95%CI(1.61-5.52), presence of *co-morbid illness*(AOR=4.2, 95%CI (2.18-8.06)), *perceived illness not control*.(AOR=5.43, 95%CI (2.75-10.7) *and physical inactivity*(AOR=2.83, 95%CI(1.56-5.13)) *had a statistically significant association with anxiety with p-value <0.005*

Conclusion and Recommendation: *Prevalence of anxiety was high. Being female, perception that illness uncontrolled,presence of co-morbid illness, and physical inactivity were associated with anxiety. Health care professional should provide advice to patients about the importance of physical activities to prevent anxiety and patients with comorbidy illness and female patient should be screened for anxiety.*

Keywords: *chronic diseases, Anxiety, Diabetes mellitus, Hypertension, Asthma, COPD, cardiovascular disease, Epilepsy*

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ACRONYMS AND ABBREVIATIONS

AOR	Adjusted Odd Ratio
BSCN	Bachelor of Science in Nursing
COR	Crude Odd Ratio
CHD	Chronic Heart Disease
CHF	Chronic Heart Failure
COPD	Chronic Obstructive Pulmonary Disease
CRF	Chronic Renal Failure
CRD	Chronic Respiratory Disease
CVD	Cardiovascular Disease
DCM	Dilated Cardiomyopathy
EU	European Union
HADS	Hospital Anxiety and Depression Scale
IHD	Ischemic Heart Disease
JMC	Jimma Medical Center
NCD	Non-communicable disease
MSN	Masters of Science in Nursing
OCD	Obsessive-Compulsive Disorders
RHD	Rheumatic Heart Disease
PhD	Doctor of Philosophy
PRO	Professor
PTSD	Post-TraumaticStressDisorder
US	United States
WHO	World Health Organization

CHAPTER 1: INTRODUCTION

1.1. Background

Chronic non-communicable disease is a condition that is slow in progression, long in duration, and non-infectious and it often limits the function, productivity, and quality of life.It is characterized by uncertain etiology, multiple risk factors, and a prolonged, progressive disease course(1).

Chronic non-communicable diseases (NCDs) are the leading cause of death globally, and one of the major health challenges of the 21st century. It includes a large number of conditions, although the four major diseases namely cardiovascular diseases, cancer, diabetes, and chronic obstructive lung diseases cause over 80% of all NCD deaths (2,3).

A diagnosis ofa chronic non-communicable disease can induce anxiety. This may be due to symptoms of the disease itself, a complication of the disease and its management, leading to a sense of lack of control, loss of relationships, social isolation and uncertainty or hopelessness, and helplessness from poor prognosis; an increasing fear of death and side effect from treatment(4,5).

Anxiety is an uneasy feeling of discomfort, dread, apprehension, and unease, the cause of which can be specific or nonspecific(6). Its emotion prepares the individual to the environmental changes or helps to create a response to those changes(7).However, it becomes abnormal or pathological if it is out of proportion to the situation that is creating it and interferes with social, occupational, or other important areas of functioning. Anxiety disorder is amongst the most common psychiatric disorders in all over the world(8,9).

Anxiety may be developed among patients diagnosed with different types of Chronic non-communicable diseasebecause individuals perceive that the disease will bring undesirable lifestyle changes, cause them to lose control over their health, and lead to disease-related complications. Anxiety has both health and harmful aspects depending on its degree and duration as well as on how well the person copes with it. Based on the severity of the perceived threat and how successful the individual in coping and adaptation with the threat anxiety is divided into four types mild, moderate, severe and panic.(8)

1.2. Statement of the problem

An estimated 792 million people were living with mental health disorders in 2017,with 4% of them suffering from anxiety disorders(10).World Health Organization (WHO) estimated in 2016 that 39% of the Ethiopian population was dying from non-communicable diseases, with a cardiovascular disease prevalence of 16%, diabetes mellitus and chronic obstructive pulmonary disease prevalence of 2% each, and cancer prevalence of 7% and 12% of other NCDs(2).

Anxiety is more common in people with chronic diseases than in the general population.Patients with chronic diseases are at a higher risk for psychological distress.Non-communicable disease and mental disorders often occur simultaneously particularly with anxiety disorders(11–13).

Anxiety symptoms are associated with an increased risk of different chronic physical diseases such as heart disease, stroke, hypertension, diabetes mellitus, asthma, chronic lung disease and epilepsy. The association between anxiety symptoms and disorders in the context of general medical illness may be a pathophysiologic consequence of the medical illness, a psychologic response to the experience of having a medical illness, a side effect of medication, or merely a chance of occurrence(14).

For instance, anxiety may developed in patient with epilepsy due to being diagnosed withepilepsy, fear of having seizure, a side effect of antiepelipetic medication and social rejection due to their condition(15).

A systematic review and meta-analysis study reported that anxiety and depression were common among patients with chronic illness in both developed and developing countries(16)A review of anxiety disorders, hypertension, and cardiovascular risk indicated that hypertensive patients develop anxiety more likely(17)

Untreated anxiety symptoms may affect the patients' ability to control their condition, their quality of life, their work productivity, and their overall health levels as well as their compliance with medical instructions and treatments(18).Psychological and behavioral treatments are effective to improve quality of life (18). The presence of undiagnosed anxiety among patients with CND was causing concern of it prevents initiation of treatment for theses accompanying conditions and allows frustration to build up in patients, thereby contributing to poor clinical

outcomes. Early identification of the problem and solving the underlying cause improve morbidity comes due to anxiety.

The epidemiological studies done by Pan et al in 2015 on the association between anxiety and hypertension found a significant association between anxiety and hypertension(19). Awareness of the presence and severity of psychiatric disorders in patients with CND encourages them to take the necessary measures for treatment. Psychiatric symptoms negatively influence disease severity and quality of life of the patients(20).

Living with a chronic illness can be an overwhelming challenge. It is often accompanied by fear, frustration, and isolation, and demoralizing and puts the person at an increased risk of anxiety. Undiagnosed anxiety declines the quality of life and triggers other mental disorders. Identification of undiagnosed anxiety and treatment of these conditions becomes important to improve mental and wellbeing, quality of life and as a result, decrease morbidity and death risk.

Even though chronic disease are becoming prevalent in developing and non-developingcountries, specifically, in Ethiopia,limited research studies havebeen conducted to address anxiety among patients with chronic non-communicable disease and Previous studies were done in Ethiopiaon anxiety among patients with hypertension(21), diabetes mellitus (22), and epilepsy(23). However, no studies were done on asthma and cardiovascular diseases like chronic heart failure, myocardial infarction, and dilated cardiomyopathy.

None of these studies jointly addressed anxiety among patients with chronic non-communicable medical illnesses and In addition to this, no study was done on CVD and asthma; not considered of medication adherence and patient perception of disease under controlled.Therefore, this study aims to assess the prevalence and associated factors of anxiety among patients with chronic non-communicable diseases on follow up at Jimma Medical Center.

1.3. Significance of the study

This study was conducted to assess the prevalence and associated factors of anxiety among chronic non-communicable disease patients at Jimma Medical Center.

The findings from this study can improve awareness of anxiety among patients with chronic illnesses;can help physicians and nurses working in the chronic illness departments (in-patient as well as an outpatient) to assess the psychological needs and educate patient and family on lifestyle adaptation and prevent further mental disorders and prevent further deterioration of physical health.

The findings of this study might also help to provide input for researchers who want to conduct further study on a similar topic.

Finally, it could support the patients and their families in encouraging early recognizing, screening, and managing anxiety symptoms in NCD patients. It is further intended to expand the existing literature on anxiety and its predictors among patients with chronic disease.

CHAPTER 2: LITERATURE REVIEW

This section presented a review of previous research on the prevalence and predictors ofanxiety among chronic non-communicable patients. The review started with prevalence anxiety among patients with chronic disease, hypertension, diabetes mellitus, epilepsy, COPD, and asthma and its associated factors. Then, a conceptual framework that showed the relationship of the study variables werepresented.

2.1. Prevalence of anxiety among patients with chronic non-communicable diseases

A cross-sectional study conducted among 301 patients with chronic disease in Turkey, Sakarya university hospital found that the anxiety rate was 52.2% in all patients. The study revealed that the highest anxiety score was among patients with chronic respiratory disease (CRD) (66.6%), followed by chronic heart disease (CHD) (46.6%)condition(24).

Another cross-sectional study done in the department of medicine units of CMCH, Bangladesh showed that among 100 chronically ill patients with different health problems 22% of patients had anxiety. The study showed that the highest anxiety score was among patients with cardiovascular 6(12%), respiratory 16(32%), gastrointestinal (28%), and neurological 6(12%) disease conditions (13).

A community-based cross-sectional study conducted on multimorbidity, the demographic characteristics of adults aged 30 years, and above in Karachi, Pakistan, showed that the overall prevalence of anxiety and depressive symptoms was 27.4%. Participants who had multimorbidity had 33% increased odds of being anxious and depressed (adjusted OR (AOR)=1.33, 95%CI 1.11 to 1.58), as compared with those who did not report multimorbidity(25).

According to a cross-sectional survey conducted on different chronic diseases in the three Southeast Asian countries (Cambodia, Myanmar, and Vietnam) found that the prevalence of anxiety disorder was 17.0%. Among the chronic disease conditions, patients with cancer (47.8%) had the highest rate of anxiety features, followed by kidney disease (27%), CVD (22%), diabetes (18.5%), COPD (17.8%), hypertension (15.6%), and asthma 14%(26).A cross-sectional study done in southern Brazil among hospital admitted patients showed that the prevalence of anxiety was 33.7%(27).

2.2. Prevalence of anxiety among patients with diabetes mellitus

According to different worldwide kinds of literature, themagnitude of anxiety disorder among diabetes patients had a varied figure. Among these studies, a study done in Pakistan among 889 adult patients with DM types 2 showed that the overall prevalence of anxiety was 57.9% (95% CI = 54.7%, 61.2%)(28).

Other similar cross-sectional study conducted in Tehran among 184 patients found that the prevalence of anxiety among diabetes mellitus was 69.6%.Among them, 37%, 13.6%, and 13% of patients respectively suffered from mild, moderate, and severe anxiety(29).A community-based cross-sectional study done in Xuzhou China among adults with type 2 diabetes participants, showed that the prevalence of anxiety was 43.1%(30).

A cross-sectional study done in Alkhobar city, the kingdom of Saudi Arabia showed that the high prevalence of mental disorders (depression and/or anxiety) among chronically ill patients (diabetic and/or hypertensive) was 57.3%. Anxiety comprised 38.4% (25.1% mild, 8.8% moderate, 4.4% severe)(31). Another similar cross-sectional study conducted among 450 participants in Saudi Arabia among patients with type II diabetesshowed that the prevalence of anxiety among diabetes patients was 38.3%(32).A cross-sectional study done by Ahmad et al among adult patients with diabetic foot in Jordan showed that the prevalence of anxiety was 37.7%(33).

According to a cross-sectional study done in Guinea, the prevalence of anxiety among patients with diabetes was 58.7%. The prevalence of marked anxiety was 27.5%, and it is more common in women (36.1%) than in men (13.1%)(34).

2.3. Prevalence of anxiety among patients with chronic respiratory disease

According to a cross-sectional study done in Malaysia among patients with asthmatic showed that the prevalence of mild anxiety, moderate anxiety, and severe anxiety was 71.3%, 24.3%, and 4.4% of the patients respectively. Those patients aged ≥50 years had on average 1.4 higher anxiety scores in comparison to patients aged less than 30 years(35).

Another similar study conducted among patients attending the severe asthma clinic at North Manchester General Hospital revealed that the prevalence was anxiety 49%. Among those 33% had scores falling in the moderate-severe range for anxiety(36).

An observational study done by Pascal et alamong COPD patients in Iasi, Romania showed that the prevalence of anxiety was 40% had mild anxiety, 30% moderate anxiety, and 13.3% severe anxiety(37).

A cross-sectional study done in 2015 on Italy asthma patients found a 36.9% of rate of anxiety, Patients with abnormal HADS anxiety scores had significantly ($P < .001$) lower ACT scores than patients with normal HADS anxiety scores (18.3 (4.5) vs 20.9 (4.0))(38).

A case-control study done in three Saudi Arabia among asthma and COPD patients showed that the prevalence of anxiety was higher in asthma and COPD groups (28%, 22% for anxiety) in comparison to the normal population in the control group (16.7%).The anxiety score was higher in the asthma group than the COPD group and it is more common in females than males(39).

According to a cross-sectional study conducted over one year on a sample of 258 Egyptian patients with chronic breathing disorders (Bronchial asthma, chronic obstructive pulmonary disease, and diffuse parenchymatous lung diseases) revealed that 62.0 % of them had psychiatric disorders. Among those with psychiatric disorders, 43.8% of cases had mixed anxiety-depression disorders, 16.3% of cases had depression, and 1.9% of cases had anxiety(40).

A comparative cross-sectional study conducted in Jimma University Specialized Hospital, Ethiopia showed that the prevalence of anxiety among COPD patients was 49.2%. COPD patients were 4.3 times more likely to develop anxiety than that of controls(41).

2.4. Prevalence of anxiety among patients with cardiovascular disease

According to a cross-sectional study done among hypertensive outpatients in Afghanistan on 234 patients, the prevalence of anxiety was 42.3%(42).

The hospital-based cross-sectional study involving 400 hypertensive patients conducted in two tertiary hospitals in Ghana showed that the prevalence of anxiety symptoms was 57 %(43).Other similar cross-sectional studies done among hypertensive patients in Addis Ababa, Ethiopia found that the prevalence of anxiety was 28.5%(21).

According to a study done in Nepal on patients with coronary artery disease showed that 27.4% of the respondents had anxiety and 19.6% had borderline anxiety. Study shows a higher level of anxiety (42.4%) found in female than male patients(44).

A cross-sectional study done among1053 patients with a confirmed cardiac diagnosis in Palestine found that the prevalence of anxiety was 53.1%. In addition, 46.9% of patients did not report any anxiety, while 33.9% reported mild-to-moderate anxiety and 19.2% reported severe-to-very severe anxiety symptoms. The study revealed that anxiety symptoms were more frequent among females and those with a lower educational level (45).

2.5. Prevalence of anxiety among epilepsy

A meta-analysis study conducted in 2017 among patients with epilepsy inthe International League Against Epilepsy [ILAE] regionsshowed that the pooled prevalence of anxiety disorders was 20.2%. The study showed that the most commonly observed pooled prevalence of was 10.2%, 5.3%, 2.8%,2.5%,and 1.3% for generalized anxiety disorders, social phobia, agoraphobia, panic disorder, and specific phobia respectively. Age of onset, illness duration and prevalence of antiepileptic drug polytherapy were all non-significant(46).

Another meta-analysis study done among outpatient clinics of epilepsy in tertiary care hospitals showed that the pooled prevalence of any anxiety disorders was 26.1%. An overall estimated prevalence of generalized anxiety disorders was 18.2%, for Agoraphobia was 12.5%, the specific phobia was 8.6% and for panic disorder was 6.7%(47).

A cross-sectional study conducted in 2018 at Columbia comprehensive epilepsy center on ‘common and independently associated with clinical features of epilepsy’ shows that the prevalence of high anxiety score in the entire population was 46.1%.Lower education, non-white race/ethnicity, prior head trauma, anti-seizure polytherapy, and left focus or bilateral foci were associated with high anxiety(48).

A study conducted in the Pakistan outpatient department of neurology indicated that the prevalence of anxiety was 48%. It was associated with poor socioeconomic status, lack of education, being unmarried, female, and unemployment(49).

A cross-sectional study conducted in West China on prevalence and risk factor of anxiety’ among epileptic patients showed that 33.4% have anxiety disorders and seizure frequency of anxiety, the annual income of the patient, and social support were independent factors. But no association between the education status of the patients(50).

A study conducted on 'psychiatric comorbidity in Africa patients with epilepsy's' experience of Sierra Leone female gender, poorly controlled seizures, and self-reported antiepileptic medication side effects are significant determinants of the presence of psychiatric comorbidity(51).

Cross-sectional study conducted in the west Shewa zone, Ethiopia revealed that the prevalence of anxiety was 47.8% among patients with epilepsy and educational status, no formal education and grade 1-8th,age, stress, and patients with perceived stigma were associated with anxiety(23).

Another cross-sectional study done in Ethiopia among epileptic people at Amanuel Specialized Mental Hospital showed that the prevalence of anxiety symptoms was 33.5% and monthly income, frequency of seizure, a side effect of anticonvulsants, marital status(being divorced/widowed), low educational status and economic status were associated factors(52)

2.6. Associated factors of anxiety among patients with chronic non-communicable disease

A study conducted on different chronic diseases (chronic respiratory disease (asthma and COPD), chronic heart disease, chronic renal failure, diabetes mellitus, hypertension) in the different countries shows that anxiety was associated with gender. According to study done in Southeast Asian, Bangladesh, Tehran, China, Saudi Arabia, Afghanistan, Guinea, Nepal, Palestine, Ethiopia countries, being of the female sex, (25–31) was associated with anxiety. However, other cross-sectional studies done among patients with chronic disease in Turkey found that no difference was found in terms of gender with anxiety(24).

Other study conducted by different author stated that anxiety among different chronic disease associated with age of the patient (27,32,36,53) occupational status(26,36,42)income(30,31,54) and educational status of the patient(21,25,29,41).A Similar study on anxiety among different chronic diseases revealed that the presence of more than two chronic conditions (comorbidity) as predictors of anxiety(21,25–27,30,32,42,55) In additions to those variable like social support (21,45)duration of disease after diagnosis with chronic disease (32) and family history of having a chronic disease (31,32) were predictors of anxiety.

According to a study done on ‘anxiety and depression among hypertension outpatients in Afghanistan showed the body mass index and smoking status has a positive association(42). Other studies showed that smoking status, alcohol use, and physical activity(31) were positive associations with anxiety symptoms(45). Other Study shows that patients perception of chronic disease control was associated with the presence of anxiety(31). A study done in China and portugal showed that anxiety symptoms were related to body mass index and adherence totreatment(30,56)

Summary

In general,a different study was done among different types of diseases (diabetes mellitus, hypertension, epilepsy, asthma, COPD, and cardiac disease)related to anxiety among those diseases showed that different figure and associated factors. Sociodemographic characters, clinical and disease-related factors, behavioral factors were some factors associated with those diseases.

Conceptual framework

This conceptual framework was developed after reviewing different literature done on diabetes mellitus, hypertension, asthma, COPD, epilepsy, and CVD (21,22,26,28,52)

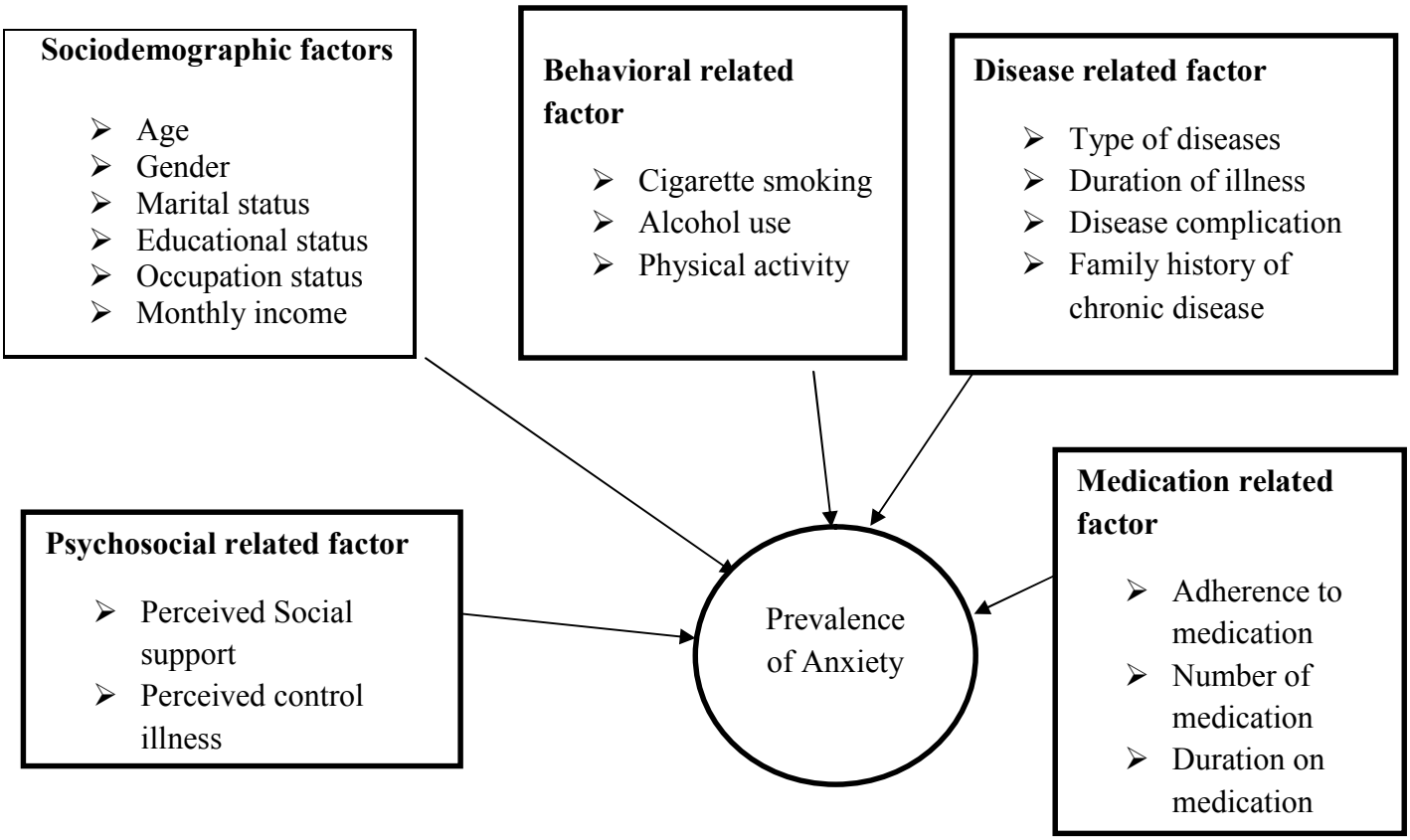

Figure 1: conceptual framework for the study on prevalence and associated factors of anxiety among patient with chronic disease patients visiting chronic clinic follow up at JMC, 2020

CHAPTER 3: OBJECTIVES

3.1 General objective

- To assess the prevalence of anxiety andassociated factors among patients with medical chronic non-communicable diseases at Jimma Medical Center, Ethiopia, 2020

3.2 Specific objectives

- To describe the prevalence of anxiety among patients with chronic non-communicable disease at Jimma Medical Center, Ethiopia, 2020
- To identifyassociated factors of anxiety among patients with chronic non-communicable disease at Jimma Medical Center, Ethiopia, 2020

CHAPTER 4: METHOD AND MATERIALS

4.1. Study area and period

The study was conducted at Jimma Medical Center. It is located in Jimma town approximately 352 km Southwest of Addis Ababa. Jimma Medical center is the only teaching hospital in the southwestern region of Ethiopia. Being a well-established referral hospital, it caters to the diverse health needs of an estimated 15-20 million population living in that area. This 800-bedded hospital is equipped with physical infrastructural facilities such as intensive care units, advanced medical and surgical care equipment thatis made operational by approximately 1600 hospital staff. The chronic illness outpatient department of the hospital serves patients with specific chronic diseases. This unit is staffed with10 permanent nurses and other senior residents and interns who have been posted on a short-term basis.The clinic provides servicesfor cardiovascular diseases (RHD, CHF, IHD, and DCM),hypertension, respiratory diseases (COPD and asthma), diabetes, epilepsy, and other neurological diseases. The study wasconducted from May11th to July 8th, 2020.

4.2. Study design

An Institutional based, cross-sectional design was employed.

4.3. Population

4.3.1. Source population

All people living with the medical chronic non-communicable disease, visiting chronic illness at Jimma Medical Center.

4.3.2. Study population

All the selected patients with medical chronic non-communicable diseases, on follow upat the chronic illness OPD, fulfilling the eligibility criteria.

4.3.3. Study subject

Each person living with medical chronic non-communicable disease visiting chronic illness follow up clinic at Jimma Medical Center from whom actual data were collected.

4.4. Eligibility (inclusion and Exclusion) Criteria

4.4.1. Inclusion criteria

Study was included

- Patients with chronic medical non-communicable diseasessuch as hypertension, diabetes mellitus, cardiovascular disease, COPD, asthma, and epilepsy.
- ≥18 years of age,
- Those who have a followup on chronic illness during the data collection period
- Capable of independent communication and giving informed verbal consent

4.4.2. Exclusion criteria

Those patients were excluded from the study

- Patients with known psychiatric disorders
- Patients diagnosed with non-communicable medical illnesses in the last three monthsbefore the study.

4.5. Sample size determination

The sample size for this cross-sectional study was determined using the single population proportion formula by considering the following assumption, 95% of confidence level, 0.05 margin of error, 0.478 proportion of anxiety among people with epilepsy conducted in west ShewaZone by Takele T, et al..(23)

$$\text{ni} = \frac{\left(\frac{\text{Z}\alpha}{2}\right)^2 \text{P}(1-\text{P})}{\text{d2}} \quad ni = \frac{(1.96)2*0.478(\mathbf{1-0.478})}{(0.05)2} = 383$$

Where:

- n_i =the initial sample size required
- P= 0.478 assumed prevalence of anxiety among People with Epilepsy
- d= degree of accuracy (0.05)
- Zα/2- critical value which is assumed 95% CI

Then considering 10% non-response rate the final sample size was 421

4.6. Sampling technique

A stratified sampling techniquewas applied to represent all patients diagnosed with six different chronic diseases. From the chronic illness outpatient department of JMC, 6 types of (hypertension, diabetes mellitus, cardiovascular disease, and COPD, asthma, and epilepsy) chronic NCD were selected using the lottery method. The list of potential participants was obtained from the administration office chronic illness outpatient department together with the medical card numbers. The average number of patients visiting the chronic clinic follow upwithintwo months were identified as 1200, 1220, 1200,200, 150, and 1100for hypertension, diabetes mellitus, cardiovascular disease, and COPD, asthma, and epilepsy respectively. Accordingly, the calculated sample size was allocated proportionally for the six chronic non-communicable diseases and hence 100,101,100, 12,17, and 91for hypertension, diabetes mellitus, cardiovascular disease,COPD,asthma, and epilepsy respectively, which made the total sample size of 421.

A systematic random sampling technique was usedto select the actual study units.Sampling interval was determined to be every 12^{th}patients, which was calculated by dividing the total study population (5070)who had to follow up during eight weeks of data collections period by the required sample size (421).

The first patient was selected randomly from the first twelve using lottery methods in the logbook and data collectors choose the next respondent at regular intervals (every 12th). Repeat visit was avoided by taking the patient's card number and asking them if they were interviewed.

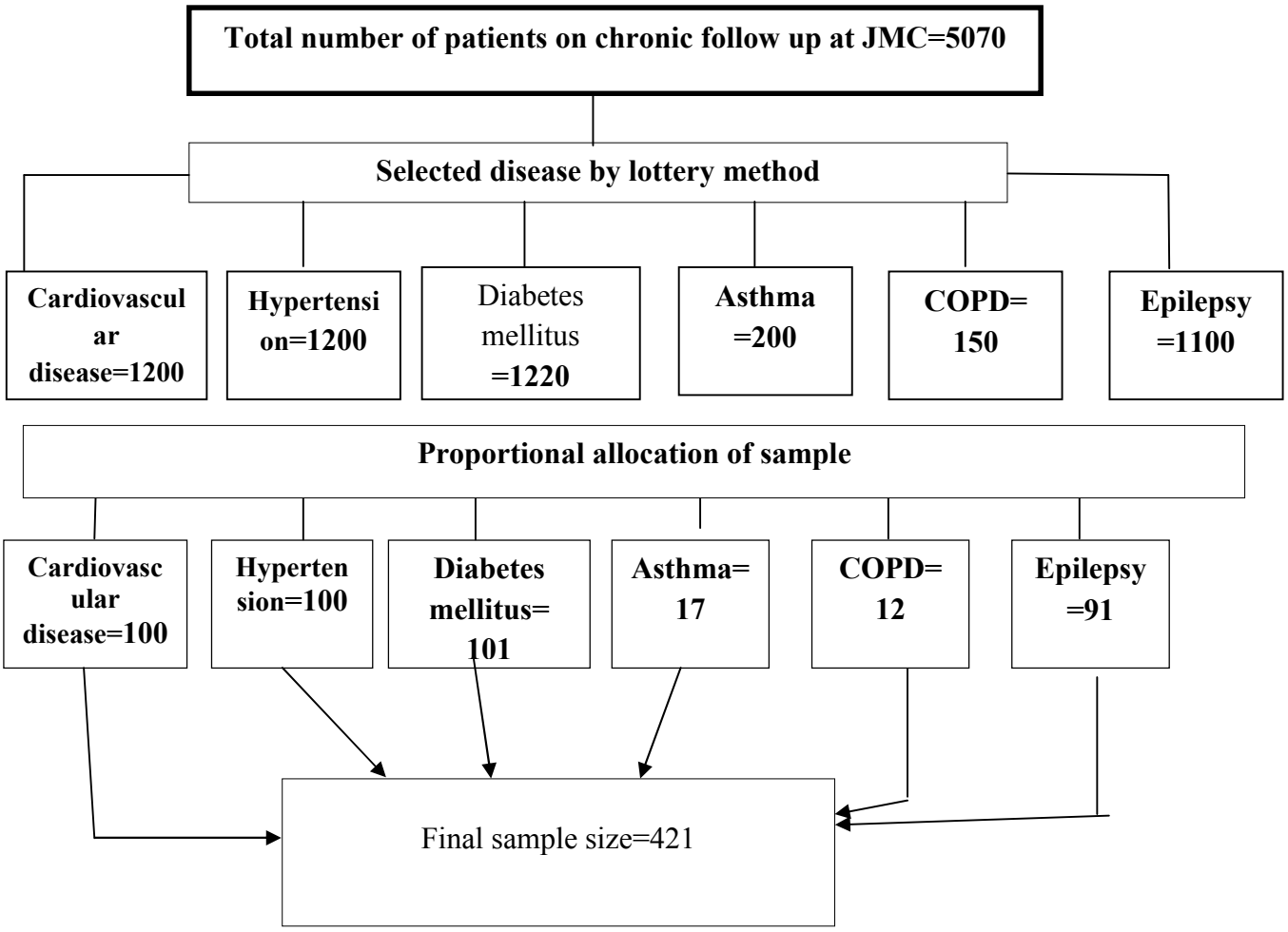

Figure 2: Schematic illustration of the sampling procedure

4.7.Data Collection Tool and Procedures

4.7.1. Data collection tool/instruments

The data were collected using a structured questionnaire, which is adapted from previous research. The questionnaire includedsocio-demographic characteristics, disease related factors,behavioral related factors, psychosocial,and medication-related factors of study participants.

Social support: The Oslo 3 items social support scale was utilized to collect social support related issues. Oslo's three items of social support scale (OSS-3) provides a brief measure of social support and functioning. The total scorewas calculated by adding up the raw scores for each item. The sum of the raw scores has a range from 3-14.A scoring ranging between 3 to 8 is classified as poor social support, a score between 9 to 11 as moderate support, and a score between 12-14 as strong support (57).In this study, the Cronbach alpha was 0.76

Anxiety: the presence of anxiety was collected by Hospital Anxiety & Depression Scale (HADS-A). Anxiety subscale (HADS-A) is a 7-item questionnaire used to screen for manifestations of anxiety. The patient on a 4 point (0-3) scale answered each item, so the totalscore ranged from zero to 21 for anxiety subscale. It was approved for local use in Ethiopia (Amharic version), and its internal consistency was 0.78 for anxiety. The scales utilize a cut-off point for anxiety is ≥8, patients who score greater than or equal to eight have anxiety symptoms(58).

Adherence to medication:-it was measured using the Morisky medication adherence scale 8-item (MMAS-8)(59). Adherence was graded as High when the patient correctly answered 8 MMAS-8Medium when the patients correctly answered between 6 and 8 MMAS-8low when they answer less than 6 MMAS-8. For this study patient not adhere to MMAS-8 when patients answered <6 and adherent to a medication when answered ≥6 of MMS-8 items, in this study the Cronbach alpha was 0.78

Patient perception of disease control: yes or no response question was asked whether they think their disease was controlled or not.(31)

4.7.2. Data Collectors and Data Collection Procedure

Data were collected using a structured questionnaire through a face-to-face interview. All the questions were prepared originally in English language, then translated into Amharic & Afan

Oromo language for data collection purposes by experts, and then back to English by other translators to maintain its consistency of meaning.

Two BSc nurses who were not working in the chronic illness unit were selected as data collectors and were supervised by one BSc nurse.The data were gathered from selected NCD patients by selecting them systematically after asking them for their willingness and obtained informed verbal consent.The presence of comorbid chronic illness and complication of disease was assessed by structured questionnaires and extracted from the patient charts after informed consent.

4.8. Study variables

4.8.1. Independent Variables

Sociodemographic factors: Gender, age, marital status, educational level, occupational status, monthly income, religions

Disease-related factors: Types of disease, duration of disease, presence of complication, comorbidity of disease and family history of chronic disease

Behavioral related factor: Physical activity, smoking status, and alcohol use

Psychosocial factor: Perceived Social support and perceived disease control

Medication-related factor: Adherence to medication, duration on treatment and number of medication

4.8.2. Dependent variables

- Prevalence of Anxiety

4.9. Operational definitions

Anxiety: those patients with HADs-A score for anxiety equal to 8 and above was considered having the problem. Those who have anxiety was coded as 1 and those who have no anxiety coded as zero

Chronic non-communicable disease: in this study, it refers to only the chronic non-communicable diseases such as CVDs, CRD, hypertension, epilepsy and Diabetes mellitus

Cardiovascular diseases (CVDs):In this study, it includes, congestiveheart diseases, Ischemic heart disease, myocardial infarction, acute coronary syndrome, angina pectoris, valvular heart disease, rheumatic heart disease, and cardiomyopathy.

Chronic respiratory diseases (CRDs): are diseases of the airways and other structures of the lung. Includes chronic obstructive pulmonary disease (COPD) and asthma

Social support: For this study, social support is measured using Oslo 3-items social support scale and score of 3-8 is poor support, 9-11 is moderate support and 12-14 is strong support

Patient perception of disease control: was defined as perceived disease control when the patient answer yes to the question "do you think your disease was under control?"

Medication adherence: was measured by using Morisky's medication adherence scale. For this study, patients were considered as non-adherent to their medications when the MMAS-8 score was less than 6 and adherence was considered when the patients MMAS-8 score was ≥6

Physical activity: was defined as "physically active" if a person report was doing at least 30 minutesat least one activity, such as brisk walk between three and more times per week

4.10. Data quality control

Both data collectors and supervisors were trained for one day by theprincipal investigator before actual data collection. The purpose of the training was to ensure that all the data collectors had the same information about the study and followed the same interview procedures. The supervisor did daily close supervision and each filled questionnaire was checked daily for completeness and consistency.

The questionnaire was translated to Afan Oromo and Amharic language and then back into English by another person to check for consistency.The questionnaire was pre-tested on (21)5 % of the sample size, one week before data collection at Agero Hospital, which not included in the analysis of real study to address confusing items and to increase the quality of data.

The data collection instrument was assessed for completeness, consistency, and applicability and werechecked accordingly such as sequences, relevancy, clarity, or repeated ideas. During the pretest, some respondents were confused about the duration of anxiety questions. To address this

confusing issue, data collectors tried to remind the duration in each section of the questionnaire at the time of data collection.

4.11. **Data Processing and Analysis**

Data were checked for completeness and consistency. Then it entered into Epi Data version 3.0 software and then was exported to Statistical Package for Social Science (SPSS) software version 25.0.for analysis.

Descriptive statisticsof the different variable were determined and the results were presented in texts, tables and graphs using summary measures such as the frequencies, percentages, mean, and standard deviation as appropriate

Bivariate logistic regression was carried out to identify the associated factors with anxiety. All variableswith p-value ≤0.25 were taken into consideration in the multivariable model to control for all possible confounders and the variables were selected by the backward method to see the effect of each variable on the outcome variables. The test of model fit was checked by Hosmer-Lemeshow goodness of fit, which showed that the model adequately describes the data (p=0.5) and the cox and snell R square was also 0.53 Finally, the results of multivariate logistic regression analysis were presented in crude and adjusted odds ratios with 95% confidence interval. Level of statistical significance was declared at p-value <0.05

4.12. Ethical consideration

Ethical clearance was obtained from the Institutional Review Board (IRB) ofJimma UniversityInstitute of Health. The supportive letter wasobtained from Jimma University to Jimma Medical Center and permission for data collection was sought with a formal letter from the chief executive director of JMC, then a letter of cooperation was sent to the department of a chronic illness. After getting permission from the hospital to participate in the study, verbal consent obtained fromeach study participant. Study participants were provided with information about the objectives and purpose of the study before participation in the study. Patient privacy was maintained by interviewing in a private place and anonymity of responses in the interview.Privacy and confidentiality were maintained at all stages of the study.

The interviewers wore protective facemasks. Reasonable physical distance was kept between the involved individuals during data collection.

Participants were assured that if they wish to refuse to participate their care or dignity will not be compromised in any way since there was no relationship between participation and health care or treatment services in the hospital. They wereno special or additional treatment would be given to the patients selected/participating in the study but those who scored high on the HADS case would be referred to psychiatry clinics for further investigations after discussing with nurse staff on duty.

4.13. Dissemination of Results

Finally, the findings of the study will bepresented in open defense and submitted to Jimma University Faculty of Health Science, School of Nursing and Midwifery as well as JMC chronic follow up unit.

Efforts will be also made to publish in peer-reviewed journals and will be presented in different national and international conferences and seminars.

CHAPTER 5: RESULT

5.1. Socio-demographic characteristics of respondents

A total of 411 participants were recruited for the study whichmakes the response rate of 97%. The mean age of the respondents was 44.23 (SD=14.83) years. Among the total respondents, more than half(54.5%)were female by sex, 240(58.4%) were Muslim by religions. The majority of the respondents were Oromo (67.9%) by ethnicity. Most of the respondents (77.13%) were married by marital status, 161 (39.2%) were farmers by occupation,141 (34.3%) attended primary education. Regarding the average monthly income of the participants, 182 (44.3%) has a monthly income of less than 500 Ethiopian birrs(Table1).

Table 1:Socio-demographic characteristics of respondents attending chronic follow up units of JMC, Jimma, Ethiopia, 2020(n=411)

Variables	Categories	Frequency	Percent
Age in years	18-30	96	23.4
	31-40	81	19.7
	41-50	99	24.1
	51-60	77	18.7
	61-70	58	14.1
Sex	Male	187	45.5
	Female	224	54.5
Religion	Muslim	240	58.4
	Orthodox	123	29.9
	Protestant	42	10.2
	Catholic	6	1.5
Ethnicity	Oromo	279	67.9
	Amhara	73	17.8
	Kaffa	16	3.9
	Dawero	13	3.2
	Others*	30	7.2
Marital status	Single	68	16.54
	Married	317	77.13
	Divorced	15	3.65
	Widowed	11	2.68
Educational level	Can't read and write	112	27.3
	Read and write only	48	11.7
	Primary (1-8)	141	34.3
	Secondary (9-12)	68	16.5
	College/university	42	10.2
Occupational status	Governmental employee	62	15.0
	Private employee	22	5.4
	Farmer	161	39.2

	Non-employed	50	12.2
	Student	21	5.1
	Merchant	44	10.7
	Housewife	30	7.3
	Others**	21	5.1
Monthly income	<500	182	44.3
	500-1200	123	29.9
	1201-2151	46	11.2
	>2151	60	14.6

*Tigre, Gurage, woliyitta, silte **retried, Drivers

5.2. Disease-related characteristics of the respondents

Regarding diseases diagnosed amongthe participants were Diabetes Mellitus 101(24.6%), Hypertension 97(23.6%), Epilepsy 88(21.4%), Cardiovascular disease 100(24.3%), Asthma 16(3.9%) and COPD 9(2.2%). Two hundred twenty-five (54.7%) of the respondents reported less than or equal to five years duration of their disease diagnosis, 24 (5.8%) of the study population had at least one chronic complication related to their diagnosis and 71 (17.3%) of the respondents had at least one other additional chronic disease (Table 2).

Table 2: Disease-related characteristics of respondents in chronic follow up units of JMC in Jimma Ethiopia, 2020 (n=411)

Variables	**Categories**	**Frequency**	**Percent**
Type of disease	1. Diabetes Mellitus	101	24.6
	2. Hypertension	97	23.6
	3. Epilepsy	88	21.4
	4. Cardiovascular disease	100	24.3
	5. Asthma	16	3.9
	6. COPD	9	2.2
Time since diagnosis	1. ≤5 year	225	54.74
	2. 6-11 year	123	29.94
	3. ≥11 year	63	15.32
The regularity of follow up	1. Every one month	199	48.4
	2. Every two month 0r more	212	51.6
Presence of complication	1. Yes	24	5.8
	2. No	387	94.2
Family history of chronic disease	1. Yes	80	19.5
	2. No	331	80.5
Comorbidities of disease	1. Yes	106	25.8
	2. No	305	74.2

5.3. Medication, psychosocial, and behavioral related factors among chronic non-communicable disease patients.

More than halfof study participants (54.74%) had been on treatment for at least the past five years.Regarding the number of medications 168(40.9%) were being treated with two types of medicationand 143(34.8%) were on three or more medications. Although only 64(15.6%) participants admitted to being non-adherent to medication, the majority of the respondents (84.4%) claimed to be adherent to their medications.

Out of the total 411 study subjects, 160(38.9 %) physically active by the time of this study conducted, and 251 (61.1%) had not performed physical activity at least once in the last week. Moreover, 16(3.9%) of the respondents reported having consumed alcohol in the last 3 months period, and 63 (15.3 %) had used alcohol at least once in their lifetime.

Three (0.7 %) of the respondents were current smokers. Among the total respondents, 42(10.2 %) had used tobacco products at least once in their lifetime. Regarding psychosocial related factor, 167(40.6%) of respondents perceived illness control and 146(35.5%) reported good social support.(Table 3)

Table 3: Description of Medication, psychosocial and Behavioral related factor among chronic non-communicable disease patients on chronic follow up units of JMC in Jimma Ethiopia, 2020 (n=411)

Variables	Categories	Frequency	Percent
Duration on treatment	1. ≤5 year	225	54.74
	2. 6-10 year	123	29.94
	3. ≥11 year	63	15.32
Number of medication	1. One	100	24.3
	2. Two	168	40.9
	3. Three or more	143	34.8
Adherence to medication	1. Adherent	347	84.4
	2. Nonadherent	64	15.6
Perceived of illness control	1. Yes	167	40.6
	2. NO	244	59.4
Perceived social support	1. Poor	80	19.5
	2. Moderate	185	45.0
	3. Good	146	35.5
Cigarette smoking	1. Never smoker	369	89.8
	2. Current smoker	3	0.7
	3. Past smoker	39	9.5
Alcohol use	1. Never used	348	84.7
	2. Current user	16	3.9
	3. Past user	63	15.3
Physical activity	1. Yes	160	38.9
	2. No	251	61.1

5.4. Prevalence of anxiety among chronic non-communicable disease patients

The overall prevalence of anxiety among chronic non-communicable disease patients was 29.9%. (Figure 3)

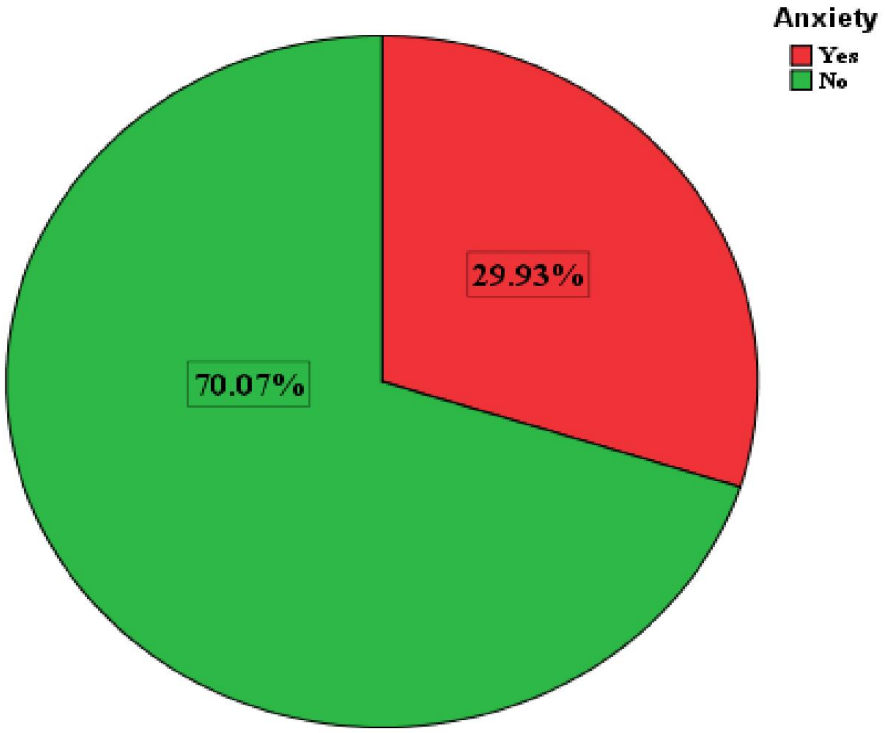

Figure 3: Prevalence of anxiety among chronic non-communicable disease patients on chronic follow up units of JMC in Jimma Ethiopia, 2020

Regarding prevalence of anxiety based on types of diseases;33(32.7%) among diabetes,29 (29.9%) hypertension, 29(33.0%) epilepsy, 25(25.0%) CVD, 4 (25.0%) Asthma and 3(33.3%) COPD(Figure 4)

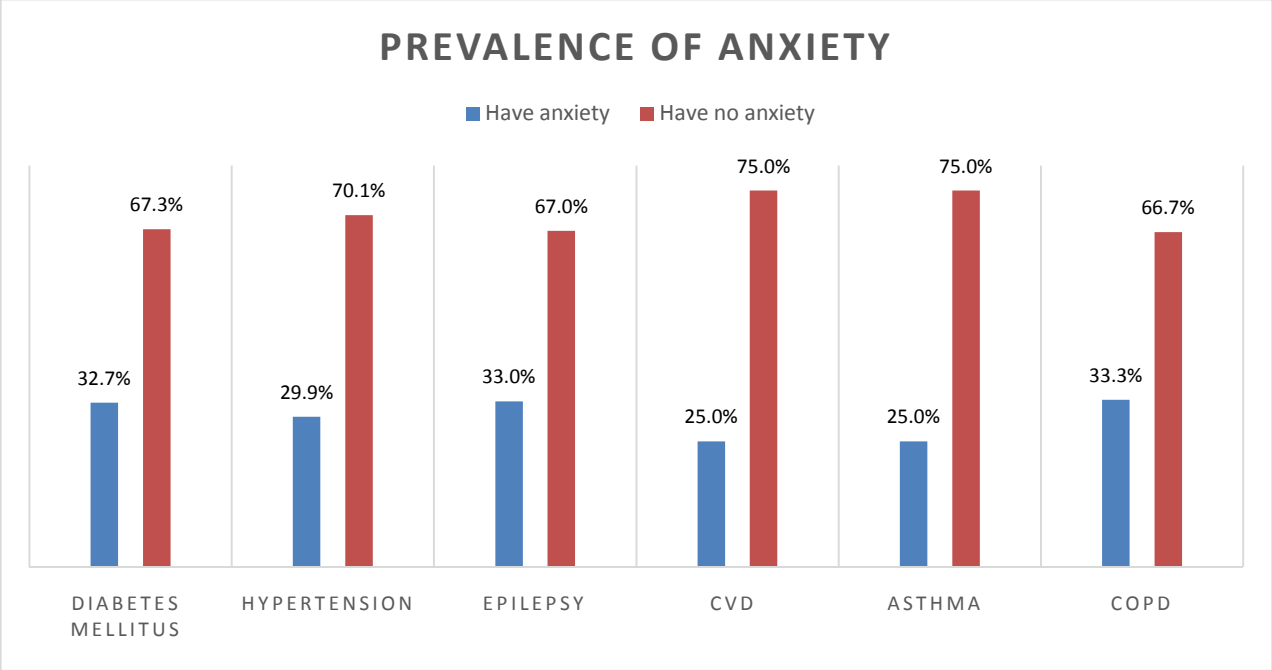

Figure 4: Distribution of anxiety based on types of diseases at JMC in Jimma Ethiopia, 2020(N=411)

5.5. Factors associated with anxiety among people with chronic non-communicable disease

Bi-variate was done to identify risk factors for multivariate; those variables less than p-value 0.25 were candidates for multivariate logistic regression. In bivariate analysis sex, physical activity, social support, medication adherence, occupational status, the regularity of follow up, perception of illness control, educational status, occupational status,family history of chronic disease, comorbidities of disease and perceived social support were a candidate for multivariate logistic regression to examine significantly association since the p-value less than 0.25.The results of multivariate logistic regression showed that sex, having comorbidities of disease, perceived illness control, physical activitywas significantly associated with anxiety.

The study showed that being females were 2.38 times (AOR=2.38, 95%CI(1.61-5.52) more likely to have anxiety as compared tomales. It was found that comorbidities of disease were significantly associated with anxiety. Having more than one chronic disease was four times more likely to have anxiety as compared to respondents with no comorbid diseases. (AOR=4.2, 95%CI [2.18-8.06])

Moreover, Patients who perceived loss of control over their illness were five times more likely to have anxiety unlike patients perceived to be in control of their illness.(AOR=5.43, 95%CI (2.75-10.7). Similarly, physically inactive patients were 2.83 more likely to have anxiety as compared to patients who physical active(AOR=2.83, 95%CI(1.56-5.13))

Table 4: Factors associated with Anxiety among chronic non-communicable disease (bivariate and multivariate analysis)(N=411)

Variable		**Anxiety**		**COR 95% CI**	**AOR 95% CI**
		Yes	No		
Sex	Male	41	146	Reference ***	Reference ***
	Female	82	142	2.056(1.324-3.194)	2.38(1.61-5.52)
Educational status	Can't read and write	21	47	0.22(0.88-0.57)*	
	Can read and write	32	30	0.94(0.37-0.24)***	
	Primary education	38	88	0.23(0.97-0.55)***	
	Secondary education	25	53	0.21(0.85-0.53)***	
	Diploma and above	7	70	Reference	
Occupational status	Gov't employee	17	45	Reference	
	Private employee	6	16	1.0(0.34-3.001)	
	Framer	47	114	0.92(0.48-1.76)	
	Non-employed	25	25	0.38(0.17-0.83)*	
	Student	3	18	2.27(0.59-8.69)	
	Merchant	20	24	0.45(0.20-1.02)	
	Housewife	1	29	10.96(1.38-86.83)*	
	Others**	4	17	1.61(0.47-5.46)	
Income	<500	52	130	0.50(0.24-1.06)*	
	500-1200	44	79	0.36(0.17-0.78)*	
	1201-2151	17	29	0.341(0.14-0.84)*	
	>2151	10	50	Reference	
The regularity of follow up	One	79	120	Reference	
	Two and more	44	168	2.51(1.62-3.89)***	
Family history of chronic disease	Yes	33	47	1.88(1.13-3.12)*	-
	No	90	241	Reference	
Comorbidities of disease	Yes	51	55	3.00(1.89-4.77)***	4.19(2.18-8.06)***
	No	72	233	Reference	Reference
Adherence to medication	Nonadherent	39	36	Reference*	
	Adherent	84	252	0.54(0.03-0.91)	
Perceived of illness control	Yes	20	147	5.37(3.16-9.14)***	5.43(2.75-10.7)***
	NO	103	141	Reference	Reference
Perceived social support	Poor	34	46	0.51(0.29-0.91)*	
	Moderate	40	106	1.05(.64-1.71)	
	Good	49	136	Reference	
Physical activity	Yes	66	94	2.39 (1.52-3.68)***	2.83(1.56-5.13)***
	No	57	194	Reference	Reference

*P-value is significant at P<0.25; **P-value is significant at P<0.005 and ***P-value is significant at P<0.001, AOR: Adjusted odd Ratio, CI: confidence interval

CHAPTER 6: DISCUSSION

This study aimed to assess the prevalence of anxiety and associated factors among people with a chronic non-communicable diseaseon follow up at Jimma Medical Center. Overall, the prevalence of anxiety was found to be 29.9 %.(95 % of CI, 25.4-34.3%). This indicates the need to pay attention to the mental health conditions (anxiety) of patients with CND, particularly to those with identified risk factors.

In the current study, the result showed that the overall prevalence ofanxiety among patients with chronic disease was 29.9% and this study was in line with the studyconducted in Pakistan (27.4%) and Brazil (33.7%)(25,27). However; in the present study, the prevalence of anxiety washigher than the study done in Bangladesh 22% (13) and three southeast Asia 17%(26).The finding of this result was lower than the result reportedfrom Turkey, which showed, that the prevalence anxiety amongpatients with chronic disease was 52.2% (24).

Thepossible reason for the difference might be dueto the difference in the sample size of study participants, study period,and data collection tool. For instance,the sample size of the study participantswas 8005 in three southeast Asian countries (Cambodia, Myanmar, Vietnam)(26), and 100in Bangladesh(19). The cut point for HADS was 10 and above, self-administered questionnaires were used and the study period was 6 month in Turkey(24)

The specific prevalence of anxiety among types of diseases included in this study; the prevalence of anxiety among patients with diabetes mellitus in this study was 32.7%. This result was in line with the study done inSaudi Arabia 38.4%(32). On the other hand, it was lower than in study done in Tehran 69.6%(28), Guinea 58.7%(34), Pakistan 57.9%(25) and in China 56.1%(30)

The possible reason forthe discrepancy may be due to differences in study design, data collection tool used, numberof study participants, and socio-cultural differences.A large sample size of study participants, a multicenter study area and it includes only type two diabetes patients in Pakistan(25), Beck Depression Inventory (BDI) Π questionnaire andGeneralized Anxiety Disorder-7 were used as diagnostic tools in Tehran(28) and Saudi Arabia(32) respectively. Whilea study done in China used the Zung Self-Rating Anxiety and Depression Scales and community-based cross-sectional by study design (30).

The prevalence of anxiety among patients with hypertension patient in this study was 29.9%,which is consistent with the previous study done in Addis Ababa, Ethiopia 28.5% (21) while it is lower than the study conducted in Ghana 57%(43)and Afghanistan 42.3%(53). The variation might be due to the difference in data collection tools, sample size, and a difference in study participants.For instance,a study done in Ghana used Depression, anxiety, and stress scale(DASS) to measure anxiety and conducted on two tertiary hospitals and 400 study participants.

This study shows that 25% of patients with cardiovascular disease have anxiety. This result was consistent with a study done in Nepal 27.4%(44) but inconsistent with the study done in Palestine, which shows the prevalence of anxiety was 53.1%(45). The discrepancy might be eligablity criteria ie.they included patient with age between 30-80 years and excluded patients who have diagnosis of epilepsy. and sociodemographic iifference may be a reason for the high anxiety in patients with cardiovascular diseases in that area.

Anxiety among patients with Asthma and COPD in this study shows that the prevalence of anxiety was 25% and 33.3% respectively.

This study was in line withthe study done in Saudi Arabia among asthmatic patients was 28%(39).However, it is lower than the study done in Italy 36.9%(38) and North Manchester general hospital 49 %(36) and higher than the study carried out in Malaysia 4.4%(35). The socio-economic difference between Manchester and Saudi Arabia. Regarding COPD the finding of this study was lower than the study conducted in Jimma, Ethiopia 49.2%(41), and higher than a study done in Saudi Arabia 22%(39).

The reason for the difference might be due to a diagnostic tool used and study design for instance study was done in Jimma used Depression, anxiety and stress scale (DASS 21) and comparative cross-sectional study design while a study done in Saudi Arabia may be due to high study participants (420) and case-control studies.

The prevalence of anxiety among patients diagnosed with epilepsy in this study was 33%.The result was similar toa study done in Addis Ababa Ethiopia 33.5%(52)and west China 33.4%(50). On the one hand, the current finding was lower than the study done in Columbia 46.1%, in Pakistan 48%(49) and west showa, Ethiopia 47.8%(23) the difference might be due to study

design and tool used.For instance,a study done in Pakistan used Hamilton Anxiety Rating Scale (HAM-A) to measure anxiety while in Columbia anxiety was measured by the symptom checklist 90-R(SCL-90R) anxiety subscale, incudes 450 study subject and used retrospective cohort study design

Regarding the associatedfactors, females were more likely tohave anxiety (AOR=2.38, 95%CI(1.61-5.52)) when compared to males among patients with chronic disease. This result is inline with that the study conducted in southeast Asia, Bangladesh, Tehran, China, Guinea, and Ethiopia(19,26,28,34,50,60). This explained by most of the time females were at home, their lifestyle, their role in the family, and socioeconomic factorsmight lead to them having anxiety.

Having more than one chronic disease was four times more likely to have anxiety as compared to respondents with no comorbid diseases. (AOR=4.2, 95%CI [2.18-8.06]).These results were consistent withthe previous study done in Ethiopia(21),Pakistan(25),three Southeast Asia countries (26), and Brazil(27). This may be due to increasing health care expenditure and more burden of pills, as a result, such patients are more likely to develop a psychological illness.

Those patients who didn't perceive illness control were three times more likely to have anxiety as compared to patients who have perceived illness controlled.(AOR=5.43, 95%CI (2.75-10.7).This study was consistent with the studydone in Saudi Arabia (61). This may be due to those patients who not feeling their disease is not under controlled worry about uncertainty in the future about their disease.

Regarding physical activity, those Patients who were physicallyinactive were twice more likely to have anxiety as compared to patients who perform physical activity (AOR=2.83, 95%CI(1.56-5.13)). This finding can be supported by a study done in Palestine among cardiac patients(45).This might be due to the role of exercise in the reduction of anxiety in the individual and enhancement of the overall well-being.

Limitation and strength of the study

Strength of the study

- The standardized tool was used to assess anxiety

Limitationof the study

- The cross-sectional design of the study limits our ability to make causal inferences.
- The instrument usedis only used for screening purposes, not for the diagnostic instrument.
- The participant self-report data collection may over or under-report their feeling and those present during data collection were those who have anxiety symptoms or those who don't present during the study period may have anxiety

CHAPTER 7: CONCLUSION AND RECOMMENDATION

7.1. Conclusion:

The prevalence of anxiety among patients with non-communicable chronic diseases was high. The main factors were female sex, perceived illness not controlled, presence of co-morbid illness, and physical inactivity.Anxiety may affect the patient's ability to control their condition, their quality of life, and their overall health levels. Therefore screening for anxiety symptoms and treating patients who have symptoms for a better outcome

7.2. Recommendation:

Based on this study finding the following recommendations were forwarded for a health professional, Jimma Medical Center, Minister of Health, and Researchers.

Health care professional

- Patients with chronic non-communicable disease should be screened, recognized and treated for anxiety.
- Patients with comorbidy disease and female patient should be screened for anxiety.
- Should assess patients perception about their disease control
- Should provide advice to patients about the importance of physical activities to prevent anxiety.

To Jimma Medical Center: It is good if regular screening of anxiety is considered especially for females and patients with comorbid diseases.

To the ministry of health: It will be better if anxiety-based training is given for health professionals who are working at chronic illness

To researchers: It is better if a longitudinal study was conducted to establish a cause and effect relationship between anxiety and chronic non-communicable disease

To patient: They should report their feeling to their health care professional and ask for advice

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ANNEX

JIMMA UNIVERSITY, INSTITUTE OF HEALTH, FACULTY OF HEALTH SCIENCE SCHOOL OF NURSING AND MIDWIFERY, DEPARTMENT OF ADULT HEALTH NURSING

Questionnaires' format for respondents on the prevalence and predictors of anxiety among patients with chronic disease on follow up at Jimma Medical Center.

Information Sheet

Introduction: Good morning/good afternoon! My name is _____and I come from_____. I am working as data collectors on the study of prevalence and predictors of anxiety among patients with chronic disease on follow up at Jimma Medical Center. Mr. Megersa Dinku who is an MSc student in Adult health nursing specialty at Jimma University is conducting the study.

Objective: To assess the prevalence and predictors of anxiety among patients with chronic disease on follow up at Jimma Medical Center 2020. You are being asked to take part in this study and to respond genuinely. It will take approximately 20 minutes to complete the questionnaire.

Participation: Your participation is voluntary and you are not obligated to answer any question you do not wish to answer. If you feel discomfort with the question, it is your right to drop it any time you want without penalty.

Risks and benefits: This study does not benefit you directly; however, your honest answer to these questions will help us to understand better, how the problem can be prevented. This finding will also help to develop good strategies and to solve the problems of the future; we greatly appreciate your truthful and ken participation in responding to these questions. There is no harm or discomfort including physical, psychological and social risks to you, except the time spent on completing the questionnaire.

Confidentiality: personal information will be identified within the data processing only. Your name will not be needed in this form and will never be used in connection with any information

you tell us. All information given by you will be kept strictly confidential. The collected data will only be used for the study.

Person to contact: If you have questions regarding this study or would like to be informed of the results after its completion, please feel free to contact the principal investigator.

Address of the principal investigator: Cell phone: +25187821858/

Email: mergikoo10@gmail.com

Data collector's name_____ Signature_____Date_____

THANK YOU VERY MUCH FOR YOUR COOPERATION

Are you willing to participate in the interview? Yes/No

IF NO, thank you IF YES, Consent Form

Consent form

I have been briefly informed about the study and I clearly understood the purpose, risks, benefit, and the right to participate and withdraw at any time. I have also informed that there is no direct financial benefit for my participation. Since it does not affect my personal life, I do not need any remedy. Consequently, I am willing to participate in the study.

ID NO……

Interviewer name……Supervisor……Date of interview…….

Appendix I: English version questionnaire

Section 1. Socio-Demographic Characteristics of study participants related to chronic disease

Instruction: Indicate your choice by encircling or fill on the space provided

Code	Question	Response	Remark
101	Sex	1.Male 2.Female	
102	What is your age in years?		
103	Which Ethnic group you belong to?	1. Oromo 2. Amhara 3. Tigre 4. Gurage 5. Dewaro 6. Other specify	
104	What is your marital status?	1. Single 2. Married 3. Divorced 4. Widowed	
105	What is your religion?	1. Muslim 2. Orthodox 3. Catholic 4. Protestant 5. Other(specify)	
106	What is your level of education?	1. Unable to read and write 2. Can read and write 3. Grade 1-8 4. Grade 9-12 5. Diploma 6. Degree and above	
107	What is your current occupational status?	1. Government employee 2. Un employed 3. Private employee 4. Students 5. Merchants 6. Others (specify) -----	
108	Your approximate Monthly income (ETB)?		

Section 2: Disease related questionnaire to be filled by data collectors either from the patient or from the document of the patient.

S.No	Question	Response	Skip
201	How long has it been since you were diagnosed	Years	

	with this disease?(e.g. Hypertension)		
202	Do you suffer from any other chronic disease?	1. Yes 2. No	If no skip to 204
203	If yes to 'Q 202' which chronic disease(please review patient chart)	1. Diabetes mellitus 2. Hypertension 3. Epilepsy 4. Coronary artery disease 5. Others(Specify)	
204	How frequent you visit your physician?		
205	Do you have complications from this disease (hypertension) in the last one year?	1. Yes 2. No	
204	For how long have you been on the treatment of this disease?		
205	How many type of medication (including tablets and injections) are you taking know?		
206	Do you have any family member with chronic illness?	1. Yes 2. No	
207	Do you think your disease was under control now?	1. Yes 2. No	

Section 3: Anxiety subscale, Hospital Anxiety and Depression Scale (HADS) questioner

Instruction: This questioner consists of seven groups of statements. Please read each group carefully, and then pick out the one statement in each group that best describes the way you have been feeling in the past weeks. Don't take too long over you replies: your immediate is best.

S.no	Questioner	Response	Skip
301	I feel tense or wound up	1. Not at all. 2. From time to time(occasionally) 3. A lot of time 4. most of the time	
302	I get a sort of frightened feeling as if something bad is about to	1. Not at all 2. A little but it doesn't happen worry me 3. Yes, but not too badly Very 4. Definitely and quite badly	
303	Worrying thoughts go through my mind	1. Only occasionally 2. From time to time, but not too often 3. A lot of the time 4. a great deal of time	
304	I can sit at ease and feel relaxed	1. Definitely 2. Usually 3. not often 4. Not at all	

305	I get a sort of frightened feeling like butterflies in the stomach	1. Not at all 2. Occasionally 3. quite often 4. Very often	
306	I feel restless and have to be on the move	1. Not at all 2. Not very much 3. Quite a lot 4. Very much indeed	
307	I get sudden feelings of panic	1. Not at all 2. Not very often 3. Quite often 4. Very Often indeed	

Section 4: Social support related questionnaire

Instruction: This questioner consists of three groups of statements. Please read each group carefully, and then pick out the one statement in each group that best describes the way you have been feeling.

Code	Questions	Response	Answer
401	How many people are so close to you that you can count on them if you have serious problems?	1. None 1 or 2 3–5 6 or more	1 2 3 4
402	How much concern do people show in what you are doing?	A lot of concern and interest Some concern and interest Uncertain Little concern and interest No concern and interest	5 4 3 2 1
403	How easy can you get practical help from neighbors if you should need it?	Very easy Easy Possible Difficult Very difficult	5 4 3 2 1

Section 5: Morisky Medication Adherence scale-8 items measurements of study participants.

You indicated that you are taking medication for your disease. Individuals have identified several issues regarding their medication-taking behavior and we are interested in your experiences. There is no right or wrong answer. Please answer each question based on your personal experiences with your disease and related problems medication. Please answer the following question by saying yes or no. use Likert scale for question number 508.

Code	questionnaire	Response	skip
501	Do you sometimes forget to take your medicine?	1. Yes 2. No	
502	People sometimes miss taking their medicines for reasons other than forgetting. Thinking over the past 2 weeks, were there any	1. Yes 2. No	

	days when you did not take your medicine?		
503	Have you ever cut back or stopped taking your medication without telling your doctor, because you felt worse when you took it?	1. Yes 2. No	
504	When you travel or leave home, do you sometimes forget to bring along your medications?	1. Yes 2. No	
505	Did you take all your medicine yesterday?	1. Yes 2. No	
506	When you feel like your disease is under control, do you sometimes stop taking your medicine?	1. Yes 2. No	
507	Taking medication every day is a real inconvenience for some people. Do you ever feel hassled about sticking to your treatment plan?	1. Yes 2. No	
508	How often do you have difficulty remembering to take all your medication?	0. never/rarely 1. ones a while 2. sometimes 3. usually 4 .all the time	

Section 6: Behavioral related factor

Code	Question	Response	Skip
601	How many days do you exercise in a week?	1. Daily 2. 5 to 6 times 3. 3 to 4 times 4. 1 to 2 times 5. never	
602	How much time do you exercise for each session?	1. >40minutes 2. 30-40 minutes 3. 20-30 minutes 4. <10 minutes	
603	Have you ever used tobacco products such as cigarette in your life?	1.Yes2. No	
604	If you say yes, how often?	1. Every day 2. Some day	
605	For how many years smoke cigarette?	……..months/years	
606	Do you smoke cigarettes in the last one month?	1. Yes 2. No	
607	If say yes for Q.604 how often?	1.Every day 2.Some day 3.Not at all	
608	On average how many cigarettes do you smoke currently each day?	----	
609	Have you ever consumed any alcohol content such as beer, wine, tela, areki?	1. Yes 2.No	
610	If yes to Q 607 how often?	**1**.Every day **2**.Once a week **3**.3-2 days per week**4**. Occasionally	
611	If yes to Q 608, what type of alcohol do you drink?	1. Beer/Draft 3.. Wine 2. Tej 4. Others (specify) _	

612	Do you take any alcohol contain in the last one month?	1. Yes 2. No	

Appendix II: Afan Oromo version questionnaire

Gaaffilee qorannoo miira dhippinaa fi wantoota isaaniin walqabatan namoota dhibee dardarboo hin taane qaban Kan deddebi‟anii yaalaman qorachuudhaaf qophaa'e

Uunkaa walii galtee

Maqaan koo _____. Ani namota raga waa'ee miira dhiphina fi wantoota isaaniin walqabatan namoota dhibee dardarboo hin taanee qaban Kan deddebi‟anii yaalaman qorachuudhaaf qophaa'e funanan kessaa ishee/isaa tokko dha. Gaaffilee murasaa naannoo daqiiqaa 20 fudhatuun sii gaafadha. Odeffannoo/ ragaan sirra funanamuu qorannoo kana qofaaf ittii fayyadamaama. Maqaan kee asirratti hin barreeffamu. Gaaffii deebisuu hin barbannee kamiyyuu deebisuu dhisuu dandeessaa, yeroo barbade kamittiyyuu addaan kutuu ni dandeessa.

Haata'uu malee obsaa fi xiyyeffannadhaan akkasumas amanamummadhaan yoo gaaffilee kana naa deebistaan kayyoo qo'annaa kana jechunis sababotta miira dhipina fi wantoota isaaniin walqabatan namoota dhibee dardarboo hin taane qaban Kan deddebi'anii yaalaman beekuuf naa gargaraa.Deggersaa naaf gootaniif baayeen isiin galateffadha

Gaaffanoo kana keessatti hirmachuuf fedha qabduu?

Eeyyee (gafachuu itti fufii) lakkii (galatoomii jedhii garaa tajaajilamaa itti aanutti darbi)

Lakk. Kaardii----------

Maqaa nama raga funaanu/tu ----------Mallattoo --------- Guyyaa --------

Maqaa to'ataa/tu ----------Mallattoo --------- Guyyaa ----------

KUTAA1ffaa: Gaaffile dhimma hawaasummaa fi enyummaa

Ajaja: Gaaffile armaan gaditiif deebii hirmaataan filate irra marsudhaan akkasumas gaaffilee tokko tokkof bakka duwwaa irratti guutuudhaan deebisaa.

Lakk.	Gaaffii	Deebii	Irraa darbii
101	Saala	1. Dhiira 2. Dhaala	
102	Umuriin kee meeqa?	……..waggaa dhaan	
103	Saba/qoomoo	1.Oromoo 2.Amharaa 3. Tigiree 4.Guraage 5.Dawaroo 6.kan biroo (haa ibsamuu)-----	
104	Halaa fudhaa fi herumaa	1.Hin herumnee/ hin funnee 2. Kan herumtee/ kan fuudhee 3.Adda baanee/wal hikan 4.Abban/Haadhaa mana kan irraa du'ee 5. kan biroo (haa ibsamuu)___	
105	Amantaa	1. Musiilima 2. Orthodoksii 3. Katolikii 4. Pirotestantii 5. kan biro(haa ibsamu)-----	
106	Sadarkaa barumsaa	1.Hin barrannee 2.Dubbisu fi bareese kan danda'uu 2.Sadarkaa 1ffaa (1-8) 3. Sadarkaa 2ffaa(9-12)	

		4.Dipilooma 5. Digirii	
107	Hojiin kee maalii?	1.Hojetaa/tu motummaa 2.Daldala/tu 3.Barataa/tu 4. Haadhaa warraa 5. Qote Bula 6. Soorumma kan bahe 7. kan biroo (haa ibsamuu)___	
108	Galiin keessan(maatii) kan ji'aa giddugaleessaan meeqa ta'a jettanii yaaddduu?(Qarshiin)	------	

Kutaa 2ffaa: Gaaffilee waa'ee rakkoo dhukkubaa wajjin walqabatu fi dawaan waliin qabatan

Lakk	Gaafillee	deebii	Irra darbii
201	Dhukkubaa kan (fakkeenyaaf, dhiibaa dhiiga)akka qabduu ergaa beektee yeroo hagami ta'eera?	------ji'a/wagga	
202	Dhukkubaa nama namatti hin darbine kan biroo ni qabdaa?	1. Eyyee 2. Lakkii	Lakkii yoo tahe gaafii 204 tti darbi
203	Deebiin gaaffii 202eyyee yoo tahe dhukkubaa isaa kami?(kardii dhukkubastaa illalun mirkaneessi)	1.dhukkubaa sukkaaraa 2. dhukkubaa onnee 3. Dhukkuba dhiibbaa dhiigaa 4. Gaggabdoo 5.Kan biroo (haa ibsamuu)	
204	Beelamnii kee ji'aa meeqa meeqan turee		
205	Waaggaa darbe keessatti Sababii rakkoo haama /daanqaa dhukkuba kaanatiin siitii dhufee beekta?	1.Eyyee 2. Lakkii	
206	Dawaa dhukkubaa kan fudhachuu		

	ergaa eegalte yeroo hagami?		
207	Yeroo amma kana dawwa(kan liiqifamuu ykn lilmeen keenamuu) gosaa meeqa fudhata?		Kaardii dhukkubastaa illa illalun mirkanessi
208	Maatii kee keessa namnii dhukkuboota dadarboo hin taanee qabuu ni jira?	1.Eyyee 2. Lakkii	
209	Dhukkubni koo kun to'atamee(ammatti naa sirra'ee) jira jette yaada?	1.Eyyee 2. Lakkii	

Kutaa 3ffaa: Gaafilee miira dhiphina ilaalchisee

Hub: Torbaan darbe keessa waan isinitti dhagahame bu'uura godhachuun gaafilee armaan gaditti ogeessi isin gaafatuuf deebii sirrii kennaa. Akkuma gaafatamtaniin deebiin isinii dhufe waan keessatti isinitti dhagahamu sirritti ibsuu waan danda"uuf hamma danda"ameen saffisaan deebisaa

Lakk	Gaafii	Deebii	Irraa darbii
301	Cinqiin ykn tasgabbii dhabuun sitti dhagahamaa turee?	0.Gonkumaa natti hin dhagahamne 1.Darbee darbee natti dhagahama ture 2.Yeroo baay'ee natti dhagahama ture 3.Harka irra caalu/ caalmaatti natti Dhagahama	
302	Wanti ajaan /yaraan/gadheen akka waan si qunnamuuf jedhuutti/deemuutti miirri sodaa sitti dhagahamaa?	0.Goonkumaa natti hin dhagahamu 1.Xinnooshee, garuu na hin yaaddessu 2.Eeyyen, garuu hammas na hin yaaddessu 3.Baay'ee baay'ee natti dhagahamaa ture	
303	Yaadonni nama yaaddesssan sammuu kee keessa hammam deddeebi'u ture	0. Altokko tokko qofa 1.yeroo baay'ee ta'uu baatus yeroo gara yerootti/ darbee darbee 2. yeroo baay'ee 3. Baay'isee yeroo baay'ee	

304	Tasgabbooftee taa'uu fi miirri boqonnaa sitti dhagahamaa turee?	0.Sirriitti/guutumatti natti dhagahama ture 1.yeroo baay'ee natti dhagahama ture 2.Yeroo baay'ee natti hin dhagahamu 3.Gonkumaa natti hin dhagahamu	
305	Garaacha kee keessa akka waan billaachi jiruutti miirri sodaa fi rifannaa sitti dhagahamaa	0 gonkumaa 1darbee darbee 2 baay'ee 3 baay'isee baay'isee	
306	Iddoo ta'e deemuu akka waan qabduutti /sirraa eegamuutti miira tasgabbii dhabdee turtee?	3 baay'isee yeroo baay'ee tasgabbii dhaba 2 baay'ee na rakkisa 1 baay'ee nan rakkisu 0 Gonkumaa nan rakkisu	
307	Torban darbe keessa Tasuma miirri sodaa sitti dhagahamaa turee?	0 gonkumaa 1 Eeyyen, garuu yeroo baay'ee miti 2 yeroo baay'ee 3 baay'ee baay'ee	

Kutaa 4ffaa: Gaafilee gargaarsa hawaasummaa ilaalchisee

Ajaja : Kutaan Kun muxannoo hirmaataan walqunnamti hawaasa irratti qabu ilaallata.Gaaffile armaan gadi deebii hirmaataan filatan irra marsudhaan deebisaa.

Lakk	Gaaffilee	Deebii	
401	Namoota meeqatu yeroo rakkoon isiin qunnamu na qaqqaba jettanii yaadduu?(filannoo tokko qofa filadhaa)	4/ 5 oli 3/ 3-5 2/ 1 ykn 2 1/ Homtuu na hin qaqqabu	
402	Namoota meeqatu wanta isin mudateef dhimmama ykn yaaddawa? (Filanno tokko qofa filadhaa)	5/ Hedduu/Baay'ee 4/ Muraasa/ Hamma	

		ta‟e 3/ Hin barre(Na mamsiisa) 2/ Baay’ee xinnoo 1/ Homtuu	
403	Maatii keessan keessaa ykn namoota waliin mana tokko keessa raftan irraa gargaarsa qabatamaa qabu carraan argachuu keessan hammami?(tokko filadhu)	5/ Baay’ee salphaa 4/ Salphaa 3/ Giddugaleessa 2/ Rakkisaa(ulfaataadha) 1/ Baay’ee rakkisaa(ulfaataadha)	

Kutaa: 5ffaa: Hordoffii Safara Qoricha Mooriski Waa’ee Qoricha Ogeessi Fayyaa Siif Ajajee Yaadudhaan Fudhaachuu Qorachuuf Qophaa’e (MMAS-8)

Lakk	Gaaffilee（Torbaan lamaan darban keessa）	Deebii	
501	Yeroo tokko tokko qoricha kee fudhachuun ni irraanfattaa?	1. Eeyee 2. Lakkii	
502	Namoonni yeroo tokko tokko irraanfachuun ala sababa birootiin qoricha odoo hin fudhatin hafu.Torban lamaan darban keessa guyyaan ati qoricha kee utuu hin fudhatin hafte ni jiraa?	1. Eeyee 2. Lakkii	
503	Qoricha kee ergaa liqimsiteen booda waan dhukkuba kee sitti hammeesse sitti fakkaatee yeroon ati utuu haakima kee hin mariisisin qoricha kee fudhachuu dhiifte ni jiraa?	1. Eeyee 2. Lakkii	
504	Yeroo imaltu/manaa baatu yeroon ati qoricha kee fudhatte ba’uu irranfatte ni jiraa?	1. Eeyee 2. Lakkii	
505	Kaleessa qoricha kee hunda fudhatte jirtaa?	1. Eeyee 2. Lakkii	
506	Yeroo dhukkubni kee sitti fooyya’uu yeroon ati qoricha kee fudhachuu dhiifte ni jiraa?	1. Eeyee 2. Lakkii	
507	Guyyaa guyyaan qoricha fudhachuun namoota baayyee ni	1. Eeyee	

	nuffisiisa. Qoricha kee fudhachuun si nuffisiisee beekaa?	2. Lakkii	
508	Yeroo hammamiif qoricha kee fudhachuu irraanfattee beekta?	1: Goonkumaa 2: Yeroo tokko 3:Darbee darbee 4:Yeroo heddu/Baay‟ee 5.Yeroo hunda	

Kutaa 6ffaa: Gaafilee waa'ee amalaa dhunfaa keessan ilalchisee gaaftamuu

Code	Gaafilee	Deebii	Irra darbii
601	Tanmboo arsitee beekta?	1.Eeyee 2. Lakkii	
602	Deebiin kee eeyeen yoo ta'ee yeroo meeqa?	1. Guyya hundaa 2. Guyya tokko tokko	
603	Waggota meeqaf taniboo arsaa turtee	……..months/years	
604	Do you smoke cigarettes in the last one guyyoota 30n darban keessa tanimboo arsitee beekta	1. Eeyee 2. Lakkii	
605	Deebiin kee lakk.604 eeyeen yoo ta'ee yeroo meeqaf?	1. Guyya hundaa 2. Guyya tokko tokkoo 3. Gonkummaa	
606	Giddugaleesanni guyyattii sigaraa meeqa arsiita?	----	
607	Dhugaatii alkolii faayadamtee beektaa	1. Eeyee 2. Lakkii	
608	Gaafii lakk 607f deebiin kee eeyeen yoo ta'ee yeroo meeqa fayyadamtee?	1. Guyya hundaa 2. Torbeetii sii'a tokkoo 3. Guyyoota 3-2 torbeetii 4. Darbee darbee	
609	Yoo deebiin kee eyyeen ta'ee gaafii lakk608 tiif gosaa alkoolii isaa kami fayyadamaa turtee?	1. Biiraa 2. Waayinnii 3. Tajii 4. Kan birro(yaa ibsamuu)	
609	Dhugaatii alkolii qabuu guyyoota 30n darbee keessa fayyadamtee beektaa?	1. Eeyee 2. Lakkii	

Appendix III: Amharic version of the Questionnaire

የፈቃድኝነት ትወል

ጠፍ ይስጥልኝ፡ ፡ እኔ ----------እባላለሁ፤ በጅማዩኒቨርሲቲ ጠፍ ሳይንስ ኮላጅ የደህረ ምረቃተማሪ በሆነ ወአቶ ማርስ ደንቁለሚሪውጥናት ሚጃ ሰብስቢነኝ፡ ፡ ጥናቱምየጫቅት ሥሮ የሰደደ በሽታባለባቸው ሰዎች ያለመን ስርጭት እና የሚዳብሱሀኔታወች የሚጠፍ ነው፡ ፡ የጥናቱ ዋና አለማም ይህንኑመለረታዊ ሚጃ ለማገኘት ነው፡ በእርግጠኝነት ስምምት በመስይቁ ወቅጥ የሚከተት ሲሆን የሚጠቅም ምላሽበሚጠር ይያዛል፡ ፡ በጥናቱ ለመሳተፌ አይገዳደም፤ በማናቸውም ጊዜ መስይቁን ማቋረጥ ይችላሉ፡ ፡ ሆኖም ግን ያንተ /ያንቺ ትክክለኛ ምላሽ የጥናቱን አላማለማሳካት ጥናቱንየማካሄድሰወደጠቅማል።

ስልዚህ እባክዎትን ትክክለናውን ሚጃ ከመለጠት ላይቆጠቡ፡ ፡ መስይቆቹ ከ 15 ዳቂቃዎች በላይ አይወስዱም፡ ፡ በማየቁ ወቅት መመለስየማትፈልገውን ማናቸውንም አይነት ጥያቄ ወይም በማናቸውም ጊዜ ማበራሪያ መስየቅ ይችላሉ፡ ፡ በጥናቱ ለመሳተፌይስማማሉ።

ሀ. እስማማለሁ ለ. አለስማማም

መልሶ አዎ ከሆነ ወደማቋጠለውገፅ እለፊ/ፍ አለስማማምከሆነ አመልግነ መስይቁን ያቋርጡ፡

ማናቸውማሳይነት ጥያቄ ካልዎት, በግል ወይምበደብዳቤበማቋጠለውአደራሻ ለማጋገር አያመንቱ

Mergikoo10@gmail.com ወይምበሞባይል ስልክ +251987821858

የታካሚውካርድቁጥር _____

የሚጃወሰብስቢስም_____ ፊርማ_____ ቀን _____

የተቆጣጣሪወስም_____ ፊርማ_____ ቀን _____

ክፍል 1፡ የመህበራዊ ና የግል አናኗርን በተመለከተ ቃለ መጠይቅ

የሚከተሉትጥያቄዎችስለርስዎመህበራዊናኢኮኖሚያዊሁኔታየሚጠይቁናቸው፡ ፡ እያንዳንዱንጥያቄ

ካነ በበብኻለመልሱን በተሰጠቱክፍትቦታዎችይጻፉ፡ ፡ አሚራጫላላቸውጥያቄዎችደግሞመልሱን

በማክበብይመልሱ፡ ፡

ተ.ቁ.	መጠይቅ	መልስ	እለፍ
101	ጻታ	1 ወንድ 2 ሴት	
102	እድሜ (በመሉአመት)		
103	ብሔር	1. ኦሮሞ 2. አሚራ 3. ትግሬ 4. ጉራጌ 5. ሌለካላይገለጽ	
104	የጋብቻሁኔታ	1. ያላገባ 2. ያገባ 3. አግብቶየፈታ 4. ባል/ሚስትየሞተባት/በት 5. የወንድ/የሴትእጮኛያላት/ ያለው	
105	ኃማኖት	1 መስለም 2 ኦርቶክስክርስትያን 3 ካቶሊክ 4 ፖሮቴስታንት	

		5 ሌላካላይጋለጻ	
106	የትምህርትደረጃ	1。 ያልተማሪ 2。መፃፍእናማንበብየማይችል 3. አንደኛደረጃ (1-8) 4. ሁለተኛደረጃ (9-12) 5.ዲፕሎማ 6.ዲግሪ	
107	የስራሁኔታ	1. የመንግስትሰራተኛ 2. ነጋዴ 3. ተማሪ 4. አርሶአደር/ገብሬ 5. ሌላ (ግለጽ)------	
108	አጠቃላይወርሃዊገቢበብር		

ክፍልሁሌት፡ በሽታወኃእና መዳኒትንበተመለከተመጠይቅ

ተ.ቁ	መጠይቅ	መልስ	እለፍ
201	የ በሽታ (ደምበዘት) እንዳለብህከታወቀምንያህልጊዜሆነ ክ?		
202	ከ በሽታ (ደምበዘት፡ ልብድካም.ስካርበሽ:የማኒልበሽታ) ወጪዋለለበማይተላለፍበሽታትታመማለህ?	1. አዎ 2. የለም	ለጥያቀ202 መልስ 2 ከሆነ ወደ204 እለፍ
203	ለጥያቄ 202 አዎየህመማ አይነ ት ይግለፁ/ይጥቀሱ?	1. ልብድካም 2. ስካርበሽታ 3. ግፊት 4. የማኒልበሽታ	

		5. ልላይጥቅሱ-----	
204	በአማክኝ ምንያህል ጊዜ ጠፍ ማእከል ትመጣለ ?		
205	ከዝ በሽታጋ ዬማጣተጎዳኝ በሽታዎችን አለዎት?	1. አዎ 2. የለም	
206	መዳኒትን መዉሰድ ከጀመርክበአመት ለምን ያህል ጊዜ ነ ዉ?		
207	በአሁን ግዜ ስንት አይነ ት መዳኒት ትወስዳለህ?		
208	ስር የ ሰደደ በሽታ ያለብዎ የ ቤተሰብ አባል አለዎት?		
209	በሽታዎአሁንበቁጥጥርስርየዋለውይመስልዎታል?	1.አዎ 2.የ ለም	

ክፍሌ 3 :የ ጫኔቀትመ ግ ምን ሚደ መጠይቅ

ባለፈውሣምንት የ ተስማዎን ትክክለኛ ስማቹ መሠረት በማድረግ የ ጠፍ ባለማዎዉ ቀጥሎለሚጠይቁዎት ጥያቄ ተገ ቢዉን መልስ ይሰ።

በተቻለ መጠን ሲመሌሱ ብዙ ጊዜ አይወስዱ፡ ምና ልባት እንደተጠየ ቁ ወዲያወኑ የ መጣልዎት መልስ ትክክለኛ ስማቹዎን ሊገ ልፅ ይችላል።

ተ.ቁ	መጠይቆት	አማራጮት
301	የ ሚጌቅ ወይምየ መወጠር ስማቹ ምን ያህል ይስማዎታል ?	3 ባጣም ብዙ ጊዜ 2 ብዙ ጊዜ 1 አልፎ አልፎ 0 ምንምአይስማኝም
302	አንድ መጥፎ ነ ገ ር ሊያ ጋጥምዎ የ ተቃረበ የ ሚሞስል የ ፍርሀት ስማቹ ይሰማዎተል?	3.እጅግ በጣምይሠማኛል 2.በጣምይሠማኛል 1.በጥቂቱ ይሠማኛል

		0.ምንምአይሠማኝም
303	ጫቅትን የሚጫጭ ሀሳቦችበአእምሮዎ ምን ያህል ይመላለሳሉ?	3. በጣምብዙ ጊዜ 2. ብዙ ጊዜ 1. አብዛኛዉን ጊዜ ባይሆንምአልፎ አልፎ
304	ተረጋግተዉመቀመጥ እና ዘና ማለት ይችላሉ?	0. ሁሌምእችላለሁ 1. አብዛኛዉን ጊዜ እችላለሁ 2. ብዙዉን ጊዜ አልችልም 3. ምንምአልችልም
305	ሆድ አከባቢ የሚሰማየ መደንገጥ ወይምየ መሸበር ስሜት ይሰማዎታል?	0. ምንምአይሰማኝም 1. አልፎ አልፎ 2. ብዙ ጊዜ 3. በጣምብዙ ጊዜ
306	አንድ ቦታ መሄድ ያለብዎ ይመስል ተረጋግተዉመቀመጥ ይቸግረዎታል?	3 በጣምብዙ ጊዜ ይቸግረኛል 2 ብዙ ጊዜ ይቸግረኛል 1 ብዙምአይቸግረኝም 0 ምንምአይቸግረኝም
307	በደንገት የ መደንገጥ ወይምየ መሸበር ስሜት ይሰማዎታል?	3 በጣምብዙ ጊዜ ይሰማኛል 2 ብዙ ጊዜ ይሰማኛል 1 አልፎ አልፎ ይሰማኛል 0 ምንምአይሰማኝም

ክፍሌ 4 ፡ መህበራዊ ድጋፍ መጠንን በተመለከተ ቃለ መጠይቅ

መመርያ ፡ ከዚህበመቀጠልየ ሚዋጠትሦስትጥያቄዎችየ እርስዎንእናየ ግሌተሞክሮዎን ይመልከታለ ።

እባክዎትንተሳታፉዉንየ ግሌተሞክሮየ ሚመልከተዉንምርጫበቻበሞክበብይተባበሩን ፡ ፡

ተ.ቁ	የማህበራዊግኑኝነት ተሞክሮይቅ	መላሽ	
401	ምንያህልሠዉአዳጋ (ችግር) በሚደጋጥሞትጊዜበቅርብየ ችግርዎተካፊይለሆኑሌዎትይችላሉ? (አንደያምርጫብቻያክብ)	1. ምንም 2. 1 ወይም2 3. 3-5 4. ከ 5 በላይ	
402	እርስዎ የሚሩት ነ ገር ሰዎችን ምን ያህል ያሳስባቸዋል / ግድ ይላቸዋል (አንድ ብቻ ይምረጡ)	5. ብዙ 4. ጥቂት 3 ዕርግጠኛአይዳለሀም 2. በጣምትንሽ 1. ምንም	
403	ከበተሰቦችዎወይንምከጉረቤትዎ እርዳታለማግኘት በፊልጉ ምን ያህል ቀላል ነ ዉ(አንድ ብቻ ይምረጡ)	4. በጣምቀላል 3. መጠ ኛ 2. ከባድ 1. በጣምከባድ	

ክፍለ5:የመድሃኒትአወሳሰደያመለከያቅጽ

ተ.ቁ	ጥያቄዎች	መላሽ	
501	አልፎአልፎመድሃኒቶን መዉሰዴይረሳለ?	1. አዎ 2 የለም	
502	ሰዎችብተለዩምክንያቶችመርሳትወይምመዉሰድይዘነ ጋለእስትያሰበበትናላለ ፋትህሌትሳምንታትመድሃኒቶንያልወሰደበትጊዜአለ?	1አዎ 2 የለም	
503	ይበስቦችእየመለሉትመድሃኒቶንለህክሞሳያምክሩያቋረጠበትጊዜአለ?	1አዎ 2 የለም	

504	ጉዞ ለይ/ከቤት በማወጠበት ጊዜ አንዲንዳ መድሃኒቶን የዘዉመዉጠት ይረሳሉ?	1አዎ 2 የለም	
505	ትላንትናሁሉንምመድሃኒቶንወስደዋል	1አዎ 2 የለም	
506	አንዳንዴህመሞት የተሻለዎት ስመስለዎት መድሃኒቶን መዉሰዴያቆማሉ	1አዎ 2 የለም	
507	በየቀኑመድሃኒትመዉሰድአሰልትነ ወበእዉነ ቱአንቱመድሃኒቶንበትክክልሳየቆርጠቱጨዉቀዉ በትለመዉሰድጥረትየቶርጉነ በር?	1አዎ 2 የለም	
508	ለምንያክልጊዜመድሃኒቶንመዉሰድይረሳለ?	1 በጭራሽአ ልረሳም 2 ከስንትጊ ዜአንዴ 3 አንድአነ ድጊዜ 4 በብዛት 5 ሁልጊዜ	

ክፍሌ 6፡ ሱስንበተመለከተመጠይቅ

ተ.ቁ	ጥያቄዎች	መሌስ	
601	በህይወትዘመንዎሲጋራአጭሳወያወቃለ	1አዎ	

		2አይደለም	
602	ለ ጥያቄ601 አዎ ካሉ	በየ ቀኑ አለፎአለፎ ምንም	
603	ለምን ያክል ጊዜ አጫሰዋል?		
604	ላለፈው1 ወርስንትቀናትትጫሣሆ/ ሲጋራአጫሰወያወቃለ?	1አዎ 2አይደለም	
605	604 አዎ ካሉ		
606	በአማካይበቀንስንትሲጋራያጨሱ?	በየ ቀኑ አለፎአለፎ ምንም	
607	አልኮል ያለመቀበልደወያወቃሉ?	አዎ አለመቅም	
608	አሁንለይይጠጡ ?	አዎ አለመቅም	
609	ባለፈአንድወርጊዜ ወቅጥ ስንትቀናትጠጡ?	.....የ ቀኑብዛት	

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

Name:**Megersa Dinku Hunde (BScN)**

Signature: _____Date of submission: **31/Aug/2020**

Name of the institution: **Jimma University**

This thesis has been submitted for examination with my approval as University advisor

Name of the first advisor:**Prof. Susan Anand (MSN; PhD)**

Signature: _____ Date approval: **31/Aug/2020**

Name of Co-advisor:**Ebrahim Yimam (MSc: Ass't Prof.)**

Signature:_____ Date of approval: **31/Aug/2020**

The result of this thesis has been submitted for the department of Adult Health Nursing with my approval as a university examiners.

Name of Internal examiner:**Samual Abdu (MSc, Ass't Prof.)**

Signature: _____ Date of Approval: **31/Aug/2020**

Name of External examiner: **Dr. Biftu Geda**

Signature : _____ Date of Approval :_____