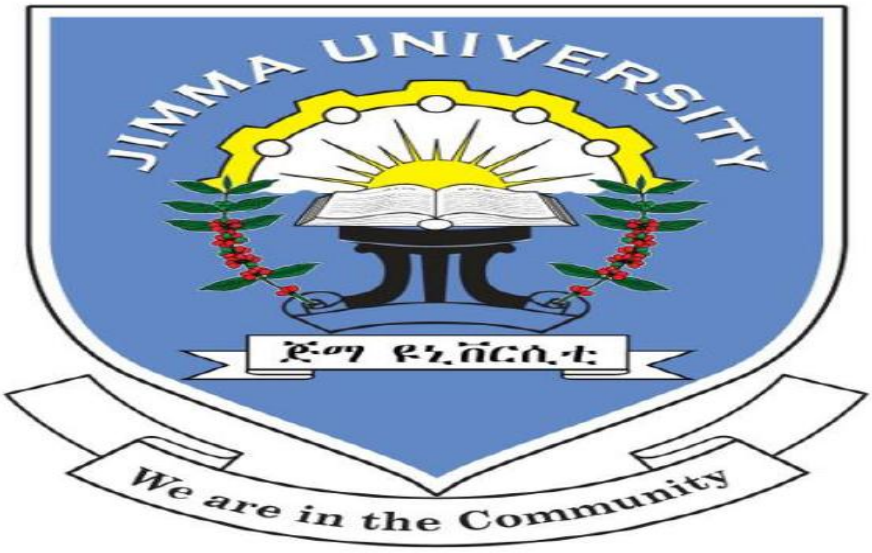

PREVALENCE OF DEPRESSION AND ASSOCIATED FACTORS AMONG PATIENTS WITH HYPERTENSION ATTENDING FOLLOW UP TREATMENT AT JIMMA UNIVERSITY MEDICAL CENTER, JIMMA, SOUTHWEST ETHIOPIA, 2019

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A RESEARCH THESIS SUBMITTED TO JIMMA UNIVERSITY, INSTITUTE OF HEALTH, FACULTY OF MEDICAL SCIENCE, DEPARTMENT OF PSYCHIATRY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR MASTERS DEGREE OF SCIENCE IN INTEGRATED CLINICAL AND COMMUNITY MENTAL HEALTH

OCTOBER, 2019

JIMMA, ETHIOPIA

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Abstract

Background: *Depression is one the most common chronic mental illnesses causing huge burden worldwide. When it occurs with hypertension it leads to non adherence to antihypertensive medications and life style modification. In addition to this it can result in complication of hypertension, increased health service utilization, functional disability and poor quality of life.*

Objectives: *To assess the prevalence and associated factors of depression among patients with hypertension attending follow up treatment at Jimma University Medical Center (JUMC), Jimma, southwest Ethiopia, 2019.*

Methods: *A hospital based cross sectional study design was employed. Data was collected by interviewer administered pre-tested and structured questionnaire from 344 consecutively selected patients with hypertension attending follow up treatment at JUMC. Depression status was assessed by using patient Health questionnaires-9(PHQ-9). Data was entered into Epi data version 3.1 and exported to Statistical Package for Social Sience version 22(SPSS 22.0) for analysis. Bivariate and multivariate Logistic regressions were computed to test association between independent variables and outcome variable. Adjusted odd ratio (AOR) with 95% confidence interval was calculated to test strength of association and Statistical significance was set at p-value of < 0.05 in the final regression model.*

Results: *The prevalence of depression in the study participants was 38.1 %(95% CI: 32.5, 43.6). low medication adherence (AOR=3.04; 95% of CI: 1.45,6.38), diagnosed comorbid chronic physical illness (AOR=*4.14*; 95%CI:* 2.01,8.56*), family history of hypertension (AOR=*3.52*; 95% of CI:* 1.72,7.21*), poor social support(AOR=4.22; 95% of CI: 1.96,9.11), moderate to high perceived stress level(AOR=5.92;95%CI: 3.01,11.64), and treatement duration greater than 10 years(AOR=3.74; 95%CI: 1.21,11.58) were variables become signinifantly associated with depression in this study.*

Conclusion and recommendation*: there is high prevalence of depression in study the participants. Low medication adherence, having comorbid chronic physical illness, having family history of hypertension, poor social support, having moderate to high perceived stress level and greater than 10 years duration on treatment were factors signinifantly associated with depression in the study. So ruitine screening of depression among patients with hypertension by considering the above stated factors is crucial for early detection and management.*

Key words: *Depression, PHQ-9, Hypertension, Jimma, Ethiopia.*

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Acronyms and abbreviations

ASSISTv3.0 – Alcohol, Smoking and Substance Involvement Screening Test version three

BDI – Beck Depression Inventory

CVD – Cardiovascular Disease

CIDI – Composite International Diagnostic Intrview

DALY – Disability Adjusted Life Year

DASS-21 – Depression Anxiety and Stress Scale Version 21

DBP – Diastolic Blood Pressure

DSM-5 – Diagnostic and Statistical Manual of Mental Disorders, Version 5

DSM-IV-TR – Diagnostic and Statistical Manual of Mental Disorders, Version IV Text Revision

GHQ – 12 - General Health Questionnaire version 12

JUMC – Jimma University Medical Center

MDD – Major Depressive Disorder

NCD – Non Communicable Disease

OPD – Outpatient Department

OSSS-3 - Oslo - 3 Social Support Scale

PHQ-9 – Patient Health Questionnaire nine

PSS – Perceived Stress Scale

QOL – Quality of Life

SBP – Systolic Blood Pressure

SCID – Structured Clinical Interview of Diagnostic Statistical and Manual Of Mental Disorders

WHO – World Health Organization

YLD – Years Lived With Disability

Chapter 1: Introduction

1.1 Background

Depression is a common mental disorder that can affect every individual. It can presents with sad feeling, loss of interest or pleasure, loss of energy, feelings of guilt or low self-worth, disturbed sleep, disturbed appetite, difficulty in concentration and suicidality in severe case which can interfere with the individuals functionality(1).

Globally depression is estimated to affect about 350 million peoples(2). It is becoming a major health problem worldwide by contributing for 4.5% of the total disability-adjusted life years (DALYs) and account for about 12.1% of the total years lived with a disability (YLDs)(3)

According to the American diagnostic and statistical manual of mental disorders fifth edition; the diagnostic criteria for Major Depression Disorder must consist at least five or more of the nine listed symptoms of depression and from those symptoms either depressed mood or loss of interest should present at least for two weeks(4).

Global average lifetime prevalence estimates of major depressive disorder (MDD) among the general population is 14.6%(5) while it is 20 to 40% among people with chronic medical illness(6). Globally depression is 26.8% prevalent in people with hypertension (7).

Hypertension or High Blood Pressure which is defined as average systolic blood pressure ≥140 mmHg and / or diastolic blood pressure ≥90 mmHg(8) is also an overwhelming global challenge which ranks third as the cause of disability adjusted life-years by causing 64 million Disability-Adjusted Life Year (DALY) which contribute about 4.4% of overall burden of the disease(9).

World Health Organization report in 2010 revealed that around 40% of adults age of 25 years and above globally had hypertension and the prevalence is highest in the African at 46%(10) .

When depression co-morbid with Hypertension it leads to non adherence to medication and non compliance to life style modification behaviors like physical exercise, low salt intake, low high calory food intake and abstain from substance use which increase morbidity and mortality in patients with hypertension(11,12). Therefore knowing the magnitude and factors associated with depression in patients with hypertension is the initial point to intervene the problem.

1.2 Statement of the problem

Depression and hypertension are the known chronic illnessess causing huge burden worldwide(10). The estimation of 2010 indicated that 298 million cases of major depressive disorder worldwide which ranked the second leading cause of years lived with disability (YLD)(13). According to World Health Organization estimates; major depressive disorder (MDD) is projected to become the leading cause of global burden of disease by 2030(14).

The estimation done in 2005 on prevalence of hypertension indicated that in 2000 Among the world adult population 972 million (26·4%) had hypertension in which 333 million were from developed countries and 639 million were from developing countries and this number was predicted to rise to 1.15 billion(29%) by 2025(15). Globally 7.5 million people die every year due to high blood pressure (which is about 12.8% of all-cause deaths) and it cause about 57 million disability-adjusted life years(DALYS)(10).

The overall global prevalence of depression in patients with hypertension is around 27%(7). Despite such prevalent; depression in patients with hypertension got little attention(16). The association between depression and hypertension was illustrated as bidirectional and complex(17). Longitudinal findings imply that hypertension is an independent risk factor for the development of depression(18) and It is also confirmed that depression can predict the later incidence of hypertension(18,19).

Patients with hypertension are at risk of developing psychological distress, anxiety, poor cooping mechanisms and depression than general population due to different reasons like chronic burden of hypertension, symptom burden of hypertension and side effects of medications(20).

Among hypertensive population females(21), patients with other co morbid chronic physical illness(22) and elder are vulnerable group for depression(23)

Co morbid depression in hypertension leads to non adherence to anti-hypertensive treatment(24) and poor compliance to lifestyle modification which can increase risk death from complication(12,24). In addition to causing non compliance it also associated with uncontrolled blood pressure(25), poor quality of life(26) and further complications of hypertension(27).

Presence of depression will accelerate cardiovascular risk of patients with hypertension. For instance it increase the risk of having Myocardial Infarction by 2.24times(28) and also leads to poor sleep quality which predispose for other co morbid health problem(29).

When hypertensive populations compared depending on presence or absence of depression in relation to its multidirectional impact; depressed patients with hypertension suffer from increased health service utilization, lost productivity and worsening of functional disability than those who have no depression(30).

When depression in hypertension left unntreated it increase risk of patients with hypertension mortality by 2.6 fold(31) while early detection and treatment of depression in patients with hypertension is not only remit the depressive symptoms but also lead to good outcome of hypertension management as well(32).

Although the previous study reported in our country tried to identify magnitude of psychological distress there is limited report which assessed specific mental illness in patients with hypertension(33). So this study particularly focus on providing magnitude of depression and factors associated depression in patients with hypertension to contribute on knowledge gap about mental health status of patients with hypertension in our setting and to recommend concerned body accordingly.

Chapter 2: Literature review

2.1 prevalence of Depression in patients with hypertension

A systematic review and meta-analysis of 41 studies conducted in 2015 with a total population of 30,796 from North American, South American, Asian, European and African countries reported that the overall prevalence of depression in patients with hypertension was 26.8%(95% CI: 21.7% – 32.3%). The Subgroup analysis of the report shows that the average prevalence of depression in patients with hypertension was 26.3% for those from community and 27.2% for those from the hospital (7)

High magnitude of depression in patients with hypertension was reported from developed countries. A cross sectional study conducted in United State of America on 492 patients with hypertension by using Patient Health Questionnaire – 9 (PHQ-9) as screening tool with (>=10 cutoff point) indicated that 38.4% of patients with hypertension have depression(34). Similar report from Spain indicated that out 5954 patients with hypertension screened for depression 15.5 % of them had clinically significant depression (35).

A survey conducted in Bosnia in 2016 on 200 patients with hypertension in which Beck Depression Inventory one (BDI-I) used as screening tool to assess depression reported that 46% of patients with hypertension had depression(36).

A prevalence of depression in patients with hypertension was varied as reported from different Asian countries. The study conducted in Korea on 846 adult patients with hypertension in 2014 by using PHQ-9 with ≥ 10 score as the cut of score indicated that 11.2% of patients with hypertension had clinically significant depression(37). A Cross sectional study conducted in Pakistan in 2017 on 411 patients in which PHQ-9 used as screening tool(with cutoff point >=10) indicated that the prevalence of depression in patients with hypertension was 40.1 %(38)

Study report from Saudi Arabia which is a cross-sectional and conducted in 2016 on 211 patients with hypertension attending the Out-Patient Department by using the Beck Depression Inventory-II (BDI-II) scale to assess Depression level with BDI score ≥20 as cut of point revealed that 20.7% of patients with hypertension had depression(39). A study conducted in Afghanistan in 2016 on 234 adult patients with hypertension by using Hospital Based Anxiety and Depression Scales(HADS) as screening tool to assess the prevalence of anxiety and depression revealed that 58.1% of the patients with hypertension had depression(40)

A finding from Nepal which conducted in 2011 in which Depression levels were assessed by using the Beck Depression Inventory-I (BDI-I) on 321 patients with hypertension reported that 15% of the patients have depression which need clinical attention(41)

Cross sectional study done on the prevalence of depression among 432 hypertensive individuals in Medical College health unit area of urban Trivandrum, in India in 2017 using Patient health questionnaire – 9 with cutoff score ≥ 6 reported that the prevalence of depression was 33.3(42). Similar study conducted in India in 2018 on 100 patients with hypertension reported that 40% of them had depression(43).

Little is reported about the magnitude of depression in patients with hypertension in African countries. cross sectional study conducted on 400 patients with hypertension in Ghana by using Depression Anxiety stress Scale(DASS-21) reported 4% of patients have moderate to extremely severe depression(20). A cross sectional study conducted to determine psychiatric morbidity among a sample of 260 hypertensive outpatients in a teaching hospital of south Africa by using General Health Questionnaire Version 12 (GHQ-12) and Structured Clinical Interview for DSM-IV (SCID) reported that 6.2% patients was suffering from major Depressive disorder and 2.5% of them had past history of major depressive episode(44). Similar study conducted in Nigeria on 360 hypertensive patient to assess psychiatric co morbidity in patients with hypertension by using (GHQ-12) and World Health Organization composite International Diagnostic Interview(CIDI) indicated that 29.4% of the patients with hypertension had depression(45).

2.2 Factors associated with depression in patients with hypertension

2.2.1 socio-demographic factors

Many research finding indicated that socio-demographic characteristics of hypertensive individuals have association with depression. A Cross sectional Study conducted in Pakistan reported that younger age, low educational status, unemployment , low socioeconomic status are factors significantly associated with depression in patients with hypertension (38) . similar study conducted in Afghanistan reported that age greater than 60 years is a factors significantly associated with depression in patients with hypertension(40) Sex and difference in ecomomical status were also mostly reported sociodemiographic factors for their association with depression. The report from Saudi-Arabia indicated that depression have significant association with Being female, being single, being illiterate and low income(46). A cross sectional study conducted in India on 432 patients with hypertension reported that being female, low socioeconomic status, being single and low educational status are significantly associated with depression in patients with hypertension(42)

2.2.2 Clinical related factors

The cross sectional study conducted in Saudi-Arabia indicated that depression have significant association with family history of mental illness and uncontrolled Blood pressure status(46). The cross sectional study report from Pakistan revealed that family history of hypertension has significant association with depression in patients with hypertension (38). study conducted in Afghanistan reported that co morbid Diabetic Mellitus(DM) and other comorbid chronic physical illness were factors significantly associated with depression in patients with hypertension(40) and Body Mass Index(BMI) greater than or equal to 30 is also reported as it one the factor associated with depression in hypertension(47)

2.2.3 Medication related factors

A study report from Bosnia revealed that prolonged duration on antihypertensive medication was factors significantly associated with depression in patients with hypertension(36). Depression and non adherence to antihypertensive medication have frequently reported with eachother. Both single study and systematic review finding had confirmed significant association between depression and medication non adherence(24,48). The Study finding from Norway reported that taking combination of two/more antihypertensive medications at the time was the factor significantly associated with depression(49).

2.2.4 Behavioral factors

Substance use is also one of the main factor associated with depression in patients with hypertension. The finding from Nepal revealed that smoking is a factor significantly associated with depression(41). study conducted in USA on 190 patients with hypertension revealed that depressive symptoms in patients with hypertension are significantly associated with smoking and alcohol intake (12). Study report from korea reported that physical inactivity was the significantly associated with with depression in patients with hypertension(37).

2.2.4 Psychosocial factors

The study report from china indicate that low social support and living alone are psychosocial factors associated with depression in patients with hypertension(50). The study conducted in USA on 183 patients with hypertension revealed that Higher depressive symptoms scores were significantly associated with lower social support scores(51). Among patients with hypertension it is reported also as depression is also associated with higher level perceived stress of individual in daily activities and events(52).

2.3 Conceptual Framework

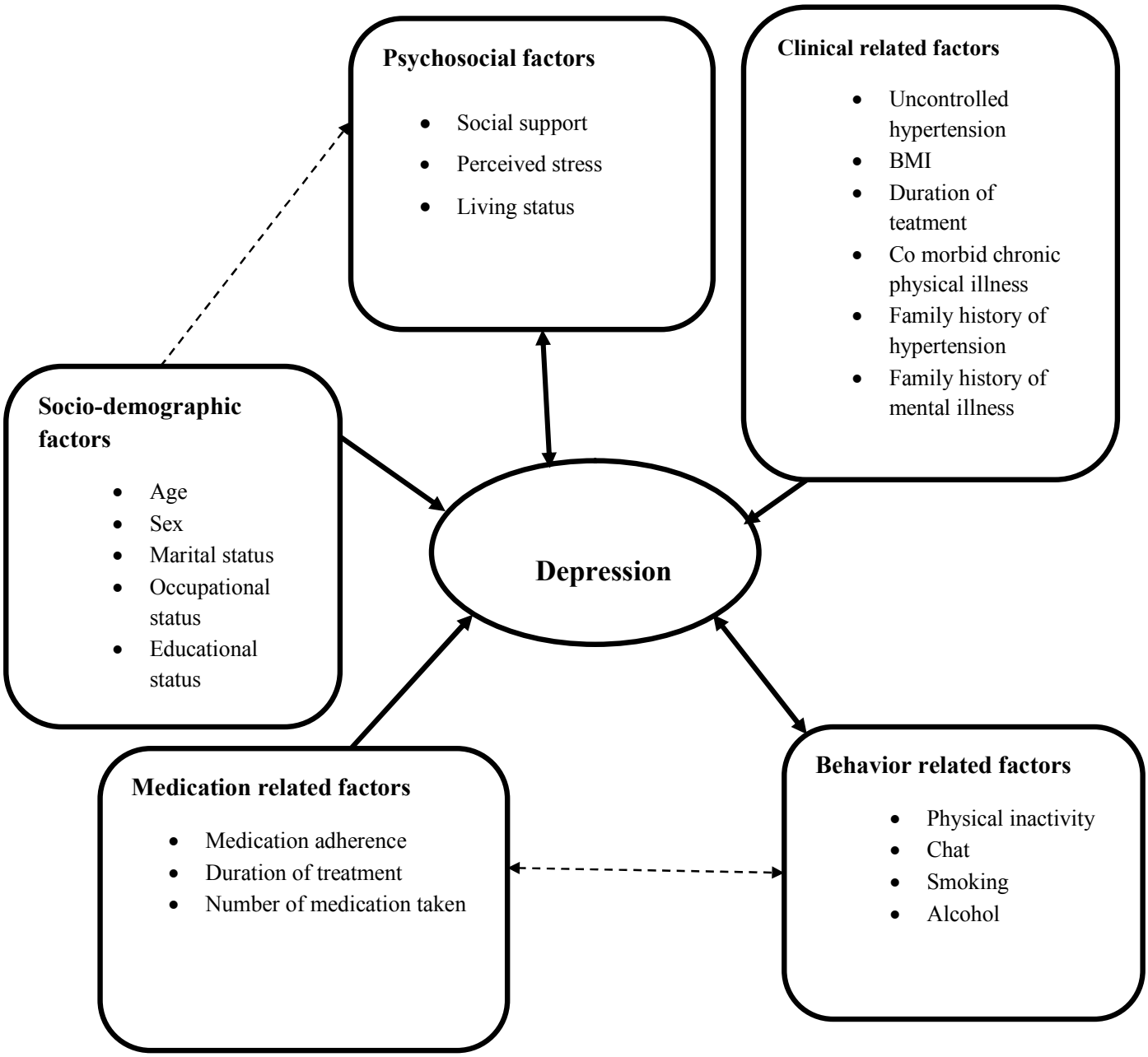

Figure 1: Conceptual frame work for factors associated with depression in patients with hypertension developed after reviewing different literatures.

2.4 Significance of the study

Depression is one of the most chronic, devastating psychiatric disorders. It affects almost all aspects of person's life including physical, economical, social and psychological wellbieng. When it occurs in patients with hypertension its impact on quality of life, patient treatment adherence, functionality, and treatment outcome will worsen. So, in order to minimize such impact screening the depression and factors associated with it in hypertensive patient is crucial. However, as far as the researcher's knowledge there is limited report about the magnitude and factors associated with depression in our country. Thus, this study is aimed to assess the prevalence and associated factors of depression among patients with hypertension.

The finding of this study will provide knowledge which can narrow the knowledge gap on mental health status of patients with hypertension in our setup and can avail knowledge for health care professional for evidence based practice. The finding of the study will also used as a input for health planners & managers and will used as base line by researchers for further study in the area.

Chapter 3: Objectives

3.1 General objective

To assess the prevalence and associated factors of depression among Patients with hypertension attending follow up treatment at Jimma University Medical Center, Jimma, south west Ethiopia, 2019

3.2 Specific objectives

To determine the prevalence of depression among patients with hypertension attending follow up treatment at Jimma University Medical Center, Jimma town, and south west Ethiopia, 2019

To identify factors associated with depression among patients with hypertension attending follow up treatment at Jimma University Medical Center, Jimma, south west Ethiopia, 2019

Chapter 4: Methods and Materials

4.1 Study area and period

The study was conducted in Jimma University Medical Center from April 15 to May 30, 2019. Jimma University Medical Center (JUMC) is found in Jimma town, Oromia regional state, Ethiopia. It far 352 km from Addis Ababa, the capital city of Ethiopia. JUMC is one of the oldest governmental hospitals, which was established in 1937 during Italian occupation for the service of their soldiers. After the withdrawal of the colonial conquerors, it has been running as public hospital under the Ministry of Health by different names at different times and currently it named as "Jimma University Medical Center". It has 450 total beds and 750 staff as both administrative & technical. It is specialized tertiary hospital providing as general health care service using its 9 medical and diagnostic departments. It provides service for at least 15 million populations residing in south-west Ethiopia. Patients with hypertension attend follow up treatment at chronic follow up clinic which established in 1991 as a separate clinic.

4.2 Study design

Hospital based cross-sectional study design was employed

4.3 Population

4.3.1 Source population

All patients with hypertension attending follow up treatment at JUMC

4.3.2 Study population

All patients with hypertension attended follow up treatment at JUMC from April 15 to May 30, 2019

4.4 Inclusion and Exclusion criteria

4.4.1 Inclusion criteria

All patients with hypertension aged 18 or above

4.4.2 Exclusion criteria

- Patients who are acutely disturbed and unable to communicate due to either physical or mental illness.
- Patients with less than 2 weeks duration of hypertension
- Patient who have already been diagnosed as the case of depression and taking antidepressant

4.5 Sample size and sampling techniques

4.5.1 Sample size determination

The minimum sample size required for this study was calculated by using single population proportion formula by assuming that 29.4% patients with hypertension have depression as study report from Nigeria(45), with 5% marginal of error (d) and 95% confidence interval (CI).

$$n = \frac{(Z_{\frac{\alpha}{2}})^2 p(1-P)}{d^2} = \frac{1.96^2 0.294 \times 0.706}{0.05^2} = 318.95$$

≈ 319

Where,

n= minimum sample size required for the study

Z= the reliability coefficient corresponding to 95% confidence level (Z=1.96)

P= proportion of depression in patients with hypertension

d= Absolute precision or tolerable margin of error (d) =5%=0.05

Then by adding 10% of non-respondent, which = 32, the total sample size for this study will be 319+ 32 = 351

4.5.2 Sampling techniques

The average number of patients with hypertension who visit the follow up treatment at JUMC chronic follow up clinic per 4weeks period of data collection was around 600. The sample size required for this study was 351. Consecutive sampling technique was used to select the sampling unit. Any hypertensive patient who fulfills inclusion criteria was invited consecutively until intended sample size fulfilled.

4.6 Study variables

4.6.1 Dependent variable

Depression status

4.6.2 Independent variables

Socio-demographic factors

- Age
- Sex
- Ethnicity
- Religion
- Marital status
- education status
- Occupational status
- Monthly income

Clinical factors

- Uncontrolled hypertension
- Family history of hypertension
- Family history of mental illness
- Presence of chronic co morbid physical illness

Medication related factors

- Medication adherence
- Duration of treatment
- Combination of antihypertensive

Behavioral factors

- Physical inactivity
- Alcohol risk level
- Tobacco risk level
- Khat risk level

Psychosocial factors

- Social support
- Living condition
- Perceived stress level

4.7 Data collection procedure and instrument

4.7.1 Data collection Instrument

Depression was assessed by using pre-tested Patient Health Questionnaires-9(PHQ-9). The PHQ-9 Is 9-item self administered or interviewer administered questionnaire designed to evaluate the presence of depressive symptoms during the prior two weeks which is validated in many developed and developing country(53,54).

The nine items of the PHQ-9 are based directly on the nine diagnostic criteria for Major depressive disorder in the Diagnostic and Statistical Manual fourth Edition (DSM-IV). The Total PHQ-9 score range from 0 (absence of depressive symptoms) to 27 (most severe Depressive symptoms). Each of the nine items can be scored from 0 (not at all) to 3(nearly every day). The scale has the potential to serve as a dual-purpose instrument that both screen for the Presence of depressive disorder and for assessing the severity of the symptoms (55). PHQ-9 is validated tool in Ethiopia and its items showed good internal(Cronbach's alpha=0.81)reliability and test re-test reliability (intraclass correlation coefficient=0.92) with (sensitivity=86% and specificity=67%)(56). The internal consistency (Cronbach's alpha) of PHQ-9 in the current study was 0.89. the Scores ≥10 signify the presence of significant depression in this study(55,56)

Morisky medical adherence scale 8 (MMAS-8) was used to assess medication adherence status of the patients. It Consists of eight items with a scoring scheme of "Yes" = 1 and "No" = 0 for each items. The items will be summed to give a range of scores. Reported Sensitivity and specificity of the 8-item scale were 93% and 53% respectively with Cronbach's alpha =0.83 which has been particularly useful in chronic conditions (57). It has become popular and commonly used in various clinical settings and different populations and is good screening and monitoring tools in clinical practice to identify and monitor the high-risk non-adherent patients(58)

Oslo - 3 Social Support Scale (OSSS-3) was used to measure the strength of social support. The scores may range from 0 (no social support at all) to 14(peak strong social support). It has three category depending on individual OSSS-3 score. The higher OSSS-3 score indicate the strong social support. The Oslo-3 scale has been confirmed the feasibility and predictive validity with respect to psychological distress(59)

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST-3.0) was used to assess alcohol, smoking and chat risk levels of the study participants. It was developed by WHO to detect psychoactive substance use and related problems in primary care patients(60).

The tool assesses the risk level of current substance use. The maximum score is 39 and risk level categorized based on the individual score for specific substance used(61).

Perceived stress Scale (PSS) was used to assess patient's percieved stress level. It is validated tool to be used in chronically ill patients to assess perceived stress level of the event or situation faced in the past one month(62). The PSS is a 10-item questionnaire to measure the self-reported level of stress in the respondents by assessing feelings and thoughts during the last month. Each item is scored from 0 (never) to 5 (very often) with a range of 0 to 40 for the total score of the scale. A higher level of stress is indicated by higher scores on this scale. Six items of the PSS-10 measure stress and 4 items measure coping strategy to stress(63). Patient's Medical history was reviewed from patient chart. Height and weight of study participants was measured and The Body Mass Index (BMI) was calculated. Socio demographic related information was collected by structured questionnaire.

4.7.2 Data collection procedure

The data was collected by face to face interview by using structured and pre-tested interviewer administered questionnaires. Four data collectors and two supervisors were employed. 3 BSc psychiatric nurse staffs and 1 BSc Clinical nurse conducted data collection for 6 weeks of data the collection periods with two supervisors. Study participants were identified by data collectors by reviewing patient medical chart. Then, data was collected from selected study participants

4.8 Operational definitions

Depressed : patients with PHQ-9 score of ≥ 10 were considered as the case of depression (64)

Status of Social support: social support status of study participant defined depending on total score of OSSS-3 in which score of 3-8 was defined as Poor social support: OSSS-3 score 9-11 as moderate social support: OSSS-3 score of 12-14 strong social support(59)

Medication Adherence status: medication adherence status of the study participants is defined based on the total MMAS-8 in wich < 6 MMAS-8 Score defined as Low Adherent; 6-7 MMAS-8 Score as Moderate adherent and 8 MMAS-8 Score as Highly adherence (57)

Perceived stress level: perceived stress level of study participants defined as Low perceived stress for 0-13 PSS score and Moderate to high perceived stress for >= 14 PSS score (62)

Alcohol risk level: defined based on total ASSISTv3 score of individual in which Low alcohol risk if ASSISTv3 score 0-10 ,Moderate alcohol risk if ASSISTSv3 score 11-26 and Severe alcohol risk if ASSISTv3 score >= 27 respectively.

Tobacco risk level: defined based on total ASSISTv3 score of individual in which Low tobacco risk if ASSISTv3 score 0-3 ,Moderate tobacco risk if ASSISTSv3 score 4-26 and Severe tobacco risk if ASSISTv3 score >= 27 respectively

Chat risk level: defined based on total ASSISTv3 score of individual in which Low chat risk if ASSISTv3 score 0-3 ,Moderate chat risk if ASSISTSv3 score 4-26 and Severe chat risk if ASSISTv3 score >= 27 respectively(61)

4.9 Data quality control

The questionnaire was prepared first in English and translated into Afaan Oromo and Amharic then back translated to English by another langage expert of Jimma University who was blinded for English version to check clarity of questionnaire. Two days Training was given for data collectors and supervisor. Pre-test was conducted on 5% of the sample size at Shenen Gibe General Hospital chronic follow up OPD to identify potential problems in data collection tools, to assess the reliability of assessment tool. The result of pretest implies good internal consistency fPHQ-9 items (cronbach alpha 0.82) and some modification was done accordingly before actual data collection period.

The supervisor and data collectors were trained for 2 days by the principal investigator before starting the data collection. Regular supervision and support was given for data collectors by the supervisor and principal investigator. Data was checked for completeness and consistency by supervisors and principal investigator on daily bases during data collection time.

4.10 data processing and analysis

The collected data was coded, edited, and entered into Epi data version 3.1 and exported to SPSS version 22.0 statistical software for analysis. Descriptive analysis like frequency distribution and cross tabulation was done. The outcome and independent variables was entered into a binary logistic regression one by one, in order to explore each independent variable association with outcome variable. Finally multivariate logistic regression was computed for some of independent variables taken from the bivariate analysis. In this study independent variables with $p < 0.25$ were selected as candidate for further analysis to identify factors independently associated with outcome variable in the final model. Adjusted odd ratio (AOR) with 95% confidence interval was computed and Statistical significance was set at p-value of < 0.05 in the final multiple logistic regression models.

4.11 Ethical consideration

The ethical approval of the study was obtained from the Institution Review Board of Jimma University, Institute of health. Official letter was written to the hospital administration. Verbal consent was obtained from the study participants. Data collectors put their signature for they could obtain verbal consent for the interview from the respondents. Confidentiality of the information was assured and privacy of the respondents was maintained. The participant's right to refuse or to withdraw from the study at any stage of interview process was respected. The study participant right to ask any question about the study and to get answer was respected. Patients reported suicidal ideation during data collection was linked to psychiatric clinic for further evaluation and treatment.

4.12 Dissemination plan

The results of the study will be submitted to Jimma University Faculty of Medicine, Institute of Health and the copies of papers also submitted to hospital administration of JUMC department of psychiatry and to JUMC administrative office. The research paper will be presented in health professional organizations, annual meetings, professional conferences and trainings. Finally, effort will be made to publish results in national and international journal

Chapter Five: Results

5.1 sociodemographic characteristics of study participants

Tolal of 344 patients actually responded for interview which yields a response rate of 98%. The mean age of study participants was 47.65 with SD ±13.45 years. Out of the total respondents 177(51.5%) were females. Regarding the religious affiliation most of the study participants, 221(64.2) were Muslim. The median and interquartile range of monthly income of study participants were 1000 and 600 Ethiopian birr. Out of the total study participants 237(68.9%) were married and 70(20.3%) were wedowed. Regarding the educational status 141(41%) of study participants have no formal education (table1).

Table 1: sociodemographic characteristics of patients with hypertension attending follow up treatment at JUMC, 2019(N=344)

variables	Categories	Frequency(N=344)	Percentage (%)
Age	18- 39	99	28.8
	40 – 60	158	45.9
	>60	87	25.3
Sex	Male	167	48.5
	Female	177	51.5
Religion	Muslim	221	64.2
	Orthodox	86	25
	Protestant	22	6.4
	Others*	15	4.4
Marital status	Married	237	68.9
	Divorced	70	20.3
	Widowed	26	7.6
	Single	11	3.2
Ethnicity	Oromo	224	65.1
	Amhara	65	18.9
	Kafa	29	8.4
	Gurage	20	5.8
	Others**	6	1.7

Residence	Rural	201	58.4
	Urban	143	41.6
Educational status	No formal education	141	41.0
	Primary education	101	29.4
	Secondary education	39	11.3
	College and above	63	18.3
occupational status	Farmer	113	32.8
	Merchant	50	14.5
	Daily labor	46	13.4
	Gov't employed	54	15.7
	Housewife	52	15.1
	Jobless	21	6.1
	Others***	8	2.3
Monthly income	<750	121	35.2
	750 - 1050	75	21.8
	1051 - 2500	57	16.6
	>2500	91	26.5

*Key: *waqefata, Jehova Witness and Catholic **Tigre, dawro and wolayita *** retired and students*

5.2 Clinical characteristics of study participants

The mean systolic blood pressure (SBP) of the study participants was 135.49 with SD ± 20.37mmHg and the mean DBP of the study participants was 88.89 with SD ± 15.58mmHg. More than half, 186(54.1%) ,of study participant's Blood pressure status was controlled. Out of the total study participants 233(67.7%) have normal BMI status. Majoriy of the study participants 228(66.3%) had no family history of hypertension. From the total study participants 232(67.4%) have no diagnosed co morbid chronic medical illness (table 2).

Table 2: clinical related characteristics of patients with hypertension attending follow up treatment at JUMC, chronic follow up chlinic, 2019(N=344)

variables	Categories	Frequencies(N=344)	Percentages (%)
Current Blood pressure status	Controlled	186	54.1
	Not controlled	158	45.9
Duration of hypertension	< 5 years	191	55.5
	5-10 years	71	20.7

	>10 years	92	26.8
BMI status	< 18.5	15	4.4
	18.5-24.9	233	67.7
	>=25	96	27.9
Family history of hypertension	Yes	116	33.7
	No	228	66.3
Family history of mental illness	Yes	96	27.9
	No	248	72.1
chronic physical illness Comorbidty	Yes*	112	32.6
	no	232	67.4

*Key:*DM, Mayocardial Infraction, Thyrotoxicosis, Ischemic Heart Disease, chronic heart desease and chronic kidney disease*

5.3 Medication related characteristics of study participants

Out of the total study participants 204(58.4%) patients were receiving combination of two or more antihypertensive medications. Out of the total study participants 136(39.5%) had low adherent for medication and 201(58.4%) stayed on treatment for less than 5 years (table 3)

Table 3: medication related characteristics of adult patients with hypertension attending follow up treatment at JUMC, chronic follow up chlinic, 2019(N=344)

Variables	Categories	frequencies	Percentages (%)
No antihypertensive taken	One	140	40.7
	Two/more	204	59.3
Duration on treatment	<5 years	201	58.4
	5-10 years	107	31.1
	>10 years	36	10.5
Medication adherence	low	136	39.5
	medium	88	25.6
	high	120	34.9

5.4 Psychosocial characteristics of study participants

Most of study participants 233(67.7%) live with their spouse while 58(16.8%) live alone. Out of total study participants 194(56.4%) had low perceived stress level and 168(48.8%) had poor social support (table 4)

Table 4: distribution of psychosocial characteristics among adult Patients with hypertension attending follow up treatment at JUMC chronic follow up chlinic, 2019(N=344)

variable	categories	Frequency(N=344)	Percentage (%)
Living condition	With spouse	233	67.7
	With family	28	8.1
	With fiends	25	7.3
	alone	58	16.9
Perceived stress level	low	194	56.4
	Moderate to high	150	43.6
Social support status	poor	168	48.8
	moderate	48	14.0
	strong	68	37.2

5.5 Behavioral characteristics of study participants

Majority of the study participants 192(55.8) didn't do moderate to vigorous physical activity minimum for 30 minute at least 5 days per week. Out the total study participant 25(7.3%) have severe alcohol risk and 16(4.7%) had severe risk tobacco risk and 43(13.7%) had severe chat risk (table 5)

Table 5: behavioral characteristics among adult patients with hypertension attending follow up treatment at JUMC, 2019(N=344)

Variables	categories	Frequency(N=344)	Percentages (%)
Physical activity	yes	152	44.2
	no	192	55.8
Alcohol risk level	no	264	76.7
	mild	29	8.4
	moderate	26	7.6
	severe	25	7.3
Tobacco risk level	no	288	83.7

	mild	15	4.4
	moderate	25	7.3
	severe	16	4.7
Chat risk level	no	237	68.9
	mild	28	8.1
	moderate	32	9.3
	severe	47	13.7

5.6 Prevalence and severity of depression in study participants

The study participant's depression status and its severity were assessed by Patient Health Questionnaire 9(PHQ-9) and the prevalence of depression in the study participants was 38.1% (95% CI: 33.1, 43.6) (figure 2). Regarding depression severity out of the total study participants 83(24.1%), 27(7.8%) and 21(6.1%) study participants were found to have moderate, moderately severe and severe depression respectively (figure 3)

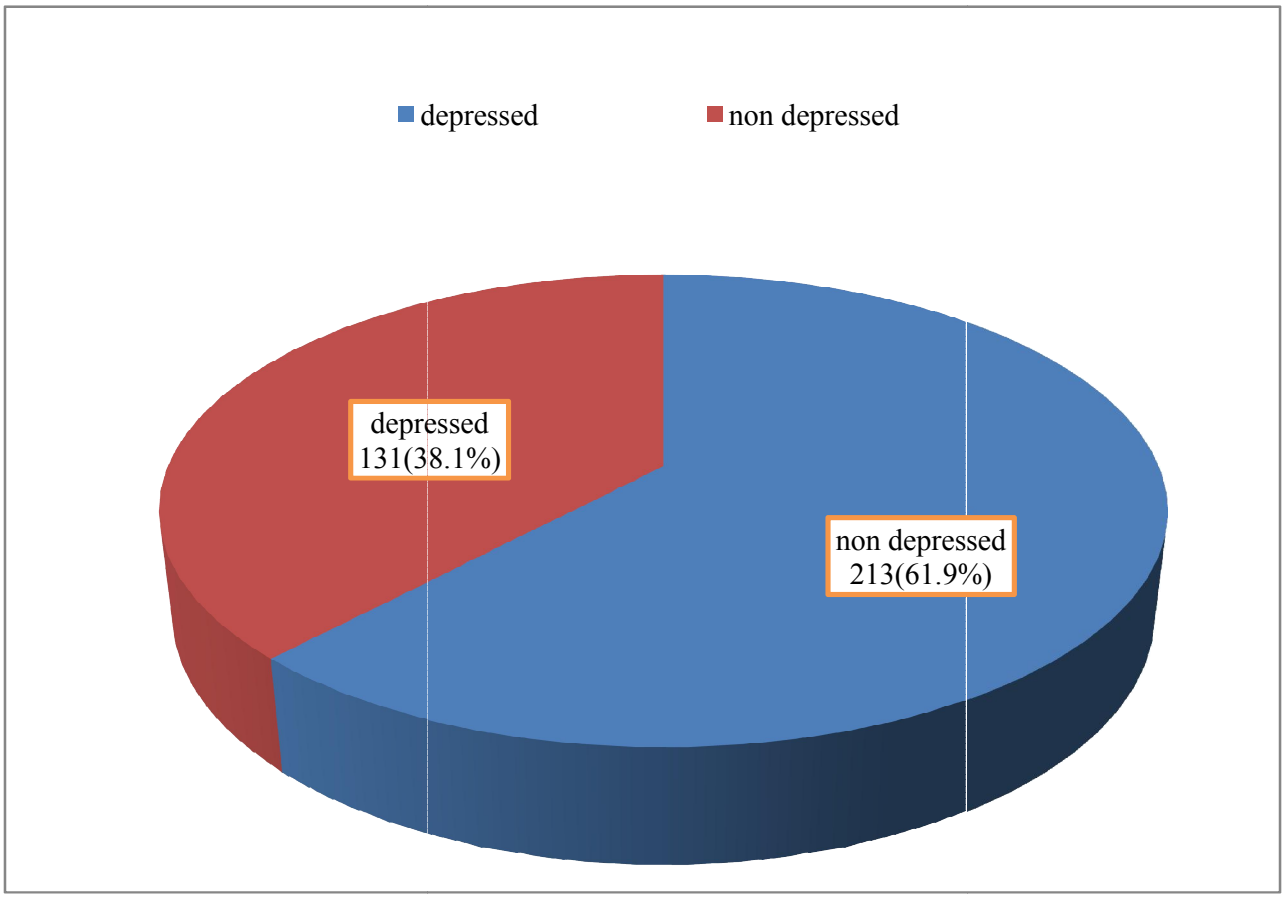

Figure 2 prevalence of depression among hypertensive patiends attending follow up treatment at JUMC, 2019(N=344)

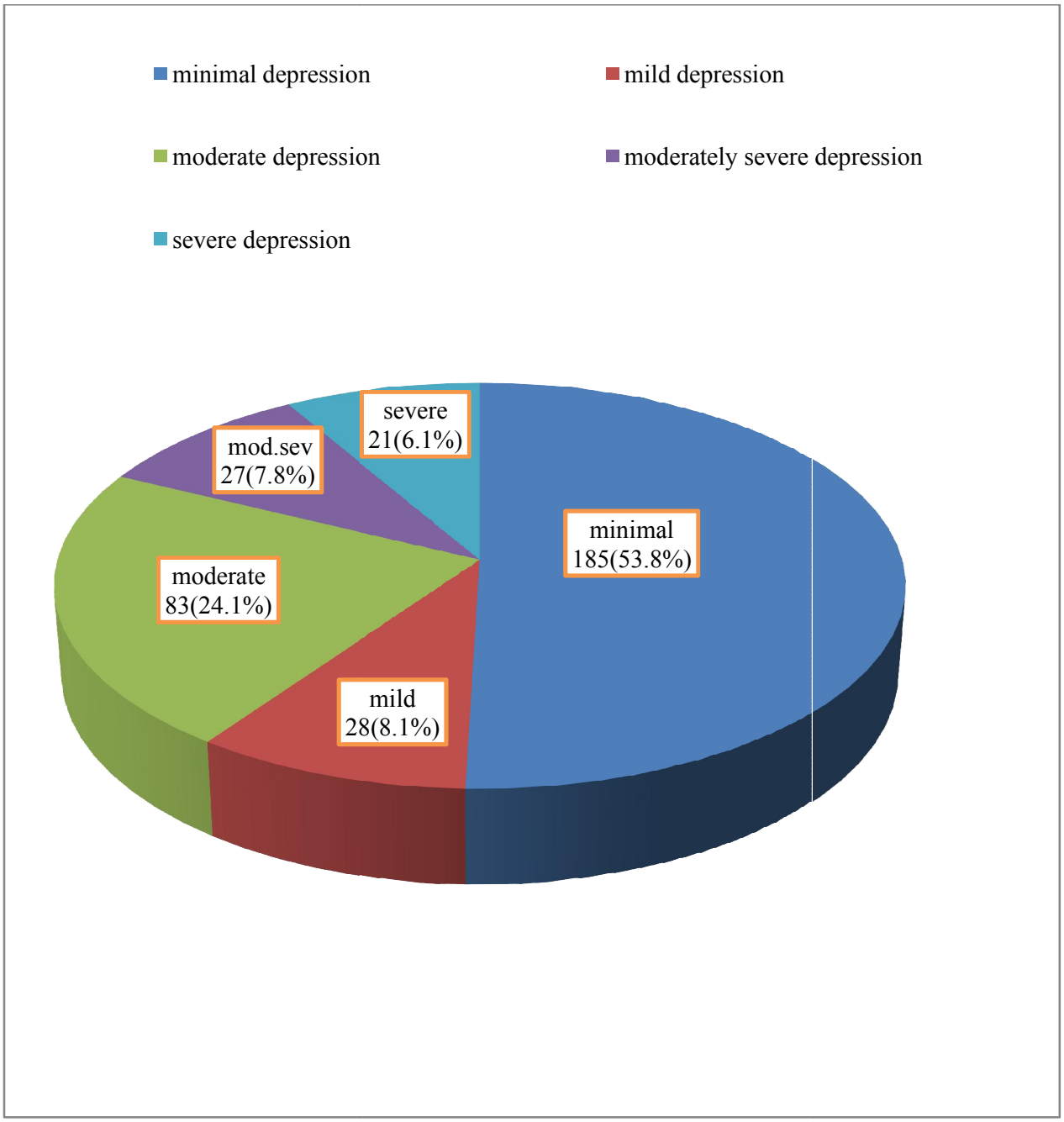

Figure 3 severity status of depression among patients with hypertension attending follow up treatment at JUMC, 2019(N=344)

5.7 Factors associated with depression

During bivariate analysis of outcome variable in relation to each explanatory variables; being female, 40-60 age category, living alone, taking combination of two/more antihypertensive medication at a time, greater than 10 years stay on treatment, uncontrolled blood pressure status, BMI status ≥ 25, presence of co morbid chronic medical illness, family history of hypertension, family history of mental illness, low medication adherence, poor social support, moderate to high perceived stress level, physical inactivity, moderate & severe alcohol risk level, mild & moderate tobacco risk level and chat risk level were variables that fulfilled the minimum requirement (in this study p value < 0.25 level of significance) for further analysis and entered into multivariate analysis (table 6)**.**

Multicollinearity test was done for variables those fulfill minimum required value of significance for further analysis by using variation inflation factor (VIF) and tolerance. Duration of hypertension was exluded due to greater than 10 VIF and less than 0.1 tolerance.

The result of multivariate analysis shows that depression was significantly associated with low medication adherence (AOR=3.04; 95% of CI: 1.45,6.38), having comorbid chronic physical illness (AOR=4.14; 95%CI: 2.01,8.56), having family history of hypertension (AOR=3.52; 95% of CI: 1.72,7.21), having poor social support(AOR=4.22; 95% of CI: 1.96,9.11), having moderate to high perceived stress(AOR=5.92;95%CI: 3.01,11.64) and stay on treatment for greater than 10 years(AOR=3.74; 95%CI: 1.21,11.58) (table 7).

The odds of having depression among patients with low adherence is 3 times (AOR=3.04; 95% CI: 1.45, 6.38) higher as compared to patients with high adherence. The odds of having depression among patients with co morbid chronic medical illness is 4 times (AOR=4.14; 95%CI: 2.01, 8.56) higher as compared to those patients who had no comorbidty.

Patients who have family history of hypertension are 3.5 times more likely to have depression (AOR=3.52; 95% of CI: 1.72, 7.21) compared to those who have no family history of hypertension. Patients who have moderate to high perceived stress level have 5.92 times (AOR=5.92; 95%CI: 3.01, 11.64) more likely to have depression compared to those patients who have low perceived stress. The odds of having depression among patients with poor social support is 4.22 times (AOR=4.22; 95% of CI: 1.96, 9.11) higher compared to those patients who have strong social support. The odds of having depression in patients stayed on treatment for more than 10 year is 3.74 times (AOR=3.74; 95%CI: 1.21, 11.58**)** higher compared those who stayed on treatment for less than five years (table 7).

Table 6: Bivariate analysis of factors associated with depression among patients with hypertension attending follow up treatment at JUMC, chronic follow up chlinic, 2019(N=344)

Explanatory variables		Depression status		COR(95% CI)	P-Value
		Yes n (%)	No n (%)		
Age	18-39	30(22.9)	69(32.4)	1	
	40-60	68(51.9)	90(42.2)	1.7(1.02,2.96)	0.042*
	>60	33(25.2)	54(25.4)	1.4(0.76,2.58)	0.273
Sex	Male	43(32.8)	124(58.2)	1	
	female	88(67.2)	89(41.8)	2.85(1.81,4.49)	0.000*
Education	No formal	53(40.5)	88(41.3)	0.80(0.44,1.47)	0.472
	primary	43(32.8)	58(27.2)	0.99(0.52,1.86)	0.972
	secondary	8(6.1)	31(14.6)	0.34(0.13,0.87)	0.024*
	College	27(20.6)	36(16.9)	1	
residence	Rural	124(58.2)	77(58.8)	1	
	Urban	89(41.8)	54(41.2)	0.97(0.62,1.52)	0.918
Treatment duration	<5 years	62(47.3)	139(65.3)	1	
	5-10 years	41(31.3)	66(31.0)	1.39(0.85,2.27)	0.186
	>10 years	28(21.4)	8(3.8)	7.84(3.38,18.19)	0.000*
antihypertensive combination taken at a time	no	31(23.7)	109(51.2)	1	
	yes	100(76.3)	104(48.8)	3.38(2.08,5.48)	0.000*
BP Status	Controlled	43(32.8)	143(67.1)	1	
	Not controlled	88(37.2)	70(32.9)	4.181(2.63,6.66)	0.000
BMI status	<18.5	5(3.8)	10(4.7)	1.24(0.40,3.76)	0.705
	18.5-24.9	67(51.1)	166(77.9)	1	
	>=25	59(45.0)	37(17.4)	3.95(2.34,6.51)	0.000
Duration of hypertension	< 5years	62(47.3)	129(60.6)	1	
	5-10	17(13)	54(25.4%)	0.65(0.35,1.22)	0.184
	>10 years	52(39.7)	30(14.0)	3.606(2.10,6.20)	0.000*
Co morbid	Yes	78(59.5)	34(16.0)	8.87(5.30,14.84)	0.000*

chronic physical illness	No	53(40.5)	174(84.0)	1	
Family history of hypertension	Yes	83(63.4)	33(15.5)	9.43(5.04,15.77)	0.000*
	No	48(36.6)	180(84.5)	1	
Family history of mental illness	Yes	72(55.0)	24(11.3)	9.61(5.56,16.60)	0.000*
	No	59(45.0)	189(88.7)	1	
Living condition	spouse	75(57.3)	158(74.2)	1	
	family	12(9.2)	16(7.5)	1.58(0.71,3.50)	0.261
	friend	10(7.6)	15(7.0)	1.40(0.60,3.27)	0.431
	Alone	34(26.0)	24(11.3)	2.98(1.65,5.38)	0.000*
Perceived stress level	Low	28(21.4)	166(77.9)	1	
	Moderate to high	103(78.6)	47(22.1)	12.99(7.65,22.04)	0.000*
Social support	Poor	103(78.6)	65(30.5)	8.07(4.60,14.15)	0.000*
	moderate	7(5.3)	41(19.2)	0.87(0.34,2.20)	0.769
	strong	21(16.0)	107(50.3)	1	
adherence	Low	91(69.5)	45(21.1)	5.56(3.24,9.54)	0.000*
	moderate	8(6.1)	80(37.6)	0.27(0.12,0.63)	0.002*
	High	32(24.4)	88(41.3)	1	
Physically activite	Yes	63(48.1)	89(41.8)	1.29(0.83,2.00)	0.253
	No	68(51.9)	124(58.2)	1	
Alcohol risk level	No	91(69.5)	173(81.2)	1	
	Low	12(9.2)	17(8.0)	1.34(0.61,2.93)	0.461
	moderate	15(11.5)	11(5.2)	2.59(1.14,5.97)	0.023*
	severe	13(9.9)	12(5.6)	2.06(0.90,4.69)	0.086*
Tobacco risk level	No	102(77.9)	186(89.3)	1	
	Low	3(2.3)	12(5.6)	0.45(0.12,2.93)	0.232*
	moderate	19(14.5)	6(2.8)	5.77(2.23,14.91)	0.000*
	severe	7(5.3)	9(4.2)	1.41(0.51,3.92)	0.501
Chat risk level	No	79(60.3)	158(74.2)	1	
	Low	14(10.7)	14(6.6)	2.00(0.90,4.40)*	0.085*
	moderate	17(13.0)	15(7.0)	2.26(1.076,4.77)	0.031*
	severe	21(16.0)	26(12.2)	1.61(0.85,3.05)	0.139*

Table 7 Multivariate analysis result for factors associated with depression among patients with hypertension attending follow up treatment at JUMC, chronic follow up chlinic, 2019

covariates	category	Depression status		AOR (95%CI)	P -value
		yes	no		
Adherence status	low	91(69.5)	45(21.1)	**3.04(1.45,6.38)**	**0.003****
	moderate	8(6.1)	80(37.6)	0.48(0.16,1.12)	0.136
	high	32(24.4)	88(41.3)	1	
Treatment duration	<5 yrs	62(47.3)	139(65.3)	1	
	5-10 yrs	41(31.3)	66(31.0)	1.34(0.64,2.83)	0.430
	>10 yrs	28(21.4)	8(3.8)	**3.74(1.21,11.58)**	**0.022****
Comorbidty of chronic physical illness	yes	78(59.5)	34(16.0)	**4.14(2.01,8.56)**	**0.000****
	No	53(40.5)	174(84.0)	**1**	
Family hx of HTN	yes	83(63.4)	33(15.5)	**3.52(1.72,7.21)**	**0.001****
	no	48(36.6)	180(84.5)	1	
Perceived stress level	low	28(21.4)	166(77.9)	1	
	Moderate-high	103(78.6)	47(22.1)	**5.92(3.01,11.64)**	**0.000****
Social support status	poor	103(78.6)	65(30.5)	**4.22(1.96,9.11)**	**0.000****
	medium	7(5.3)	41(19.2)	0.89(0.26,3.08)	0.86
	good	21(16.0)	107(50.3)	1	

*Key: 1:reference; **Statistical significance at p-value<0.05; Hosmer and lemeshow test:* ***0.64***

Chapter Six: Discussion

The prevalence of depression in the current study was 38.10%(with 95% CI:32.50,43.60) which is supported by prevous study reported from United State of America (38.4%)(34), India(40%)(43) and pakistan (40.1%)(38). The finding of the prevalence of depression of this study was lower than some of previous study reported from Bosnia(46%)(36) and Afganistan(58.1%)(40) . The possible reason for difference may be due to different depression screening tool used with different cut of score in which the current sudy used cut of score which didn't include mild depression. In study reported from Bosnia depression was screened with Beck Depression Inventory (BDI) while hospital anxiety and depression scale (HADS) was used in study reported from Afgahanistan.

The prevalence of depression in this study is much higher than the previous study report from South Africa (6.2%)(44) and Nigeria (29.4%)(45). The discrepancy may be due to used different clinical rating tool in which two stages assessing step (both screening and diagnostic tools) is used in study. The study reported from south Africa conducted in the way of administering General Health Quessionaire 12(GHQ-12) first which followed by semistructured clinical interview of diagnostic statistical manuals of mental disorders (SCID). The patient who becomes positive for GHQ-12 interviewed with SCID. In similar way in the study conducted in Nigeria first GHQ-12 was administered for self report and interview was followed by using WHO Composite International Diagnostic Interview (CIDI) for those who were positive on GHQ-12.

In addition the prevalence of depression in this study is higher than the previous study report from spain(15.5%)(35) and Saudi Arabia(20.7%)(39). In case study report from Spain the diagnosis of depression was made by DSM-IV criteria by face to face interview which indicate accurate diagnosis of depression than the current study and may be due to different socioeconomic status of study participants. The study report from Saudi Arabia in similar way use different depression assessing tool and majority of the study participants was male (60.2%) while majority of the current study participants was female which can couse differce in prevalence of depression.

After adjusting for potential confounder the multivariate analysis of this study indicated that being low adherent to antihypertensive medication becomes significantly associated with depression (AOR=3.04; 95% CI: 1.45, 6.38). This may indicate non adherence to antihypertensive medication which can leads to prolonged duration of the illness, complication of the illness which increase the risk of having depression.in other way it may indicate early manifestation of depression which leads lack of interest to give value for things and lack of initiation to do something in regular basis. This finding is supported with report from USA(24) and Korea(48).

The finding of this study indicates that the odds of having depression among patients who had diagnosed co morbid chronic medical illness is 4 times (AOR=4.14; 95%CI: 2.01, 8.56) higher as compared to those patients who had no comorbidty. This may be due to the fact that physiological change , symptom burden and functional impairment from multiple chronic illness which play vital role in development of depression(31). This finding is consistent with the previous study reported from Afganistan(40).

The odds of having depression among patients with poor social support is 4 times (AOR=4.22; 95% CI: 1.96, 9.11) higher compared to those patients who have good social support. This finding is supported with prevous study report(51). This may be due to being with poor social support is prone to have low self-esteem, negative emotional reaction to life stressors and poor coping mechanism which increase the likelyhood of having depression(65).

Patients who have family history of hypertension are 3.5 times morelikely to have depression (AOR=3.52; 95% of CI: 1.72, 7.21) compared to those who have no family history of hypertension. This may be due to the genetic interaction between depression and hypertantion which can run in the family(17). This finding is supported with study reported from Pakistan (38).

Those patients who have moderate to high perceived stress have 5.9 times (AOR=5.92; 95%CI: 3.01, 11.64) more likely to have depression compared to those patients who have low perceived stress. This may be due to the fact that individuals degree of perception for events wether it is stress full or not and loss of feeling that the situation is out of their control increase the individuals risk of developing depressive illness(66). This finding is inline with the prevous report(52). According to finding of this study being stay on treatment for more than 10 years is significantly associated with dapression (AOR=3.74; 95%CI: 1.21, 11.58). This may be due to symptom burdens of hypertation and due to antihypertensive long term use which can leads to depressive symptoms as side effect. This result is consistent with previously reported study(36).

The prevous study finding indicated that significant association between being female and depression in hypertensive population(42,46). When compared to this study finding despite high prevalence of depression in females 88(25.50%) than male 43(12.50%) and indicated association on bivariate analysis it indicated insiginificant association on the final model analysis. This finding is inline with prevous study from afganistan and Nepal (40,41).

Strength and Limitation of the Study

Strength of the study

In this study depression was screened by PHQ-9 which standard and validated tool in Ethiopia. Inaddition to these standard tools like Oslo Social Support scale-3, Persieved Stress Scale, Moriskky Medication Adherence Scale-8 and The Alcohol, Smoking and Substance Involvement Screening Test version 3 was used to assess explanatory variables which increase the quality of assessment.

Limitation of the study

This study has its own limitation. The study design in this study was cross sectional which cannot indicate cause and effect relationship between outcome and independent variables.

Chapter 7: Conclusion and Recommendation

7.1 Conclusion: the finding of this study indicated that high prevalence of depression in patients with hypertension. Low medication adherence, having comorbid chronic medical illness, having family history of hypertension , poor social support, having moderate to high perceived stress level and having stayed on treatment for more than 10 years were e variables become signinifantly associated with depression in this study. It is good alarm to be alert to give attention on ruitine screening of depression in patients with hypertension and to give special concern for patients with above stated factors.

7.2 Recommendations

To Jimma University Medical center chronic follow up clinic:

It is better if there is strong referral linkage with psychiatry clinic for further evaluation and Intervention of hypertensive patients with suspected for depression

It is better if health education given for patients about medication adherence

It is better if stress coping mechanisms training was arranged for hypertensive patients

It is better if patients with hypertension who have comorbid chronic physical illness treated early

Strong consultation and referral system between chronic follow up clinic and Psychiatric clinic should present for early identification and treatment of depression in patients with hypertension

Health education program regarding depressivesymptoms should be given for patients with hypertension

To Jimma University Medical Center:

Training programs should be arranged for all health care providers working in chronic follow up clinic, about depression and how to screen with collaboration of ministry of health.

To department of psychiatry

It is better if psychiatric professional assigned to JUMC chronic follow up clinic

To ministry of health

It is better if depression screening tools will prepared and distributed for hospitals health professionals who are working at chronic illness follow up clinic

It is better if training will given for health care professional on how to use the provided screening tool

To researchers:

It is better if longitudinal study was conducted to establish cause and effect relationship by using depression diagnostic tool

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Appendices

Annex I: Information sheet

Name of institution: Jimma University

Dear Participant my name is_____. I hereby on the behalf of Elias Nigusu who is a student undertaking a Master's Degree in ICCMH at JU. The research is one of the requirements for the study and this letter serves to ask consent from you to take part in this research. The purpose of this study is to assess the prevalence of depression and associated factors among adult patients with hypertension attending follow up treatment at JUMC. Depression is common among people with hypertension and other chronic physical illness. The data will be an important input for clinicians, patients and institutions to solve related problems. Your participation in this research is voluntary. Your participation in this study is very important for the achievement of the study and there is no any risk that will come to you because of your participation in this study. If you decided not to participate in the study there is no negative consequences for you. You have full right to withdraw at any time in-between from the interview if you don't wish to continue. All your responses and results obtained will be kept confidential. Without your permission and other legal body's permission, any information will not be disclosed to the third person. You are not expected to give your name or phone number. The interview will take about 30minutes. If you are willing to participate in this study, you need to understand and sign the agreement form, and then you will be asked to give your responses to data collectors.

Annex II: Informed consent form

Are you voluntary to participate in the study? Yes ☐ No ☐

I hereby confirm that I understand the contents of this document and the nature of the research project, and I give consent to participating voluntarily in the research project. I understand that I am autonomous to withdraw from the project at any time.

Signature of participant_____ date_____

Name and signature of data collector_____ Date_____

Name and signature of supervisor_____ Date_____

Name of investigator: Elias Nigusu; **phone: +251917860840; email: elishangs12@gmail.com**

Annex III: Questionnaire English Version

SECTION I: SOCIO-DEMOGRAPHIC INFORMATION

S. No	Questionnaires	Alternative response
Q-1	Age	---------- in year
Q-2	Sex	1. Male 2. Female
Q-3	Religion	1. Muslim 2. Orthodox 3. Protestant 4. Catholic 5. Other----------
Q-4	marital status	1. Married 2. Divorced 3. Widowed 4. single
Q-5	Ethnicity	1 Oromo 2. Amhara 3.Dawuro 4. Gurage 5. Other_____
Q-6	Residence	1. Rural 2. Urban
Q-7	educational status	1. Can't write and read 2. 1-4 Grade 3. 5-8 grade 3. 9-10 grade 4.College & above
Q-8	Occupation	1. Farmer 2. Merchant 3. Daily laborer 4. Gov't employee 5. Housewife. 6. Jobless 7. Student 8. other _____
Q-9	average monthly income	
Q-10	With whom do you live?	1. With spouse 2. With family 3. With friends 4. Alone

SECTION II: CLINICAL AND MEDICATION RELATED QUESTIONNAIRE

S.N	Questions	
Q-11	What is the Duration of your illness? (review patient's chart)	
Q-12	What medication the patient is taking? (review patients chart)	
Q-13	For how many months a patient stay on treatment? (review from patient's chart)	
Q-14	Have you history of hospital admission due to hypertension?	1. Yes 2. No
Q-15	Current Blood pressure of the patient(take the recent record)	
Q-16	Height of the patient	
Q-17	Weight of the patient	
Q-18	Family history of hypertension	1. Yes 2. No
Q-19	Family history of mental illness	1. Yes 2. No
Q-	Diagnosed chronic medical illness rather	1.Hypertensive heart disease

20	than hypertension (check from patient chart which diagnosed by clinician/physician during follow up treatment)	2. Myocardial infarction 3. Peripheral arterial disease 4. Stroke 5. retinopathy 6. Chronic kidney disease

SECTION III: DEPRESSIVE SYMPTOMS RELATED QUESTIONNAIRE (PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems?					
		Not at all	Several days	More than half the days	Nearly every days
PHQ1	Little interest or pleasure in doing things	0	1	2	3
PHQ2	Feeling down, depressed, or hopeless	0	1	2	3
PHQ3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
PHQ4	Feeling tired or having little energy	0	1	2	3
PHQ5	Poor appetite or over eating				
PHQ6	Feeling bad about yourself or that you are a failure or have let yourself or your family down	0	1	2	3
PHQ7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
PHQ8	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
PHQ9	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

SECTION IV: PERCEIVED STRESS LEVEL RELATED QUESTIONNAIRE (PSS)

s.no	Questions	Never	almost never	Some times	Fairly often	Very often
PS1	In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
PS2	In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4

PS3	In the last month, how often have you felt nervous and stressed?	0	1	2	3	4
PS4	In the last month, how often have you felt confident about your ability to handle your personal problems?	4	3	2	1	0
PS5	In the last month, how often have you felt that things were going your way?	4	3	2	1	0
PS6	In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
PS7	In the last month, how often have you been able to control irritations in your life?	4	3	2	1	0
PS8	In the last month, how often have you felt that you were on top of things?	4	3	2	1	0
PS9	In the last month, how often have you been angered because of things that happened that been outside of your control?	0	1	2	3	4
PS10	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

SECTION V: SOCIAL SUPPORT RELATED (OSS-3) QUESTIONNAIRE

S.N	questions ask about how you experience your social relationships	
OSS 11	How many people are so close to you that you can count on them if you have serious personal problems	1. None 2. one to two 3. three to five 4. six or more
OSS 12	How much concern do people show in what you are doing	1. no concern and interest 2. little concern and interest 3. uncertain 4. some concern and interest 5. A lot of concern and interest
OSS 13	How easy is it to get practical help from neighbors if you should need it	5. very easy 4. easy 3. possible 2. difficult 1. Very difficult

SECTION VI: MEDICATION ADHERENCE RELATED QUESTIONNAIRE

	Questions	Yes	No
MM1	Do you sometimes forget to take your medicine?	0	1
MM2	Over the past 2 weeks, were there any days when you did not take your medicine?	0	1
MM3	Have you ever cut back or stopped taking your medicine without telling your doctor because you felt worse when You took it?	0	1
MM4	When you travel or leave home, do you sometimes forget to bring along your medicine?	0	1
MM5	Did you forget to take all your medicines yesterday?	0	1
MM6	When you feel like your symptoms are under control, do you Sometimes stop taking your medicine?	0	1
MM7	Taking medicine every day is a real inconvenience for some people. Do you ever feel hassled about sticking to your treatment plan?	0	1
MM8	How often do you have difficulty remembering to take all your medicine?	1: Never 0 : Once in awhile , Sometimes, Usually, All the time	

SECTION VII: SUBSTANCE- USE RELATED QUESTIONNAIRE (ASSIST V3.0)

AS1	In your life, which of the following substances have you ever used?*(non-- medical use only)*	**yes**	**No**
	Alcohol(arake, tella, beer, wine, spirits)	3	0
	Tobacco(cigarettes, chewing tobacco, cigars, etc)	3	0
	Chat	3	0
	Cannabis(marijuana, pot, grass, hash,etc	3	0
	Other –specify	3	0
If answer is no for question **AS1** skip the next question **and go to section VIII**			

AS2	If yes for question AS1 In the past 3 months how often do you use the substance you mentioned?	Never	Once/twice	monthly	weekly	Daily/almost daily
	Alcohol	0	2	3	4	6
	Cigarette	0	2	3	4	6
	Chat	0	2	3	4	6
	Cannabis	0	2	3	4	6
	Other –specify	0	2	3	4	6
AS3	Q3. The past three months how often have you had a strong desire or urge to	Never	Once/tw	monthly	weekl	Daily/almo

	use (first drug, second drug, etc)?		ice		y	st daily
	Alcohol	0	2	3	5	6
	Cigarette	0	2	3	5	6
	Chat	0	2	3	5	6
	Cannabis	0	2	3	5	6
	Other –specify	0	2	3	5	6

AS4	During the past three months, how often has your use of (FIRST DRUG, SECOND DRUG, ETC) led you to health, social, legal or financial problems?	Never	Once/twice	monthly	weekly	Daily/almost daily
	Alcohol	0	4	5	6	7
	Cigarette	0	4	5	6	7
	Chat	0	4	5	6	7
	Cannabis	0	4	5	6	7
	Other –specify	0	4	5	6	7
AS5	During the past three months, how often have you failed to do what was normally expected of you because of your use of (FIRST DRUG, SECOND DRUG, ETC)?	never	Once/twice	monthly	weekly	Daily/almost daily
	Alcohol	0	5	6	7	8
	Cigarette	0	5	6	7	8
	Chat	0	5	6	7	8
	Cannabis	0	5	6	7	8
	Other –specify	0	5	6	7	8

AS6	Has a friend or relative or anyone else ever expressed concern about your use of (FIRST DRUG, SECOND DRUG, ETC.)?	never	Yes in the past 3 months	Yes but not in the past 3 months
	Alcohol	0	6	3
	Cigarette	0	6	3
	Chat	0	6	3

	Cannabis	0	6	3
	Other –specify	0	6	3
AS7	Q7. Have you ever tried and failed to control, cut down or stop using (FIRST DRUG, SECOND DRUG, ETC.)?	Never	Yes in the past 3 months	Yes but not in the past 3 months
	Alcohol	0	6	3
	Cigarette	0	6	3
	Chat	0	6	3
	Cannabis	0	6	3
	Other –specify	0	6	3

Key: optional response for AS2-AS5 questions ***Never:*** *not used in the last 3 months* ***Once or twice****: 1 to 2 times in the last 3 months.* ***Monthly:*** *1 to 3 times in one month.* ***Weekly:*** *1 to 4 times per week.* ***Daily or almost daily****: 5 to 7 days per week.*

SECTION VIII – PHYSICAL ACTIVITY

PA1. Do you do moderate to vigorous activity (walking, swimming, doing home and yard work, and engaging in sport activities) for 30 minutes or more, at least 5 days in a week?	Yes	no
	1	0

Thank you for your participation!!!

1.2 Amharic Version Questionnaire

የአማርኛ ተርጉም ቃለ-መጠየቅ

ጅማ ዩኒቨርሲቲ

የህብረተሰብ ጤናና ሕክምና ሳይንስ ኮላጅ

የአእምሮ ህክምና ት/ትከፍል የICCMH ድህረ-ምረቃ ፕሮግራም

የጥናቱ ቦታ፡ የጅማ ዩኒቨርሲቲ ሕክምና ማህከል ክሮንክ ፎሎዉ-አፕ ክልንክ ፣ማሃዝያ, 2011

የጥናቱ መረጃና የፍቃድኝነተ ማረጋገጫ ቅጽ

ስሜ_____ይባላል። እዚህ የተገኘሁት የአእምሮ ጤና ህክምና ሁለተኛ ድግሪ(ICCMH) ተማሪ የሆነዉን ተማሪ ኤልያስ ንጉሱን ወክዬ ነዉ፡፡ የጥናቱ አላማ ደም ግፊት ህመም ካለባቻዉን ተመላላሽ ታካሚዎች ማሃል ድብርት የአእምሮ ጤና ችግር መጠንና ተያያዥ ነገሮችን ለመጥናት ነዉ። ድብርት ደም ግፊትንና ለሎች ለራጅም ግዜ የሚቆዩ ህመም ያለባቸዉ ሰዎች ዉሰጥ በብዛት ይታያል፡፡ እርሶ የምሰጡን መረጃ ለህምተኞች፣ለሃክሞችና ለማህከሉ በጣም ተቃሚ ነዉ፡፡ ጥናቱ ላይ የሚሳተፉት በፍቃደኝነት ነዉ፡፡ ጥናቱ ላይ በመሳተፎ የሚደርሲቦት ጉዳት የለም፡፡ ጥናቱ ላይ ለመሳተፍ ፍቃደኛ በባለመሆኖም የሚቀረቦት ጥቅም የለም፡፡ ቃለ-መጠየቁን በፈለጉት ሰዓት አቆርጦ መሄድ ይችላሉ፡፡ ከእሶ የሚገኘዉ መረጃ በምሰጥር የቀመጣል፡፡ ያለእርሶ ፈቃድ ወይም ያለ ህጋዊ አካል ፈቃድ ለሶስተኛ ወገን በፍጹም አይተላለፍም፡፡ ቃለመጠየቁ አስከ 30 የፈጃል፡፡

ጥናቱ ላይ ለመሳተፍ ፍቃደኛኖት?

1. አዎ ☐ 2. አይደለዉም ☐

የተሳታፊዉ ፊርማ _____ቀን_____

የጠያቂዉ ስምናፊርማ_____ቀን_____

የተቆጣጣርዉ ስምና ፊረማ_____ቀን_____

የተመረማሪዉ ስም፡ ኤልያስ ንጉሱ ስልክ ቁጥር፡ +251917860840

E-mail: elishangs12@gmail.com

መግቢያ፤ ይህ ቃለ-መጠየቅ ደም ግፊት ህመም ያለባቻዉንና በጅማ ዩኒቨርሲቲ ሕክምና ማህከል ተመላላሽ ህክምና ላይ ያሉት ዉስጥ የድብርት የአእምሮ ችግርን መጠንና ተያያዝ ነገሮችን ለማጥናት የተዘጋጀ። ቃለ-መጠየቁ በ ስምንት ክፍል ተዘጋጅቱዋል፡፡ እባኮን ጥያቀዉን ይመልሱ

ክፍል ፡ የማህበራዊ እና የግል መረጃዎችን ለመሰብሰብ የተዘጋጁ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ኮድ
Q-ነ	እድሜ	----------በአመት	
Q-2	ጾታ	ነ.ወንድ 2. ሴት	
Q-3	ሃይማኖት	ነ.ሙስሊም 2. አርቶዶክስ 3.ፕሮተስታነት 4. ካቶልክ 5. ለላ -------	
Q-4	የጋቢቻ ሁነታ	ነ.ያገባ 2.አግብቶ የፈታ/የፈታች 3. የሞተበት/የሞተባት 4.ያላገባ	
Q-5	ብሄር	ነ. አሮሞ 2. አማራ 3. ዳዉሮ 4. ጉራግ 5. ለላ.....	
Q-6	መኖረያ	ነ.ከተማ 2. ገጠር	
Q-7	የትምረት ደረጃ	ነ.ማንበብና መጻፍ የማይችል 2. ነ-4ኛ ክፍል 3. 5-8ኛ ክፊል 4. 9-ነ0ኛክፍል 5. ኮለጅና ከዛ በላይ	
Q-8	የስራ ሁኔታ	ነ.ገበሬ 2. ነጋዴ 3. የቀን ሰራተኛ 4. የመንሰት ሰራተኛ 5. የቤት እማቤት 6. ስራጥ 7. ተማሪ 8. ለላ _____	
Q-9	አማካኝ ወራዊ ገቢዎት በእትየጲየን ብር ስንት ይሆናል	አማካኝ ወራዊ ገቢዎት በእትየጲየን ብር ስንት ይሆናል	
Q-ነ0	ከማን ጋር ነዉ የሚኖሩት?	ነ.ከባላቤተ ጋር 2. ከበተሳቦቼ ጋር ከጉዋደኞቼ ጋር 4.ብቻዬን	

ክፍል 2፡ስለህክምናና መዳኒት መረጃ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	መልስ	ኮድ
Q-11	የደም ግፍት ህመምዎ ምን ያህል ጊዜ ሆነዎትል (ካረዱን ይመሌከቱ)?		
Q-12	የሚወስዱትየደም ግፊት ህክምና የመድሀኒት ሰምና ብዛት(ከካዱ ያረጋግጡ)		
Q-13	የደም ግፍት ህመም ህክምና መድሀኒት ከጀመሩ ምን ያህል ጊዜ ሆኖታል? (ከህመምተኛ ካርድ ያረጋግጡ)		
Q-14	በደም ግፊት ህመም ምክንያት ሆስፕታል ተንቶ ያቃሉ?	1. አዎ 2. አይደለም	
Q-15	ያዉኑ የደም ግፍት መጠን (ካረዱን ይመሌከቱ)		
Q-16	የህመምተናዉ ቁመት መጠን		
Q-17	የህመምተናዉ የክብደት መጠን		
Q-18	በቤተሰብ ደም ግፍት ህመም የለበት ገለሰብ አለ ?		
Q-19	በቤተሰብ የአህምሮ ህመም የለበት ገለሰብ አለ?		
Q-20	ከደም ግፊት በተጨማር ለላ ዘለቀታዊ በሽታ አነዳለቦት ሃክም ነግሮት የቃል? (ከካረዱ ያረጋገግጡ)	1. ሀይፐርተንስቭ ህርት ድዝስ 2. ማዮካርድያል አነፋርክሽን 3. ፕሪፈራል አርቴርያል ደዝስ 4. ስተሮክ 5. ረትኖፓቲ 6. ክሮንክ ክድኒ ድዝስ 7. የሱካር በሽታ 8. ለላ----------	

ክፍል 3: የድብርት ምልክቶች መለያ ጥያቄዎች(PHQ-9)::

ላለፉት ሁለት ሳምንታት በታች ከተዘረዘቸው የህመም መልክቶች ምን አስቸግሮዎት/አሳስቦት ነበር?					
PHQ1	ላለፉት ሁለት ሳምንታት የዕለት ዕለት ተግባርዎን ለማከናወን ያሎት ተነሳሽነት/ፍላጎት በጣም ቀንሶ ወይም ደግሞ ከዚ በፊት ስሰሩ እርካታ ሰያገኙበት የነበሬ ነገር ሰልችቶት ነበር?	የለም	አልፎ አልፎ ብቻ	በዛ ላለ ጊዜ	ከሞላ ጎደል በየቀኑ
PHQ2	የመደበር ወይም ተስፋ የመቁረጥ ስሜት ይሰማዎት ነበር?	0	1	2	3
PHQ3	እንቅልፍ አልወስድ ብሎዎት ወይም በደንብ መተኛት አቅትዎት ወይም ደግሞ እንቅልፍ ከመጠን በላይ በስቶቦት ይቸገሩ ነበር?	0	1	2	3
PHQ4	የድካም ወይም የአቅም ማነስ ስሜት ይሰማዎት ነበር?	0	1	2	3
PHQ5	የምግብ ፍላጎትዎ ቀንሶ ወይም ጨምሮ ነበር?	0	1	2	3
PHQ6	ራስዎን የመጥላት ወይም ዋጋ የለኝም የማለት ወይም ለራሴንም ሆነ ለቤተሰቤ ጥፋተኛ ነኝ የሚል ስሜት ተሰምትዎት ነበር?	0	1	2	3
PHQ7	በሚሰሩት ስራ ላይ ሃሳብዎን ለመሰብሰብ/ትኩረት መስጠት አስቸግርዎት ነበር? ለምሳሌ ከሰዎች ጋር ሲጨዋወቱ ትኩረት ስጥቶ ማዳመጥ/ ተቪ ማየትወዘተ…	0	1	2	3

PHQ8	ለለዎች እስከሚታወቅ ድረስ በእንቅስቃሴዎ ወይም በንግግርዎ በጣም ቀስ ማለት ወይም ደግሞ በተቃራኒዉ ለለዎች እስከሚታወቅ ድረስ መረጋጋት አቅቶዎት አንድ ቦታ አርፎ መቀመጥ ወይመ መቆም እስከማይችለ ሆነው ነበር?፡፡	0	ነ	2	3
PHQ9	ላለፉት ሁለት ሳምንታት ከመኖር ብሞት ይሻለኛል ብለው አስበው ወይም ራስዎን በሆነ መንገድ ሊጎዱ አስበው ነበር?	0	ነ	2	3
PHQG	ከሜይ የጠቀሱት ሚልክቶች በስራዎትና ከወዎች ጋረ ያሎት ግኙኝነት ላይ ምን ያህል ችግር አምጥቱዋል?	0፡ የሚከብድ አይደለም			
		ነ፡ ትንሽ ይከብዳል			
		2፡ በጣም ይከብዳል			
		3፡ ከመጠን በላይ ከባድ ነዉ			

ክፍል አራት - የዉጥረት መጠን መለኪያ ቅፅ(PSS)

ተ.ቁ	ጥያቄዎች	በጭራሽ	የለም ማለት ይቻላል	አንዳአንዴ	በተደጋጋሚ	በጣም በተደጋጋሚ
PS1	ባለፈዉ ነ ወር ዉስጥ ያለሰቡት ነገር በመከሰቱ ምክንያት ምን ያህል ተናደዋል?	0	ነ	2	3	4
PS2	ባለፈዉ ነ ወር ዉስጥ ምን ያህል ለህይወትዎ ወሳኝ የሆኑት ነገሮችን መቆጣጠር እከብዶት ተሰምቶት ያቃል?	0	ነ	2	3	4
PS3	ባለፈዉ ነ ወር ዉስጥ ምን ያህል ተናዳዉ ወይም ዉጥረት ገጥሞወት ያዉቃል?	0	ነ	2	3	4
PS4	ባለፈዉ ነ ወር ዉስጥ ምን ያህል የራስዎን ችግር በራስ ለመፍታት አቅም እንዳሎት ተሰምቶት ያዉቃል?	4	3	2	ነ	0
PS5	ባለፈዉ ነ ወር ዉስጥ፣ ምን ያህል ነገሮች ባቀዱት መሰረት አየተከናወኑ እንደሆኑ ተሰምቶዎት ያዉቃል ?	4	3	2	ነ	0
PS6	ባለፈዉ ነ ወር ዉስጥ ምን ያህል የሚጠበቅቦትን ነገሮችን ባለዎት ነገር ማከናወን እንደማይችሉ ተሰምቶዎት ያዉቃል?	0	ነ	2	3	4
PS7	ባለፈዉ ነ ወርዉስጥ፣ምን ያህል በህይወትዎ አስቸጋሪ የሆኑት ነገሮችን መቆጣጠር እንደቻሉ ተሰምቶዎት ያዉቃል ?	4	3	2	ነ	0
PS8	ባለፈዉ ነ ወር፣ ዉስጥ ምን ያህል ነገሮች ከእርሰዎ በታች እንደሆኑ ተሰምቶዎት ያዉቃል?	4	3	2	ነ	0
PS9	ባለፈዉ ነ ወርዉስጥ፤ ነገሮች ከአቅምዎ በላይ እንደሆኑ በመሰማትዎ ምክንያት ምን ያህል ተንደዉ ያዉቃሉ?	0	ነ	2	3	4
PS10	ባለፈዉ ነ ወርዉስጥ፣ምን ያህል ነገሮች እርሰዎን ወደ ማይወጡት ከባድ ነገረ እየነትዎት እንደሆነ ተሰምቶዎት ያዉቃል?	0	ነ	2	3	4

ክፍል 5 ፡ የማህበራዊ ግኙኝነት እና የግል ተሞክሮዎን መረጃዎችን ለመዳሰስ የተዘጋጀ ጥያቄ (OSS-3)

ተ.ቁ			ኮድ
OSS11	ምን ያህል ሠው አደጋ (ችግር) በሚያጋጥሞት ጊዜ በቅርብ የችግርዎ ተካፋይ ሉሆኑሌዎት ይችላል?	1. ማንም	
		2. አንድ ወይም ሁለት	
		3. ከ3-5	
		4. 6ና ከዛ በላይ	
OSS12	ምን ያህሌ ሠው ስለ እርስዎ ግድ ይለዋል?	1. ማንም ግድ አይሎዎም	
		2. ትንሽ ግድ የላቸዋል	
		3. እርግአኛ አየደለዉም	
		4. የተወሰኑ ግድ ይላቹዋል	
		5. ብዙዎትን ግድ የላቹዋል	
OSS13	እርዳታ በሚያስፍሊጎት ጊዜ ከለሎች እርዳታ ማግኘ ምን ያህል ይቀሎታል	5. በጣም ቀላል	
		4. ቀላላ	
		3. ይቻላል	
		2. ከባድ ነዉ	
		1. በጣም ከባድ ነዉ	

ክፍል 6፡ ሞሪስኪ የመድሀኒት ክትትል መለኪያ ቅጽ::

ተ.ቁ	ጥያቄዎች	አዎ	አይደለም
MM1	አሌፎ አሌፎ መድሃኒቶን መዉሰድ ይረሳሉ?	0	1
MM2	ላለፉት ሁለት ሳምንታት ዉስጥ መዳኒቶን ሳይወስዱት የቀሩ ጊዜ ነበር?	0	1
MM3	መዳንቶትን ስወሰዱ የሚብስቦት እየመሰልት መድሃኒቶን ሃሀኪሞትን ሳያማክሩ ያቸረጡበት ጊዜ ነበር?	0	1
MM4	ጉዞ ላይ/ከቤት በሚወጡበት ጊዜ አንዳንዴ መድሃኒቶን የዘዉ መዉጣት ይረሳለ?	0	1
MM5	ትሊንትና ሁለንም መድሃኒቶን ወስድ ረስትዋል?	0	1
MM6	አንዳንዴ ህመሞት የተሻሆዎት ስመስሆዎት መድሃኒቶን መዉሰድ ያቆማለ?	0	1
MM7	በየቀኑ መድሃኒት መዉሰድ አስሌቺ ነዉ፣ በእዉነቱ አንቱ መድሃኒቶን በትክክል ሳየቆርጡ ተጨንቀዉበት ለመዉሰድ ጥረት የደርጉ ነበር?	0	1
MM8	ለምን ያክል ጊዜ መድሃኒቶትን መወሰድ ይረሳለ?	1. በጭራሽ አሌረሳም 0፡ ከስንት ጊዜ አንዴ 2. አንድ አነድ ጊዜ 3. በብዛት ሁሌ ጊዜ	

ክፍል 7፡ ስለ አደንዛዥ እጽ አጠቃቀም ጥያቄዎች (ASSIST V3.0)

ASS1	በህይወት ዘመንዎ የሚከተሉት አደንዛዥ እጽ ተጠቅመዉ ያዉቃሉ?	አዎ	የለም
	አልኮል	3	0
	ሲጋራ	3	0
	ጫት	3	0
	ካናቢስ	3	0
	ሌላ ካለ ይጠቀስ ----------	3	0

ASS2	መልሶ አዎ ከሆነ ባለፉት 3 ወራት ዉስጥ ምን ያህል ጊዜ ተጠቅመዋል?	በጭራሽ	እንዴ/ሁለቱ	በየወሩ	በየሳምንቱ	በየቀኑ
	አልኮል	0	4	5	6	7
	ሲጋራ	0	4	5	6	7
	ጫት	0	4	5	6	7
	ካናቢስ	0	4	5	6	7
	ሌላ ካለ ይጠቀስ ----------	0	4	5	6	7
ASS3	ባለፉት 3 ወራት ዉስጥ ምን ያህል ጊዜ ለሚጠቀሙት እጽ ከፍተኛ የሆነ አምጣ አምጣ የሚል ስሜት ተሰምቶት የዉቃል?	በጭራሽ	እንዴ/ሁለቱ	በየወሩ	በየሳምንቱ	በየቀኑ
	አልኮል	0	5	6	7	8
	ሲጋራ	0	5	6	7	8
	ጫት	0	5	6	7	8
	ካናቢስ	0	5	6	7	8
	ሌላ ካለ ይጠቀስ ----------	0	5	6	7	8

AS4	ባለፉት 3 ወራት ዉስጥ እጹን በመጠቀሞምን ያህል ጊዜ ኢኮኖሚዊ ፣ ማህበራዊ ፣ አካላዊና ህግ ነክ ችግሮች መጥቶብዎታል?	በጭራሽ	እንዴ/ሁለቱ	በየወሩ	በየሳምንቱ	በየቀኑ
	አልኮል	0	4	5	6	7
	ሲጋራ	0	4	5	6	7
	ጫት	0	4	5	6	7

	ካናቢስ	0	4	5	6	7
	ሌላ ካለ ይጠቀስ ----------	0	4	5	6	7
AS5	**ባለፉት 3 ወራት ዉስጥ ምን ያህል ጊዜ በመጠቀምዎ መስራት ያለብዎትን ነገር ሳይሰሩ ቀርተዋል?**	**በጭራሽ**	**እንዴ/ሁለቱ**	**በየወሩ**	**በየሳምንቱ**	**በየቀኑ**
	አልኮል	0	5	6	7	8
	ሲጋራ	0	5	6	7	8
	ጫት	0	5	6	7	8
	ካናቢስ	0	5	6	7	8
	ሌላ ካለ ይጠቀስ ----------	0	5	6	7	8

AS6	**ቤተሰብ ወይም ገዳኛ ስለ አደንዘዣ እጽ አጠቃቀምዎ ነግሮዎት/ቅረጻ አቅርቦሎት ያዉቃሉ?**	**በጭራሽ**	**ባለፉት 3 ወራት ዉስጥ**	**አዎ ነገር ግን ባለፉት 3 ወራት ዉስጥ አይደለም**
	አልኮል	0	6	3
	ሲጋራ	0	6	3
	ጫት	0	6	3
	ካናቢስ	0	6	3
	ሌላ ካለ ይጠቀሱ	0	6	3
AS7	**ለማቆም ወይም የሚወስዱትን መጠን ለማቆጣጠር ሞክረህ ነገር ግን ያስቸገረህ ጊዜ ነበር?**	**በጭራሽ**	**አዎ ባለፉት 3 ወራት ዉስጥ**	**አዎ ነገር ግን ባለፉት 3 ወራት ዉስጥ አይደለም**
	አልኮል	0	6	3
	ስጋራ	0	6	3
	ጫት	0	6	3
	ካናቢስ	0	6	3
	ለላ	0	6	3

ቁልፍ : ለጥያቄ AS2-AS5 **: በጭራሽ፡** ላለፉት 3 ወራት አልተጠቀመም **አነደ/ሁለቴ፡** ባለፉት 3 ወራት ዉስጥ አንደ/ሀለቴ ተጠቀምዋል **በየወሩ፡** ባለፉት 3 ወራት ዉስጥ 4 ጊዜ ተጥምዋል **በየሳምንት፡** ባለፉት 3 ወራት ዉስጥ በሳምንት 1-4 ግዜ ተጠቅመዋል **በየቀኑ፡** ባለፉት 3 ወራት ሳምንት ዉስጥ 5-7 ግዜ ተጠቅመዋል

ክፍል 8፡ ስለ **አካል እንቅስቃሰ**

ቢያንስ በሳምንት ውስጥ ለ 5 ቀን 30 ደቂቃ ና ከዛ ብላይ ለሚሆን ገዞ፣ ከመካከለኛ እስከ ከባድ የአካል እንቅስቃሴ(መራመድ፣ ዋና፣ ግቢ ማጽዳት፣ ስፖቾት) ያረጋሉ?	አዎ	አይደም

ስለተሳተፉ እናመሰግናለን!

1.3 Questionnaire Afan Oromo Version

YUUNIVERSIITII JIMMAATTI

KOLLEGGII MEEDIKAALAA FI SAAYINSII FAYYAA HAWWAASAA

Muummee Yaala Dhibee Sammuu Saganta Digrii 2ffaa

Qorannoo Faffaca'iinsa Dhibee Sammuu Gadda Miira Gadi Fagoo Qabu Fi Wantoota Isaan Walqabatan Dhuukkubsattoota Dhibee Dhiibbaa Dhiiga Qaban Kan Giddugala Meedikaala Jimmaa Yuuniversiitiitti Deddeebi'anii Yaalaman Irratti Taasifamu

Bakki Qorannoo: Magaalaa Jimmaa; Giddu-Gala Meedicaalaa Yuuniversiitii Jimmaatti, Eebla, 2011

Guca Heyyemamummaa Mirkaneessu

Maqaan koo_____jedhama. Kanin asitti argame barataa digrii lamaffa muummee fayyaa dhibee sammuu kan ta'e barataa Eliyaas Nugusuu bakka bu'uudhaan. Qorannoo kana geeggeessun ulaagaa barnoota isaanii xumuruu barbaachisu keessaa tokkodha. Kaayyoon qorannochaas dhibee samuu gadda miira gad fagoo of keessaa qabu fi wantoota isa waliin walqabatan namoota dhibee dhiibbaa dhiigaa qaban kan giddu gala meedikaalaa Jimmaa yuunivarsiitiitti deddebiin Yaalama jiran keessaa qorachuudha. Dhibeen kun namoota dhibee dhiibbaa dhiigaa qaban keessatti ballinaan kan muldhatuudhaa. Qorannoo kana keessatti hirmaachuun keessan ogeessota giddu gala kanaafis ta'ee giddugalichaaf baayyee barbaachissadha. qorannoo kana irratti hirmaachuun fedha keessan irratti hundaa'a. Yoo qoranno kana irratti hirmaachuu dhiiftan wanti miidhamtan tokkolleen hin jiru. qoranno kana irratti hirmaachuun keessaniis miidhaa homaatuu sin irraan hin ga'u. Waliin dubbii gochuu erga jalqabdaniis yeroo isin barbaachise Kamittuu qorannocha addaan kuttanii ba'uuf mirga gutuu qabdu. odeeffannoo isin harkaa funaannamu hindumtuu iccitiidhaan ka'ama. Fedha keessaniin yookiin ammo ajaja qaama seera qabeessumma argateen ala qaama sadaffaadhaaf gonkumaa kin darbu. waliin dubbichi daqiiqaa 30 isinitti fudhachuu dandaa'a

Qorannoo kana irratti hirmaachuuf heyyemamoodhaa? Eeyyee ☐ lakkii ☐

Mallatto hirmaataa_____guyyaa_____

Maqaa fi mallatto ogeessa odeefannoo sassaabee_____guyyaa_____

Maqaafi mallattoo to'ataa qorannichaa_____guyyaa_____

Maqaa qorataa: Eliyaas Nugusuu lakk. Bilbilaa: 0917860840 email:elishangs12@gmail.com

Gaaffilee Qorannoo Dhibee Sammuu Gadda Miira Gad Fagoo Of Keessa Qabu Fi Waltoota Isaan Walqabatan Namoota Dhibee Dhiibbaa Dhiigaa Qaba Kan Giddu Gala Meedikaalaa Jimmaa Yuuniversiitiitti Deddebi'anii Yualaman Qorachuudhaaf Qophaa'e

Qajeelfama: Gaffiileen qorannichaa kutaa torbatti qoodamee qopha'ee jira. Gaaffile isiniif dhiyaatan akka barbaachisummaa akka nuuf kennitan kabajaanin isin gaafadha!

Kutaa 1ffaa: gaaffilee waa'ee odeeffannoo dhuunfaafi maatii

Lakk	Gaaffilee	Filannoowwan
Q-1	Umriin keessan meeqa?	waggaadhaan----------
Q-2	saala	1. Dhiira 2. dhalaa
Q-3	Amantaan keessan maali?	1. Musliima 2. ortoodoksii 3. Protestaantii 4 kan biro_____
Q-4	Haala fudhaaf heerumaa	1. Kan fuudhe/kan heerumte 2. kan hike /kan hiikte 3. Kan jelaa duute/kan irraa du'e 4. kan hin fuudhin/kan hin heerumin
Q-5	Sabummaan keesan maali?	1. Oromoo 2. Amaaraa 3. Dawro 4. Guraagee 5. Kan biroo_____
Q-6	Bakka jireenyaa	1. Baadiyyaa 2. magaalaa
Q-7	Sadarkaa barnootaa?	1. barreesuuf dubbisuu kan hin dandeenye 2. Kutaa 1-4 3. Kutaa 5-8 4. kutaa 9-10 5. kolleejiifi universiitii
Q-8	Hojiin keessan maali?	1. Qote bulaa 2. Daldalaa 3. Hojjetaa guyya guyyaa 4. Hojjetaa mootummaa 5. Haadha manaa 6. Hoji-dhabaa 7. Kan biraa_____
Q-9	Ji'atti giddu galeessaan galiin keessan birrii itiyoophiyaatti meeqa ta'a? Qarshii itoopiyaatiin_____	

Kutaa 2ffaa: gaffilee qoranno waa'ee dhkkuba dhiibbaa dhiigaafi yaala isaan wal qabatuu

S.N	Questions	
Q11	Dhibeen dhiibaa dhiigaa kun hangamiif isin irra ture? (Galmee dhukkubsatichaa irraa mirkaneessi!)	Ji'aan_____
Q12	Qoricha gosa kamiif meeqa fudhachaa jirtuu? (galmee dhukkubsataa irraa mirkaneessi)	_____
Q13	Yaala dhibee dhiibbaa dhiigaa ergaa jalqabdanii yeroo hangamii ta'eeraa? (galmee dhukkubsataa irraa mirkaneessi)	
Q14	Saba dhibee dhiibbaa dhiigaaf hospitaala ciistanii beektuu?	Eeyyee 2. lakkii
Q15	Hanga dhiibbaa dhiigaa yeroo ammaa(galme irraa ilaali)	
Q16	Dheerina dhukkubsataa	
Q17	Ulfaatina dhukkubsataa	
Q18	Maatiikee kee keessa namni dhiibbaa dhiigaa dhukkubsatu jiraa?	
Q19	Maatiikee keessa namni sammuu dhukkubsatu jiraa?	
Q-20	Dhibeen dhiibbaa dhiigaa irratti dabalataan dhibee biraa kan yeroo dheraaf nama irra turu akka isin dhukkubu kan haakimni isinitti hime beekaa?	0. lakki 1.dhibee onnee /hypertensiveheartdisease 2. Myocardial infarctionii 3.dhibee hidda dhiigaa/Peripheral arterial disease 4. Strokii/stroke 5. Dhibee ijaa retinopathy 6. dhibee kaleee/Chronic kidney disease

Kutaa 3ffaa: gaffilee malattoolee dhibee sammuu gadda miira gadi gagoo of keessa qabu qorachuuf qophaayan

Turban lamaan darban keessa malattooleen miira gaddaa armaan gadii isin dhiphisanii beekuu?					
		tasumaa	Darbee darbee	Walakkaa Torbanii oliif	Guyyaa hundumaa jechuun ni dandaa'ama
PHQ1	Hojii hojjechuudhaa fedha dhabuu yookiin waan hojjettan irraa gammachuu argachuu dhabuu	0	1	2	3
PHQ2	Miirri gad-aantummaa, gaddaa fi abdii kutannaa isinitt dhagaa'amuu	0	1	2	3
PHQ3	Irribni isin fudhaachuu diduu yookiin baayyatee humnaan ol isinitti ta'uu	0	1	2	3
PHQ4	Miirri dhadhabiifi humna dhabuu isinitti dhagaa'amuu	0	1	2	3
PHQ5	Fedhiin nyaataa keessan humnaan ol hir'achuu yookiin dabaluu	0	1	2	3
PHQ6	Miirri balleesitummaa waa'ee keessaniif yookiin waa'ee maatii keessanii isinitti dhagaa'amuu	0	1	2	3
PHQ7	Hojii yemmuu hojjettan yaada keessan sassaabachuu dadhabuu fakkeenyaa tv. ilaaluuf kitaaba dubbisuu dadhabuu	0	1	2	3
PHQ8	Gaafa deemta yookiin gaafa haasoftan hanga namoota warra kaanitti beekaamutti baayyee suuta jechuu yookaahuu hanga nama kan biraatti beekamuutti ariittiidhaan socho'uufi haasa'uufi bakka tokko tasgabbiidhaan ta'uu dadhabuun sin irratti mudhatee beekaa?	0	1	2	3
PHQ9	Utuun du'ee wayya yookiin utuun of ajjeessee wayya jettanii yeroon itti yaaddan turee?	0	1	2	3

Kutaa 4ffaa: gaaffilee waa'ee dhibina qorachuuf qopha'an

	Gaffilee	gonkumaa	Gonkuma jechuun danda'a	Al tokko tokko	Yeroo bayyee jechuun danda'a	Yeroo hunda
PS1	ji'a darbe kana keessa yeroo hangamiif wantooni isin hin eegin akka tasaa isin irratti ta'uun isiin aarsanii beekuu?	**0**	**1**	**2**	**3**	**4**
PS2	Ji'a darbe keessa yeroo hangamiif wantoonni jireenya keessan keessatti barbaachisoo ta'an to'annaa keessaniin ala akka ta'an isitti dhagaa'amee beeka?	**0**	**1**	**2**	**3**	**4**
PS3	Ji'a darbe kana keessa yeroo hagamiif dhiphattee/jeeqamtee beekta?	**0**	**1**	**2**	**3**	**4**
PS4	Ji'a darbe kana keessa yeroo hagamiif rakkoo dhuunfaa keetii ofi keetiin hiikkachuu akka dandeessuuf ofitti amanamummaan sitti dhagaa'amee beeka?	**4**	**3**	**2**	**1**	**0**
PS5	Ji'a darbe keessa yeroo hangamiif halonni kee akka ati barbaaddetti akka deemaa jiran sitti dhagaa'amee beekaa?	**4**	**3**	**2**	**1**	**0**
PS6	Ji'a darbe keessa yeroo hangamiif waan gochuuf sirra eegamu raawachuu akka siif ulfaata ta'etti sitti dhagaa'amee beekaa?	**0**	**1**	**2**	**3**	**4**
PS7	Ji'a darbe keessa yeroo hangamiif wantootni jireenya kee keessatti si aarsan to'annaakee jela akka jiranitti sitti dhagaa'amee beekaa?	**4**	**3**	**2**	**1**	**0**
PS8	Ji'a darbe keessa yeroo hangamiif hallonni kee hunduumtuu to'annaakee jela akka jiranitti sitti dhagaa'amee beekaa?	**4**	**3**	**2**	**1**	**0**
PS9	Ji'a darbe keessa yeroo hangamiif halonni hunduu to'annaa keetii ala ta'uun isaani sitti dhagaa'amuudhaan aartee beektaa	**0**	**1**	**2**	**3**	**4**
PS10	Ji'a darbe keessa yeroo hangamiif haalonni jireenya keetii gaara hin darbamne fakkaatanii sitti miuldhatanii beekuu?	**0**	**1**	**2**	**3**	**4**

Kutaa 5ffaa: gaffilee qorrannoo dhimma hawaasummaaf qophaayan (OSS-3)

S.N	Gaafilee	
OS11	Guyyaa rakkoo keetii siif qaqqabuu kan dandaa'an namoota meeqa ta'u?	1.homaa
		2.tokko/lama
		3sadii-shanii
		4.ja'aafi isaan oli
OS12	Namoonni waa'een kee isaan yaachisu nama meeqa ta'u	1.Homtuu dhimmakoo hin qabu
		2.namni ta'e jira natti fakkata
		3.nan shakka
		4.namoota muraasa
		5.namoota baayyee
OS13	Gargaarsi yeroo si barbaachisutti namoota irraa galgaarsa hargachuun hammam siif salphata?	5.baayyee salphaadha
		4. salphaadha
		3. ni dandaa'ama
		4. ni ulfaata
		5. baayyee ulfaataadha

	Eenyu waliin jirraattu?	Haadha-manaa/abbaa-manaa waliin
		Maatiikoo waliin
		Hiriyaa koo waliin
		kophaakoo

Kutaa: 6ffaa: Hordoffii Safara Qoricha Mooriski Waa'ee Qoricha Ogeessi Fayyaa Siif Ajajee Yaadudhaan Fudhaachuu Qorachuuf Qophaa'e (MMAS-8)

	Gaaffilee	eeyyee	lakkii
MM1	Yeroo tokko tokko qoricha kee fudhachuun ni irraanfattaa?	0	1
MM2	Turban lamaan darba keessa guyyaan ati qoricha kee utuu hin fudhatin hafte ni jiraa?	0	1
MM3	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?	0	1
MM4	Yeroo imaltu/manaa baatu yeroon ati qoricha kee fudhatte ba'uu	0	1

	irranfatte ni jiraa?		
MM5	Kaleessa qoricha kee hundumaa fudhachuu irraanfatteettaa?	0	1
MM6	Yeroo dhukkubni kee sitti fooyya'uu yeroon ati qoricha kee fudhachuu dhiifte ni jiraa?	0	1
MM7	Guyyaa guyyaan qoricha fudhachuun namoota baayyee ni nuffisiisa. Qoricha kee fudhachuun si nuffisiisee beekaa?	0	1
MM8	Yeroo hammamiif qoricha kee fudhachuu irraanfattee beekta?	1: Goonkumaa	
		0: Yeroo tokko	
		Darbee darbee	
		Yeroo heddu/Baay‟ee	
		E.Yeroo hunda	

Kutaa 7ffaa: Gaffilee Wantoota Araada Nama Qabsiisanii Qorachuuf Qophaa'e (Assist-V3.0)

AS1	G1: Jireenya kee keessatti waantota araada naman qabsiisan kanneen armaan gaditti caqasaman fayyadamtee beektaa?			Eeyye	Lakkii	
	Dhugaatii Alkoolii			3	0	
	Tamboo/sigaaraa			3	0	
	Caatii/jimaa			3	0	
	Canabisii/Gaangaa			3	0	
	Kanneen biroo yoo jiraatan caqasi			3	0	
AS2	G2: deebiin kee eeyyee yoo ta'e wantoota araada nama qabsiisa kaneen ji'oota sadan darban keessatti fayyadamtee beektaa?	Tasumaa	Yeroo tokko/lama	Ji'a ji'aan	Turban torbaniin	Guyyaa hunda/ hoggayyu
	Dhugaatii alkoolii	0	2	3	4	6
	Tamboo/sigaaraa	0	2	3	4	6
	Chaatii/Jimaa	0	2	3	4	6
	Canaabis/Gaanjaa	0	2	3	4	6
	Kan biraa yoo jiraate caqasi	0	2	3	4	6
AS3	G3:ji'oota sada darban keessa wantoota araada nama qabsiisa ati fayyadamaaa jirtu kana arraarri	Tasumaa	Yeroo tokko/la	Ji'a ji'aan	Turban	Guyyaa hunda/

	kan nama hawwisiisu yeroo akkamii sitti dhufa		ma		torba niin	hoggay yu
	Dhugaatii alkoolii	0	2	3	5	6
	Tamboo/sigaaraa	0	2	3	5	6
	Chaatii/jimaa	0	2	3	5	6
	Canaabisii/gaanjaa	0	2	3	5	6
	Kan biroo	0	2	3	5	6

AS4	G4:Ji'oota sadan darban keessatti araada fayyadamuu yeroo hagamiif rakkoo fayyaa, rakkoo hawaasummaa, rakkoo seermaleessummaa fi rakkoo maallaqaaf si saaxilee beekaa	tasumaa	Yeroo tokko/lama	Ji'a ji'aan	Turban torbaaniin	hoggayyuu
	Dhugaatii alkooloii	0	4	5	6	7
	Tamboo/sigaaraa	0	4	5	6	7
	Chaatii/Jimaa	0	4	5	6	7
	cannabisii	0	4	5	6	7
	Kan biroo	0	4	5	6	7
AS5	G5: ji'oota sada darban keessa sababa araadafayyadamuu keessaniif yeroon isiis itti gaafatummaa keessan utuun hin ba'in haftan hagami?	tasumaa	Yeroo tokko/lama	Ji'a ji'aan	Turban torbaaniin	hoggayyuu
	Dhugaatii alkoolii	0	5	6	7	8
	tamboo	0	5	6	7	8
	Caatii/Jimaa	0	5	6	7	8
	Canaabissii/gaanjaa	0	5	6	7	8
	Kan biroo	0	5	6	7	8

AS6	G6: Araada fayyadamuu keessaniif hiriyaan yookiim namni biro takkaa sin ceepha'ee beeekaa?	gonkumaa	Eeyyee ji'a sadan darban keessa	Eeyyeen garuu j'ootaa sada darbaa dura
	Dhugaatii alkoolii	0	6	3
	Tamboo/sigaaraa	0	6	3

	Caatii/Jimaa	0	6	3
	Canaabisii/ganja	0	6	3
	Kan biroo	0	6	3
AS7	G7. Araada fayyadamtu kana takkaa dhaabuuf yookiin ammo hanga fudhattu nto'achuuf yaaltee beektaa?	gonku maa	Eeyyee ji'a sadan darban keessa	Eeyyeen garuu j'ootaa sada darbaa dura
	Dhugaatii alkoolii	0	6	3
	Tamboo/sigaaraa	0	6	3
	Caatii/Jimaa	0	6	3
	Canaabisii	0	6	3
	Kan biroo	0	6	3

Hiikkaa: gaaffilee AS2-AS5 jiraniif gonkuma**:** ji'a sadan darban keessa hin fayyadamne **altokko/al-lama:** ji'a sadan darban keessa yeroo tokko/yeroo lama fayyadame: **Ji'aa ji'aa:** ji'oota darban sadan keessatti ji'atti yeroo 1-3 yoo fayyadame **turban torbaniin:** ji'oota sadan darbaniif torbanitti yeroo 1-4 fayyadame guyya **guyyaatti**: torbanitti guyyaa 5-7 yoo fayyadame.

Yoo xiqqaate turban keessatti guyyaa 5 sochii qaamaa daqiiqaa 30 fi isaa oliif gootanii ni gootuu?	Eeyyee	lakkii
	1	0

Hirmaannaa keessaniif Galatoomaa!!!

Declaration

I, the undersigned, declare that this research thesis was my original work which had not been presented for a degree or for masters in this or other university and that all source of materials used has been acknowledged.

Name of the student: _____

Date._____ Signature _____

Date of submission _____

This research thesis has been submitted with my approval as a university advisor

First advisor _____signature _____date _____

Second advisor_____ signature_____ date_____