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PREVALENCE AND ASSOCIATED FACTORS OF COMMON MENTAL
ILLNESSES AMONG PERSONS OF WORKING AGE IN HADIYA ZONE,
SNNPR

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ABSTRACT

Background: Mental illnesses are public health problems in the world and more common in low income countries. It causes direct mortality, morbidity and significant risk factor for adverse health outcomes. In Ethiopia, among every five persons, an individual is affected by common mental illness.

Objectives: To assess the prevalence and associated factors of common mental illnesses among persons of working age in Hadiya zone, south of Ethiopia.

Methods: A community based cross sectional study was conducted in Hadiya zone from February to March 2016 on a total 722 sample respondents, whose age ranges from 15 to 64 years. The study subjects were selected by two stages stratified sampling technique. Data was collected on individual risk factors common mental illnesses (CMIs), using-interviewers administered questionnaire. The data was entered in to EPI Data version 3.1 and exported to SPSS version 20 statistical software for analysis. Univariate, bivariate and multivariate analyses were done.

Results: The prevalence of CMIs was found to be 46.1% (95% CI: 42.7, 49.7%). The age from 55 to above years were almost 46% less likely develops CMIs than from age 35 to 54 years (AOR=0.54, CI: 0.36, 0.804). Those respondents having single marital status 52.6% less likely develops CMIs than ever married (AOR=0.474, CI: 0.307, 0.734). Those respondents were having pervious history of chronic medical illness 1.9 times more likely develops CMIs (AOR=1.9, CI: 1.109, 3.279).The respondents were having small family size , 1.9 times more likely develops CMIs than large family size (AOR=1.9, CI: 1.206, 2.846). Those were having pervious history of khat chewing 4.5 times more likely develops CMIs non chewer (AOR=4.5, CI: 3.066, 6.603) and the respondents having stressful life events like major financial crisis 2.9 times more likely develops CMIs than those have non finical crisis (AOR=2.9, CI: 2.007, 3.978).

Conclusions: This study confirmed that CMIs are major public health problems in Hadiya zone with high prevalence, due to using the different cut off point in urban and rural community and they are majority groups. Common in lower age, small family size, pervious family history of chronic medical illness, having single martial status, pervious history of khat chewer and those having major financial crisis were significantly associated with CMIs.

Key words: common mental illness, working age adults, Hadiya and Ethiopia.

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LIST OF ABBREVIATIONS AND ACRONOMS

AIDS	Acquired Immune Deficiency Syndrome
BSc	Bachelor of Science
CI	Confidence Interval
CMIs	Common Mental Illnesses
DALYs	Disability Adjusted Life Years
EFY	Ethiopian Fiscal Years
ETB	Ethiopian Birr
FMOH	Federal Ministry of Health
HHS	House Holds
HIV	Human Immune deficiency Virus
ICD	International Classification of Disease
IRB	Institutional Review Board
JU	Jimma University
LMICs	Low and Middle Income Countries
MDGs	Millennium Development Goals
MI	Mental Illnesses
MPHE	Master of Public Health in Epidemiology
PHC	Primary Health Care
PI	Principal Investigator
PPS	Probability Proportional to Sample Size
RHB	Regional Health Bureau

SMI	Sever Mental Illness.
SNNPR	Southern Nations Nationalities and Peoples Region
SPSS	Statistical Package for Social Science
SRQ	Self-Reporting Questionnaire
SRS	Simple Random Sampling
SSQ	Social Support Questionnaire
SST	Systematic Sampling Technique
WHO	World Health Organization
WOH	Woreda Health Offices
YLDs	Years Lived with Disability

CHAPTER ONE

1. INTRODUCTION

1.1. BACKGROUND

Common mental illness is a psychological or behavioral manifestation of impairment in brain functioning characterized by wrong perception of reality, disordered thinking, social dysfunction and the inability to cope(1, 2) or any diagnosable illness which significantly interferes with an individual's cognitive, emotional or social abilities (3). They are characterized by symptoms such as insomnia, fatigue, irritability, forgetfulness, difficulty in concentrating and somatic complaints(4).

Common mental illnesses are public health problems throughout the world in developed as well as developing countries (5). The impact of common mental health problem is rising globally and they are second leading cause of health disability in the world (6, 7). They are more common in developed countries than in low income countries, but more recent studies suggest that common mental illnesses like depression, anxiety and somatoform disorders are even more prevalent in low-income countries than in the developed world (8).

They are common in low income countries due to poverty and other communicable diseases abounds. They cause of direct mortality and morbidity and significant risk factors for adverse health outcomes (6, 9).

In Ethiopia, common mental illnesses are the leading non-communicable disorder, among every five persons; one will be affected by common mental illnesses at some stage of his or her life (10, 11). Mental health is apart of primary health care system in Ethiopia, but there is limited mental health service coverage like mental health facility, inadequate numbers of trained mental health professionals for providing services to 80 million Ethiopia's populations; Also there are no occupational therapists, community care facilities and insurance systems for patients with common mental illnesses (12, 13).

There is also shortage of resources like drugs and details about the year of formulation is not available ,there is mental health financing for mental ill persons but, details about expenditures for mental ill persons are not available and mostly pay out of the pocket of the patients. Also the country has disability benefits for persons with common mental illnesses, but the pensions and transfers are allowed on the basis of psychiatrics certifications (12).

1.2. STATEMENT OF THE PROBLEM

Mental health and common mental illnesses are not observing as same importance as physical health; instead, they have been largely neglected. As a result of this the world is suffering from an increasing burden of common mental illnesses and a widening “treatment gap“(14, 15).

The world health organization draw attention to the growing global burden of common mental illnesses(5-7). About 500 million people are believed to suffer from common mental illnesses worldwide. One in four (25%) families has at least one member suicide due to common mental illnesses like depression, anxiety and somatoform disorders (16).

Mostly in developing countries the burden of common mental illness is very significant and there would likely to be an excessively large increase in the coming decades (17-19),but they are underestimated because of inadequate link between common mental illness and other health conditions like the increases of risk for communicable and non communicable diseases. They contribute to unintentional injuries like motor vehicle accidents 2 to 6 time’s higher and intentional injuries like homicide and suicide are also common among persons common mentally ill than none (20-22).

Malnutrition and preventable infectious diseases are common, common mental illnesses, which are considered as non-life threatening, problems due this attention are not given(1,23).They are also associated high burden with disability, mortality and barriers to achieving Millennium Development Goals(MDGs) especially related health like Goals related to child mortality, maternal and mental health and combat HIV/AIDS, Malaria and other diseases (13).

In Ethiopia, common mental illness is the leading non-communicable disorder in terms of burden(11, 13).In rural community setting of Ethiopia it comprises 11% of the total burden of disease (11).

There are several difficulties people have to get appropriate common mental illness care services like:-Stigma and discrimination: - around the world many people with common mental illnesses are mistreated for their illness and become the targets of unfair discrimination. From this access to normal societal opportunities is often compromised. In many countries including Ethiopia no insurance coverage for common mental illnesses, but covered by patients it self. Due to this many people can not afford treatment and one-quarter of all countries do not provide disability benefits to patients with common mental illnesses. One-third of the world’s population 2 billion people live in countries that spend less than 1% of their health budgets on mental health (13, 16).

Stigma, discrimination and human rights abuses are part of the daily lived experience of the mentally ill and their families in Ethiopia (13).

Common mental illnesses affect society as a whole and not just a small, stigmatized and discriminated populations. No group is immune to mental illness but, populations living in poor socioeconomic circumstances are at increased risk of poor mental health, depression and lower subjective wellbeing. Therefore, risk is higher among the poor, homeless, the unemployed, persons with low education, victims of violence, migrants and refugees, indigenous populations, children and adolescents, abused women and the neglected elderly. Increased availability of mental health services may be the single most important factor to improve this situation (13, 24, 25).

Lack of drugs: - though 85% of countries have an essential drugs list, but the year of formulation is not available to use as a basis for acquire therapeutic purposes. Almost 20% of countries do not have at least one common anti depressant and one antipsychotic drug. Spend most of their resources on a few mental protections which focus only on a small fraction of those who need treatment; even these institutions generally provide poor quality care, shortage essential drugs and treatment (13, 16).

There is a huge gap between the need for treatment of common mental illnesses and the resources available. In developed countries with well organized health care systems, from 44% to 70% of patients with common mental illnesses do not receive treatment. In developing countries the figures are even more amazing, with the treatment gap being close to 90 % (24).

Lack of skills: -at the primary health care (PHC) level too few doctors and nurses know how to diagnosis and treat common mental illnesses properly. In 41% of countries there are no mental health training programmes and plan for primary health care professionals and there are no community care facilities for patients with common mental illnesses (13, 16).

The diagnosis of common mental illnesses is difficult to identify, subjective and inaccurate and also data are vague and not clearly defined. This in turn has contributed to undermining the prevalence of common mental illnesses. In low-income countries where morbidity and mortality due to malnutrition and preventable infectious diseases are very common, common mental illnesses which are not regarded as life-threatening problems are seen to be insignificant and less attention is given. Religion and culture have great influence on the perception of the causation and the medication of common mental illnesses in Ethiopia. The majority of Ethiopians believe that all diseases, particularly common mental illnesses are burdens caused by super natural evil factors (1).

Lack of rational, comprehensive mental health policies and legislation: -In Ethiopia there is absence of mental health policy, substance abuse policy, program, and plan and legislation policy and there are also significant differences in the level of support that different countries provide for people with common mental illnesses. For example, Scotland and Finland allocate about 43% of social wellbeing benefits or disability pensions to people with common mental illnesses, but in the Republic of Moldova, one Europe's poorest countries, the proportion is 25% disability pensions (13,16), but in Ethiopia the pensions and transfers are allowed on the basis of psychiatrics certifications (12), While these facts remain about common mental illnesses and their contribution to the global burden of diseases, the attention given to mental health is very low across the globe. This is even more so in low-income countries like Ethiopia (11).

Expected solutions to the problem; prevention, promotion and management of programmes with combination of well-targeted treatment and prevention programmes in the field of mental health, within overall public strategies could avoid years lived with disability and deaths, reduce the stigma and discriminations attached to common mental illnesses, increase considerably the social capital, reduce poverty and promote a country's development. Many more studies need to be conducted in this area, particularly in low- and middle-income countries. There is strong evidence to show that successful interventions for common mental illnesses like anxiety, depression and somatoform disorders are available, affordable and cost-effective (24).

Systematic, small area studies are needed on the prevalence of common mental illnesses, where areas differ in levels of absolute and relative poverty. Such studies may help to identify the specific factors that are associated with the risk of illnesses and, conversely, the factors that help reduce the risk in persons who face severe economic or social adversity (26).

There is no study conducted in relation to common mental illnesses and due to this the awareness of the community about the illnesses is low. The aim of this study to increase knowledge about the mental health status of populations, this study will be conducted to estimate the prevalence of common mental illnesses in Hadiya zone and to describe factors associated with the identified prevalence. Further more the out comes will be used as a reference for those who are interested to conduct a research on the same topics.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. OVERVIEW PREVALENCE COMMON MENTAL ILLNESS

The impact of mental health problem is rising globally. The world health organization draw attention to the growing global burden of common mental illnesses .A common mental illness was recognized that they are public health problems throughout the world in developed as well as developing countries; Close to 450 million people worldwide suffer from mental illnesses and one year prevalence between 8.4% to 29.1%(6).

In Europe, it is estimated that 83 million people experience a common mental illness like depression, anxiety and somatoform disorders every year and they are the leading cause of chronic illness, accounting for 40% of the European disability burden (14, 17, 19). The impact of common mental illnesses (CMIs) on the work place has been examined in terms of its effects on presenteeism, absenteeism and disability days. The presence of any of this leads to productivity loss (19).

Common mental illnesses it comprises 13% of the total global burden of disease in 2000 and that is expected to rise to 15% by the year 2020 (13).Common mental illnesses are more common in developed countries than developing countries(8).

The Epidemiologies of common mental illnesses are prevalent mostly in developing (low-income) countries like in sub saran Africa. A study conducted in sub saran Africa show that the prevalence of common mental illness 20 to 30% (1).Studies conducted in Kenya and South Africa reported that the prevalence of common mental illnesses found to be 10.8% and 34.9% respectively (27-29).

The main contributor to the mental ill-health burden is depression, which, along with anxiety and somatic disorders it affects one in three people with in their life time. There is a difference by gender with women being particularly vulnerable to common mental illnesses. Common mental illness is second only to cardiovascular disease as a source of burden of disease from non-communicable diseases in women in developing countries causing 15% of the total (1).

2.2. THE ASSOCIATED RISK FACTORS OF COMMON MENTAL ILLNESSES

2.2.1. SOCIO DEMOGRAPHIC RELATED FACTORS

Common mental illnesses are not evenly distributed across either society or geography. Socio demographic related factors such as poverty, unemployment, poor working conditions and a lack of education can all affect an individual's mental well being and can increase the risk of developing common mental illness. Thus, mental health is not good among more poor communities, where an elevated exposure to other lifestyle factors such as alcohol use, poor diet, poor physical health and a lack of access to appropriate services further increase the prevalence of common mental illnesses (14, 30).

Some studies have shown that it affect men and women differently; generally they are more common in women than in men with depression being twice more prevalent among females than males, but there are exceptions for example, substance use disorders are about four times more common in male than females and about 80% of people who commit suicide are male. They are also more common in those with large family size, single rather than married, more in cities than rural areas and the prevalence increase with the size of the city. There is a general tendency to be more severe with increasing age (1, 14, 31).

Although it is clearly understood that can lead to poverty, disability, malnutrition and infection (8); common mental illness is second only to cardiovascular disease as a source of burden of disease from non-communicable diseases in women in developing countries causing 15% of the total burden of diseases (1).

They are common in Ethiopia, they are associated with a high burden due to disability and mortality, they constitute important, but largely unrecognized barriers to achieving socio-economic development goals and, despite the existence of affordable and effective treatments, fewer than one in 10 of the most severely affected people ever receive the treatment they need. In order to begin to meet the mental health needs within Ethiopia, a coordinated and sustained effort is required(7).

The economic impacts of common mental illness affect personal income, the ability of ill persons and often their care givers to work, productivity in the workplace and contributions to the national economy, as well as the utilization of treatment and support services. The average annual costs, including medical, pharmaceutical and disability costs, for employees with depression may be 4.2 times higher than those incurred by a typical beneficiary. However, the cost of treatment is often

completely balance by a reduction in the number of days of absenteeism and productivity lost while at work (24).

Furthermore, there is growing international evidence that mental ill health and poverty interact in negative cycle in low-income and middle-income countries. This cycle increases the risk of getting a common mental illness among people who live in poverty; obviously, mental health interventions are associated with improved economic outcomes (8).

Common mental illness evidenced by the absence of appropriate laws or policies, the lack of basic statistics on the prevalence of specific illnesses, the lack of adequate mental health care facilities, the lack of interest or the negative attitudes toward mental health problems among the general health personnel and policy makers, and the shortage of skilled manpower in the field (32).

2.2.2. CLINICAL RELATED FACTORS

Like previous history of hospital admission, length of hospital stay in weeks, family history of psychiatric illness and chronic medical illnesses like Hypertensions, Diabetes mellitus(DM), Human Immune Virus ,Acquired Immune Deficiency Syndrome (HIV /AIDS), any Cancers, Asthma, and Heart disease play important role for development of common mental illnesses like depression, anxiety and somatic disorders .For instance, in Diabetes, total health expenditure is four and half times higher for individuals with depression than for those without depression(17, 33).

Common mental illnesses are more common in medical than in community settings and some studies report that up to 40 % of the patients in general medical and surgical wards are depressed and require treatment(34) .One common finding is that people who suffer from a chronic disease are more likely to also suffer from depression. Some studies shows that having a chronic disease increases the prevalence of depression increases and also depression increases the risk of obtaining a chronic disease (35).

The most common psychiatric disorder in patients who are hospitalized in emergency wards is anxiety, while patients admitted in medical wards most of the time suffering with depression (36). In addition several disorders especially the chronic illnesses will result in psychiatric problems due to their distressing experience and side effects (37).

Patients with depressive disorder are twice as likely to use emergency department services as those without depression (38).People in chronic heart disease of depressed patients have higher rates of complications and longer hospital stays , increased symptom burden than those non depressed patients (39,40).

From this depression is a risk factor for chronic diseases like cancer and heart diseases b/se it is become increasingly clear that mental functioning is fundamentally decreased due to impairment of physical , social and functional health outcomes. Common mental illnesses in patients who also suffer from physical disorders may result in poor compliance and failure to adhere to their treatment schedules (24).

People who also affected by HIV/AIDS are more prone to develop common mental illnesses such as depression and anxiety which, in turn impair their immune function, reduce their quality of life and adherence to treatment and contribute significantly to their premature deaths. These show that common mental illnesses have been over looked as a major health priority in Ethiopia and other low and middle income countries(LMICs) and due to this drawing attention to the need for public health programs targeting to common mental illnesses are important (11,35,41 , 42).

2.2.3. PSYCHOSOCIAL RELATED FACTORS

Psychosocial related factors happens due to a certain combination of stressful situations specific to personals life style activities at any point in the life e.g. death of a loved one or relatives, financial crisis, family member suffer from a chronic medical illness, injury or a physical attack, high job demands, low job control for the worker and social isolation (17).

Family circumstance and early years also play an important role in mental health for example; the interaction between a mother and infant brought about through breastfeeding can have positive mental health implications for the child in later life (43).

Study abroad showed that CMIs were associated with stress related to family, work, social isolation, chronic physical illness, and lifestyle pressures (20). Characteristics like social capital, trust, social support and social networks are also important determinants of the mental health of individuals (25).

2.2.4. SUBSTANCE USE RELATED FACTORS

Substance abuse is one of the most serious public health problems in both developed and developing countries; where more than 1.8 million deaths in 2000 were attributed to alcohol related risks. Alcohol is the most widely used substance in the world, and has been used for thousands of years. It is a potentially addictive substance worldwide, alcohol accounted for 4% of the total burden of diseases in 2000(9, 46); about 76.3 million persons are diagnosed with alcohol disorders in Ethiopia (44).

Substance abuse is also a highly prevalent problem in Ethiopia, particularly among the working age population substances like alcohol, khat and cannabis are the main substances used within Ethiopia. Substance abuse and common mental illnesses are frequently co-occurring disorders. Substance abuse has also been linked to increase risky sexual behavior in out-of-school youth and commercial sex workers (45, 46).

The relationship between khat use and common mental illness like depression being associated with chewing khat and symptoms appears on cessation of use and associated with self-harm and suicide. It also improves cerebral blood flow, mental alertness prevents anemia and makes individuals energetic; in relation to this effect regular khat chewing is thought to be a predisposing factor for gastritis and peptic ulcer disease, mental illness (brain toxicity), cardiac arrhythmia, tooth decay and constipation (47).

The prevalence of the common mental illness like depression in Ethiopia 5% and substance abuse disorders like Alcohol-problem drinking 2.2-3.7%, Alcohol dependence 1.5% ,Cannabis abuse 1.5%, as well as the impact in terms of suicide attempts 7.7/100000/year and completed suicide 32%. These findings are very similar to the levels that would be expected in Western settings and not just now the problem of the Western society (13).

Studies on the prevalence of common mental illness in Ethiopia are scarce ; more specifically in a rural area of Ethiopia, common mental illness is the leading non-communicable disorder comprising 11% of the total burden of disease (11,13,48).The prevalence of common mental illnesses (CMI), like depressive, anxiety and somatoform disorder ranges from 10 % to 40 % of adults in primary-care settings ,but recent study in Ethiopia showed that common mental illness contribute 12.45% burden of disease (49, 50).

Although recent community base study conducted in Jimma town shows that prevalence of common mental illness to be 22.7 %(51) , in Butajira 17.4%(52) , in Addis Ababa 17.4%, 11.7% respectively (53) , 32.4% in Kombolcha town (54) and 17.7% working adults in Addis Ababa (11); result from this high prevalence of common mental illnesses in Ethiopia leads to poverty, malnutrition, disability, stressful life events ,psychosocial distress and consequently it also increases risk for mortality in the our country (1,13 , 55).

2.2.5. CONCEPTUAL FRAME WORK

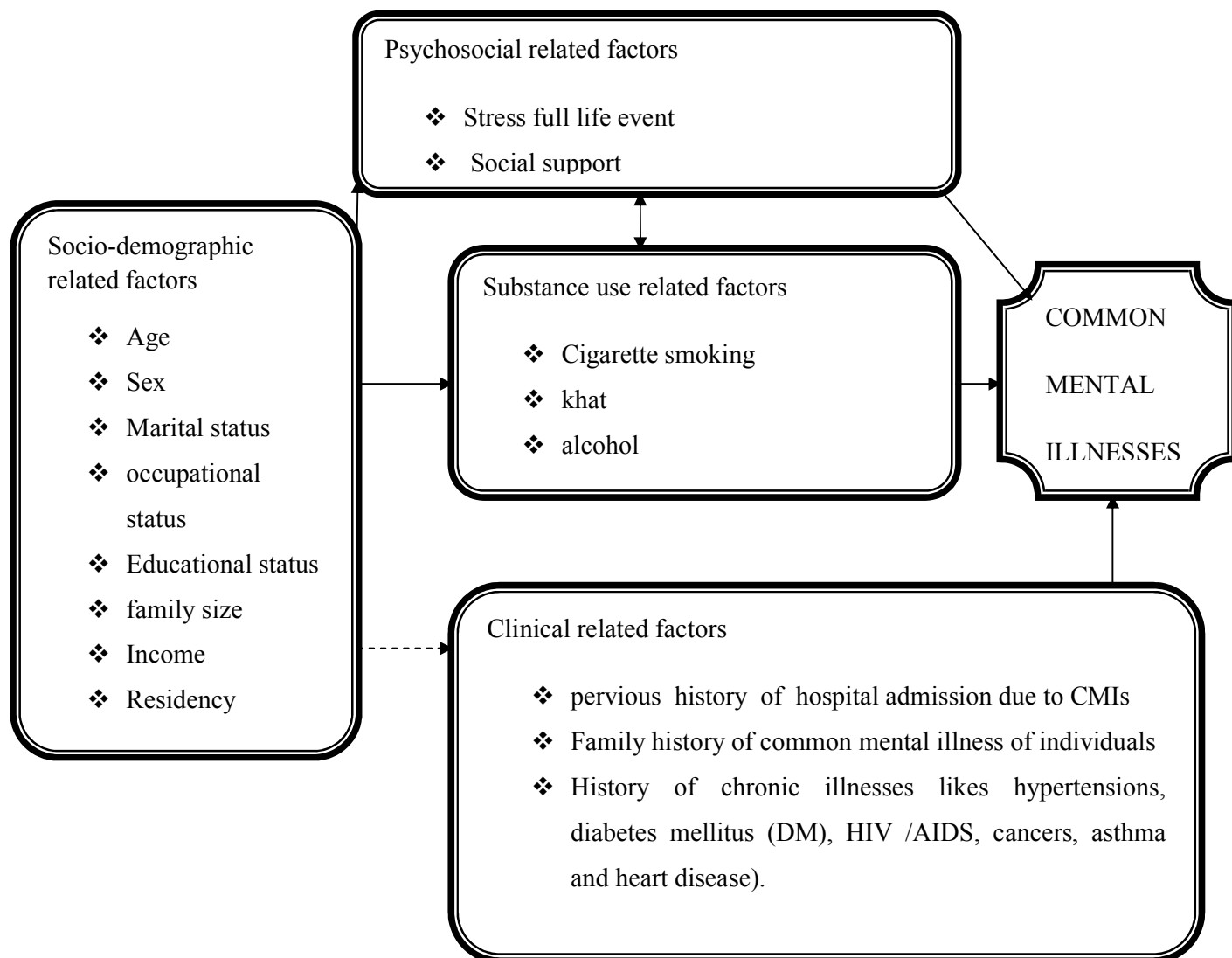


Figure 1: Conceptual framework after reviewing of different literatures on prevalence CMIs and associated factor in Hadiya zone, south of Ethiopia, June, 2016.

2.2.6. SIGNIFICANCE OF THE STUDY

This study will provide information on the current status of prevalence of common mental illnesses and its associated factors. The results of this study will also, helps policy makers, program managers and advocates to design and focus on intervention. It can be the base for next study, to plan health education, promotion and implementation.

The results of the study will bring the research gaps, also it will provides awareness services for the mentally ill people in addition to assessment and identification, further- more, the out -comes will be used as a reference for those who are interested to conduct a research on the same topics.

CHAPTER THREE

3. OBJECTIVES

3.1. GENERAL OBJECTIVE

To assess the prevalence and associated factors of common mental illnesses among persons of working age in Hadiya zone, south of Ethiopia, 2016.

3.2. SPECIFIC OBJECTIVES

To assess the prevalence common mental illness among persons of working age in Hadiya Zone.

To identify factors associated with common mental illnesses among persons working age in Hadiya Zone.

CHAPTER FOUR

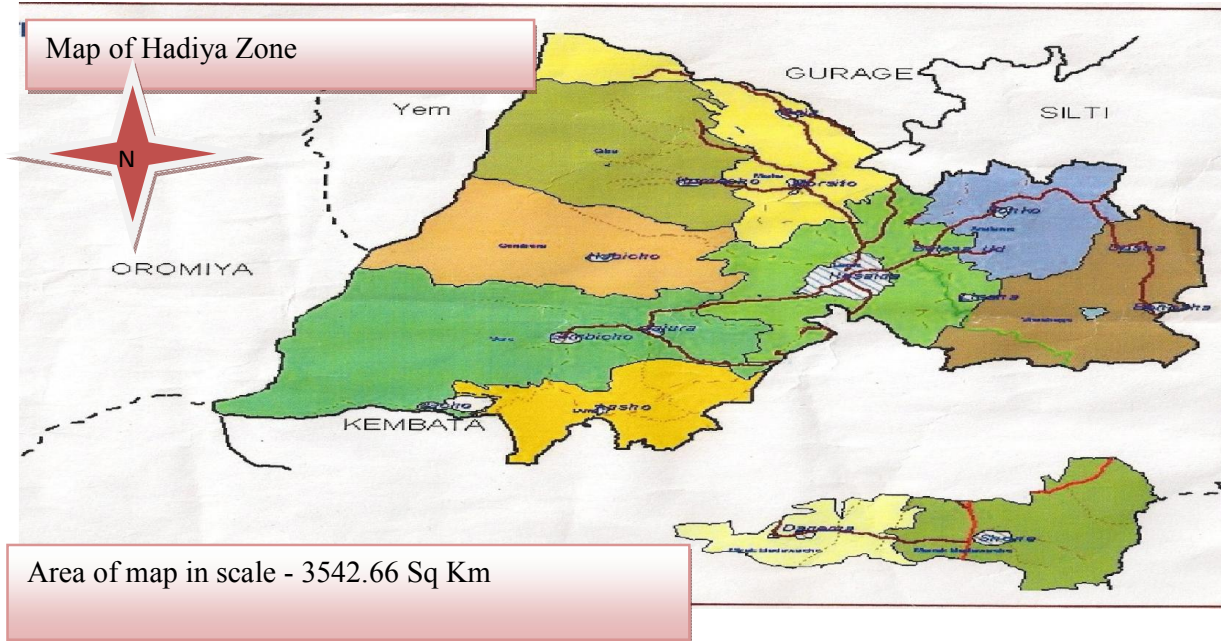
4. METHODS

4.1. STUDY AREA AND PERIOD











The study is conducted in Hadiya zone from February to March 2016 on individual's house -holds. The zone is found in southern nation nationality people regional State. The zone located in south west of Ethiopia, 232 km far away from Addis Ababa and 194 km from regional city, Hawassa. Administratively, Hadiya zone organized by one town ,10-districts and 329-kebeles 303-peasant association, 1-city administration and 25-district towns and an estimated population size of 1,547,848. Estimated number of households of the zone based on the mini EDHS,2014 report which was about 315,887(4.9%), which comprises of an estimated 804,881 adult populations from age 15 to 64 years (52%) based on 2007 census conversion factor projection and has a population density of 366 inhabitants per km².

In the zone there are a total of 441 health institutions from this there is 1 zonal hospital, 2 primary hospitals, 55 functional health centre, 293 health posts and 67 different level private clinics and 23 private pharmacies were present which deliver routine health services to the community. Health coverage is not yet satisfied and all health facilities are not currently providing psychiatrics service for mentally ill patients (56-58)

ZONAL BACK GROUND



Source ©DRMFSS Information Management 2012

Key (Legend)			
Administrative Boundaries			
			
Lemo woreda	Gombora Woreda	Gibe woreda	Misha woreda
			
Ana lemo woreda	Snashogo woreda	Duna woreda	
			
Hosanna town	Road	Boundaries	

Bordered by Gurage Zone in the North, Silte Zone in the East, Kembata and Alaba Zone in the South, Yem Special Woreda and Omo River in the west

Figure 2: Map of Hadiya zone, SNNPR, in June, 2016

4.2. STUDY DESIGN

A community based cross-sectional study was conducted in Hadiya zone, South of Ethiopia.

4.3. SOURCE POPULATION

All working age adults whose ages 15 to 64 years old who lives in Hadiya zone, South of Ethiopia was the source population

4.4. STUDY POPULATION

All selected working age adults whose ages 15 to 64 years old and those who live in study area were included in the study.

4.5. INCLUSION AND EXCLUSION CRITERIA

4.5.1. INCLUSION CRITERIA

All working adult persons whose ages from 15 to 64 years old who was able to speak, communicate and who lived in study area at least 6 months or more, was included.

4.5.2. EXCLUSION CRITERIA

Individuals who were seriously ill (those who were unable to give the required information) during the data collection was excluded.

4.6. SAMPLE SIZE DETERMINATION AND SAMPLING PROCEDURE

4.6.1. SAMPLE SIZE DETERMINATION

The sample size was calculated using single population proportion formula, considering the following assumptions and taking prevalence of common mental illnesses as 32.4% based on a study done in Kombolcha town (54), $n = \frac{(Z_{\alpha/2})^2 p (1-p)}{d^2}$ Where n = the desired sample size P = prevalence of common mental illnesses= 32.4 % (which is taken from study conducted in Kombolcha north east Ethiopia) $Z_{1-\alpha/2}$ = Critical value at 95% confidence level (1.96) d = the margin of error = 5% $n = \frac{(1.96)^2 \cdot 0.324(1- 0.324)}{(0.05)^2} = 337$ and Using design effect (Deff=2), because two stage sampling technique used, the final sample size required is: $2 \cdot 337 = 674$ For possible none response during the study the final sample size was increased by 10% to: $n = 674 + 10\%$ of 674 which is: 67.4 By adding then, the total sample sizes was 742.

4.6.2. THE SAMPLE SIZE FOR SECOND OBJECTIVES

Table 1.shows the sample size for second objectives by using Epi info version 7

Variables	Assumption	Sample size
Chronic illnesses	OR= 2.9,P=53.4%, Ratio 1:1, power=80%,CI=95%	150
Khat	OR= 2, P=48.5%, Ratio 1:1, power=80%,CI=95%	300
Alcohol consumption	OR=2.45, P =23.1%, Ratio 1:1, power=80%,CI=95%	225
Smoking	OR=6.7, P=73%, Ratio 1:1, power=80, CI=95%	53

Since sample size for single population proportion was larger than sample size calculated for associated factors(150,300,225 and 53) ,so the sample size 742 was sample size of the study.

Where **P**, percent of out come in unexposed groups **Ratio**, unexposed to exposed **OR**, odds of exposed to unexposed and **power**, the probability of rejecting the null hypothesis when it is false.

4.5.3 SAMPLING PROCEDURE

Two stage stratified sampling technique was used to get the required study subjects. At stage one from 11 woredas of zones, 4 woredas was selected by stratified random sampling technique including one town, three rural woredas and there were 107 total kebeles in the selected woredas.

At the 2nd stage from 107 total selected kebeles in the woredas, from 8 kebeles in town which 2 kebeles, and there were 99 kebeles in the selected rural woredas, from which 25 kebeles was selected via simple random sampling methods. The reason selecting 27 kebeles out of 107 total Kebeles were by considering resource. A census was conducted in the selected kebeles before data collection then an eligible respondent was registered from family folders and a code number was given to eligible households. There were 22332 total households numbers in the selected woredas and 5635HHs numbers in the selected kebeles which comprises of an estimated 236972 adult populations from age 15 to 64 years i.e. 117,230 male & 119,742 female.

Households were selected by computer generated random number and one candidate from each household was interviewed. The samples were allocated to each kebele proportionally based on the household size of the kebele. Initial starting households were selected from sample by use of a lottery method which was used as a starting point in the process of data collection.

For eligible participant which was not be found at home, the interviewers were revisit the households at least 3 times at different time intervals and when interviewers failed to get the eligible participant, the households were registered as non response rate, where more than one eligible adults were found, lottery methods was used to select one individual personals that particular households b/n the age of 15 to 64 years until to get the total required samples sizes (Fig 3).

SCHEMATIC PRESENTATION OF SAMPLING PROCEDURES

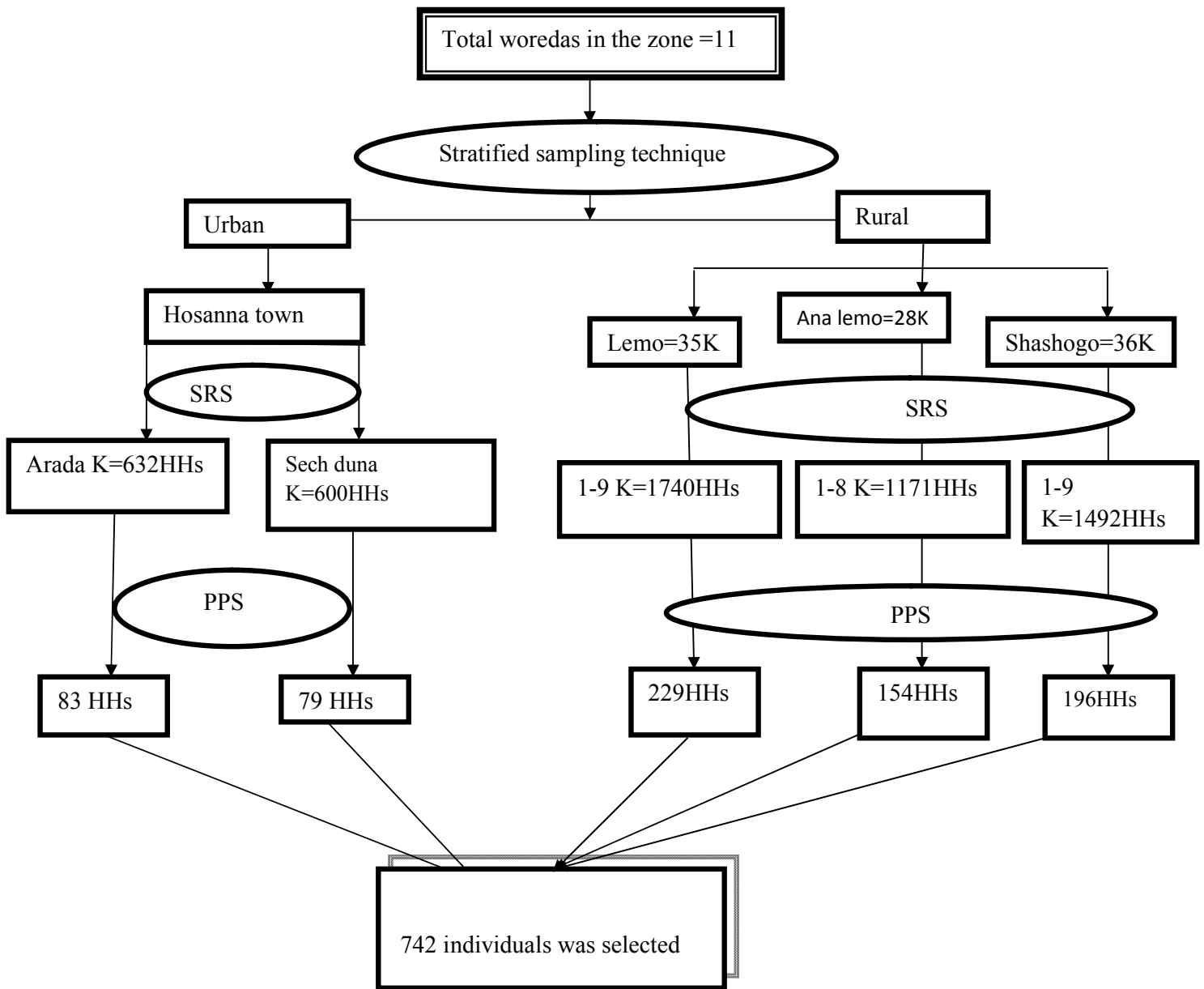


Figure 3 : Schematic presentation of sampling procedure on prevalence CMIs and associated factors in Hadiya zone, south of Ethiopia, in June, 2016.

4.7. DATA COLLECTION PROCEDURES

Data was collected using structured interviewer administered questionnaire to identify common mental illnesses were interview taken by using SRQ. The questionnaire was prepared by English and then translated to local language Hadiyisa back to English languages in order to check consistence.

4.8. INSTRUMENTS AND MEASUREMENTS

Originally the SRQ consists of 25-item questionnaire developed by the WHO to screen for common mental illness (55). The original SRQ instrument was designed to screen psychotic (4 items), one asking about fits (convulsions) and 20 items neurotic or non-psychotic disorders. In some studies just the neurotic and psychotic items were used and these was referred as SRQ-24 and because of the 4 psychotic items were low sensitivity and specificity. Due this study focuses on SRQ -20 neurotic or non-psychotic items were widely used in epidemiologic studies, hence referred as SRQ-20. The SRQ-20 was translated and validated for use in Ethiopia some two decades ago (59).

The SRQ-20 asks respondents whether, within the 4 weeks before the interview, they had experienced symptoms associated with emotional distress, such as crying, inability to enjoy life, tiredness, and suicidal thoughts. Reliability coefficient of Cronbach's α was considered and it shows internal consistency of the items and when coefficient ≥ 0.71 .

The validation study conducted urban and rural communities was considered and using cut off points those who was answered 'yes' to five or more questions from the SRQ-20 was defined as having common mental illnesses (53). Because of high illiteracy rate in Ethiopia interviewer based administered questionnaire was used. Quantitative data collected by face-to-face interviewing the respondents with-20 structured-self- reporting questionnaire (SRQ 20) was translated in local Hadiyisa language version and the questioners having five parts the first containing socio demographic data (28 items), the second part includes symptoms of common mental illness (20 items). Presence of CMIs were determined on the basis of any of the combination of depressive, anxiety and somatic symptoms present at clinically significant level and the third part contains questions to assess the presence of substance use (26 items), the fourth parts contains clinical information related which contains (33 items) and the fifth parts contains in relations to psychosocial factors (7 items in relation to stressful life events and 12 items in relation to social supports) and the cut-off point of ≥ 5 , the SRQ-20 had a sensitivity and specificity of 78.3% and 75.2% respectively to diagnose CMIs (EL-Rufie and Absood)(60,61).

The questionnaire was translated to Hadiyisa language to be understood by all respondents and translated back to English were interviewers proceeding from house to house. They were introduced themselves and explain the purpose of the study using specific statements in a standard procedure. Consent to participate was obtained from each interviewee. One supervisor and 6 data collectors were employed for 19 working days (from February 2 to March 2 /2016) and trained for two days about the time of data collection, timely collection and reorganization of the collected data and submission on due time. The data was collected by three BSC nurses and three clinical nurses after 2 days training.

4.9. VARIABLES OF THE STUDY

4.9.1. DEPENDENT VARIABLE

Common mental illnesses

4.9.2. INDEPENDENT VARIABLES

1. Psychosocial related factors

Stress full life events and social support

2. Socio-demographic related factors

Age, sex, marital status, occupation status, educational status, family size, income and residency

3. Substance use related factors

Cigarette smoking, khat chewing and alcohol drinking

4. Clinical related factors

Pervious history of hospital admission, family history of common mental illness, in the individuals and history of presence chronic illnesses likes hypertension, diabetes, HIV /AIDS, cancers, asthma and heart disease.

4.10. OPERATIONAL DEFINITIONS

Common mental illnesses: In this study working age adults who were found to have five or more symptoms of the 20 SRQ in the last 4 weeks were considered as having common mental illnesses. This cutoff is based on reports from the validation study of SRQ20 conducted by (EL-Rufie and Absood (60, 61)).

Substance use:-Current users: when individuals or study subjects uses specific substances like alcohol, smoking cigarette and khat currently.

Ever users: when study subjects or individuals uses specific substances like alcohol, cigarette, and khat even once in their life time.

Never users: when study subjects or individuals no uses specific substances like alcohol, cigarette, and khat even once in their life time.

Presence of chronic diseases: Individuals who were have at least one or more of six chronic medical diseases like HIV/AIDS, hypertension, diabetes, cancer, asthma and chronic heart disease presented in last 6 months were grouped as single variable having presence of chronic diseases.

Presence of stressful life events: Individuals who were have at least one or more stressful life events like close family member died, divorce, and injuries like car accidents, suicide and homicide in the family member in the last 6 months were grouped as single variable having presence of stressful life events.

Income: Those individuals having monthly income less or equal 1205 ETB were considered as poor and those individuals having monthly income above 1205 ETB were considered as rich (62)

Level Social Support, High level of social support :-individuals who were have get at least three and above definitely/probably true score from six positive social support questioner and three and above definitely/probably false score from six negative social support questionnaire was considered as high level social support(63) ,

Low level of social support:- those individuals who get less than three definitely/probably true score from six positive and those individuals who were also get less than three definitely/probably false score from six negative social support questionnaire were considered as low level social support questionnaire(63).

Family size: The total number of people lives in a house during the study period.

Educational status: Refers to the educational status the individuals attained and it was categorized into four groups as no education, primary, secondary and higher education categories

4.11. DATA PROCESSING AND ANALYSIS

Data was checked, coded and entered in to EPI Data version 3.1 and exported to SPSS (Statistical Package for Social science) version 20 software statistical packages for analysis. Data entry was made by the principal investigator. The description of variable were done and presented in frequency, tables, graphs , charts and the association b/n independent and dependent checked by using chi-square statistic (χ^2) was used .The presence and strength of the association b/n independent and dependant variables were checked by using adjusted odd ratios (AOR) and 95 % confidence interval using logistic regression. Variables having P-values less than 0.25 in bivariate analysis was entered into the multivariate analysis using backward elimination. The model fitness was checked by using Hosmer and Lemeshow test which was 0.796.The final result was interpreted based upon their association of significance (i.e. $p < 0.05$).

4.12. ETHICAL CONSIDERATION

Ethical clearance was obtained from the Institutional Review Board (IRB) of Jimma University (JU) College of Health Sciences. In order to obtain permission formal letters from the Institutional review board was communicated to-Zonal-Health Department and then letter of permission was obtained from administrative bodies of the Zone to the district Offices, Health centers and kebeles. Finally oral consent was obtained from each study participants before making interview and confidentiality was secured. In addition all the responses were kept confidential, anonymous and participants can withdraw from the study at any time during interview.

4.13. DATA QUALITY ASSURANCE

To assure the quality of the data emphasis was given in designing data collection instrument for its simplicity and Standardized community rating scales ,validity and reliability was considered and training was given to the data collectors. The questionnaire was prepared by English and then translated to local language Hadiya and back translated to English in order to check consistence. The questionnaire was pre-tested on 37 individuals in near by kebeles out off study area to check consistency and interview was conducted in private. Throughout the course of the data collection, interviewers were supervised at each site, regular meetings were held between the data collectors, supervisor and the principal investigator together in which

problematic issues arising from interviews which was conducted , discussed and decisions were reached. Two more additional visits were made if a respondent was not being found in the first visit. The collected data was reviewed and checked for completeness before data entry; the incomplete data was discarded. Data entry format template was produced and programmed.

4.14. DISSEMINATION PLAN

The result of the study will be presented to Jimma university(JU) collage of Health science, department of epidemiology and a short report will be communicated to the Zonal Health department. Presentations at professional, local and national meetings finally it will be communicated for publication at reputable journals.

CHAPTER FIVE

5. RESULTS

5.1. CHARACTERISTICS OF RESPONDENTS

Among 742 study respondents ten questionnaires found to be incomplete, ten individuals were not found at home on three consecutive visits due to this the 20 respondents excluded from the analysis, therefore the response rate of this study was 97.3%.

5.1.1. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

From out of 722 respondents, majority of 64% respondents were males. Around 61.1% and 72.3% of the respondents were age b/n 35-54 years and live in private house respectively. The mean (\pm SD) age of respondents was found to be 31.6 (\pm 8.89) year. More than half of respondents 67.2% were ever married and 51.4% respondents were protestant in religion. Majority of respondents 71.5% had family size three and above and 32% respondents were government employee, 72.9% Hadiya in ethnicity and 77.7% of them were rural in residence. Less than half of 36.7% respondents have attended higher education. Majority of the respondents 66.8% where live with out relatives and 8.7% of respondents relation to head of household as head. Majority of respondents 51.2% of the respondents had monthly income less or equal to 1205 ETB.

Table2. Socio-demographic characteristics of the respondents in working age adults in Hadiya zone, SNNPR, in June, 2016.

Variables	Categories	Frequency (%)
Age in years	15 to 34	46(6.4)
	35 to 54	441(61.1)
	55 to above	235(32.5)
House ownership	Private	522(72.3)
	Rented	200(27.7)
Sex	Male	462(64)
	Female	260(36)
Religion	Orthodox	165(22.9)
	Muslim	143(19.8)
	Protestant	371(51.4)
	Catholic	37(5.1)
House hold family size	Others*	6(0.8)
	≤2	206(28.5)
	≥3	516(71.5)
House hold monthly income in birr	Rich	352(48.8)
	Poor	370(51.2)
Occupational status	Farmer	124(17.2)
	House wife	109(15.1)
	Merchant	170(23.5)
	Government	231(32)
	Private/NGO	24(3.3)
	Daily laborer	29(4)
	Other	35(4.8)
Marital status	Single	237(32.8)
	Ever married	485(67.2)
Level of education	No education	43(6)
	Primary (grade 1-8)	211(29.2)
	Secondary (grade 9-12)	203(28.1)
	Higher	265(36.7)
Ethnicity	Hadiya	526(72.9)
	Kembata	73(10.1)
	Amhara	19(2.6)
	Gurage	36(5)
	Silte	49(6.8)
	Wolaita	11(1.5)
	Others**	8(1.1)
Residence	Urban	160(22.2)
	Rural	562(77.8)
Live with you relative	Yes	240(33.2)
	No	482(66.8)
Relationship to head of household	Head	63(8.7)
	spouse partner	54(7.5)
	Son	54(7.5)
	Daughter	59(8.2)
	Others	10(1.4)

Where *=4 Joba witness, 2 No religion **=3 Oromo, 4 Tigre and 1 Alaba

5.1.2. SUBSTANCE USE RELATED CHARACTERISTICS OF THE RESPONDENTS

Out of the total 722 study respondents 29.1 % were previous history khat users, 12.6% were used weekly. Eighty four (11.6%) of the respondents were current cigarette smoker and around 8.9% were smoke daily. Less than half 20.8% of the respondents were alcohol drinkers, 9.6% were drinks 1-4 days/week and 9.4% respondents were used some times with meals.

Table3. Substance use related characteristics of the respondents among working age adults in Hadiya zone, SNNPR, in June, 2016.

Variables	Categories	Frequency (%)
Khat user	Yes	210(29.1)
	No	512(70.9)
Frequency of khat use	Daily	67(9.3)
	Weekly	91(12.6)
	Monthly	52(7.2)
Cigarette smoker	Yes	84(11.6)
	No	638(88.4)
Daily smoker of cigarette	Yes	64(8.9)
	No	20(2.8)
Alcohol user	Yes	150(20.8)
	No	572(79.2)
Frequency of alcohol drink	Daily	8(1.1)
	5-6 days per week	20(2.8)
	1-4 days per week	69(9.6)
	1-3 days per month	30(4.2)
	Less than once a month	14(1.9)
Consume with meal	Usually with meals	67(9.3)
	Sometimes with meals	68(9.4)
	Rarely with meals	13(1.8)
	Never with meals	2(0.3)

5.1.3. CLINICAL RELATED CHARACTERISTICS RESPONDENTS

Out of 722 respondents 10.1% were have current family history of chronic medical illness, 11.6% were reported at least one chronic medical illness in the past, 9.7% respondents were have pervious history of hospital admissions and 5.8% respondents were stay in hospital 2-3 times/month. Less than half respondents 9.1% respondents take treatment in health institution.

Table4. Clinical information related characteristics of respondents among working age adults in Hadiya zone, SNNPR, in June, 2016.

Variables	Categories	Frequency (%)
previous family history of chronic illness	Yes	73(10.1)
	No	649(89.9)
Past history of chronic illness	Yes	84(11.6)
	No	638(88.4)
Pervious history of chronic illness	Yes	84(11.6)
	No	638(88.4)
pervious history of hospital admission secondary to chronic medical illness	Yes	70(9.7)
	No	14(1.9)
Length of hospital stay in weeks	Less than one week	9(1.2)
	Weekly	16(2.2)
	2-3 times per month	42(5.8)
	Monthly	14(1.9)
Treatment during the intervention	Yes	70(9.7)
	No	14(1.9)
Treatments taken during intervention	Herbal or traditional healers medication	2(0.3)
	Health institution medication	66(9.1)
	Home medication	2(0.3)

5.1.4. PSYCHOSOCIAL RELATED CHARACTERISTICS OF THE RESPONDENTS

Among 722 study respondents where two or more stressful life events were reported like 8.4% respondents family member were suffered by injury, 18.6% were report family members died, 40% were reported have major financial crisis, 7.5% were dismissed from job and 6.6% were unemployed or not able to work respectively, Where about 21.5% the respondents have history of high level of social support and the remaining 78.5% respondents have history of low level of social support.

Table5. Psychosocial related characteristics respondents among the working age adults in Hadiya zone, SNNPR, in June, 2016.

Variables	Categories	Frequency (%)
Family member suffered by injury like car accidents, homicide, suicide or an assault	Yes	61(8.4)
	No	661(91.6)
Family member died	Yes	134(18.6)
	No	588(81.4)
Financial crisis	Yes	289(40)
	No	433(60)
Dismissed from job	Yes	54(7.5)
	No	668(92.5)
Unemployment or not able to work	No	48(6.6)
	No	674(93.4)
Social support	Low	567(78.5)
	high	155(21.5)

5.1.6. PREVALENCE OF COMMON MENTAL ILLNESS

The distribution of SRQ 20 showed a median of 4 and standard deviation of ± 3.54 . More than half of respondents 53.9% of them reported less than five symptoms, 41.1% were reported from five up to nine symptoms, 4.6% of them were reported from 10 up to 14 symptoms and the remaining 0.4% of them was reported 15 or more of the 20 SRQ symptoms.

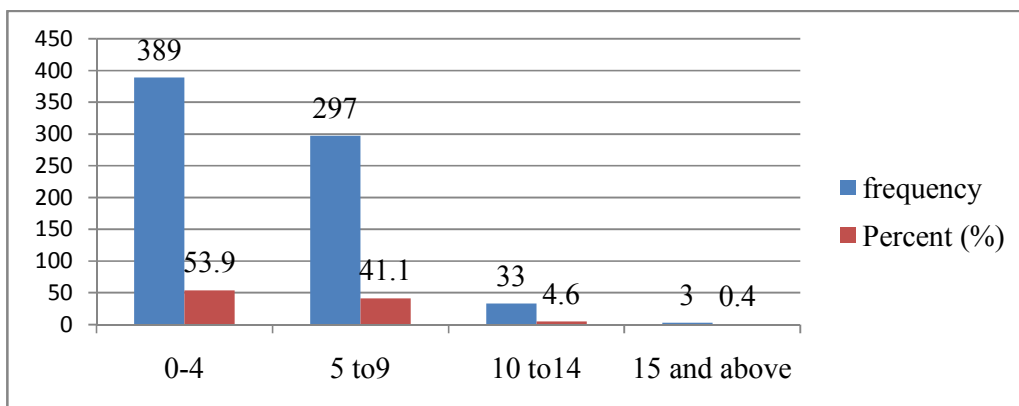


Figure 4. Shows the prevalence of common mental illness at different cut off points among working age adults in Hadiya Zone, SNNPR in June, 2016.

Considering five as a cutoff point, almost 46.1% of the respondents with 95% CI (42.7, 49.7) scored above the cutoff point indicating presence of CMIs.

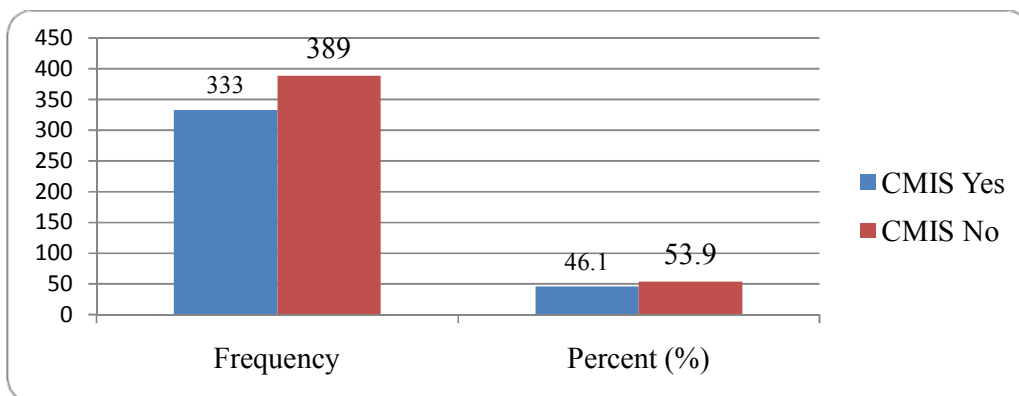


Figure 5. Shows the prevalence of common mental illness among working age adults in Hadiya zone, SNNPR, in June 2016

Male (48.7%) more than female, age groups from 35 to 34 years (49.7%) than from age groups 55 to above, large family size (50.2%) than small family size, ever married (49.8%) than single, current cigarette smoker (72.6%) than non smoker, previous khat chewers (73.3%) than non-chewers, previous family history of chronic illness (70.2%) than non-previous history of chronic illness, current family history of chronic illness (14.4%) than non-current family history of chronic illness, close family, friend or another relative died (59.8%) than non history of close family, friend or another relative died, major financial crisis (64.7%) than non financial crisis, dismissed from job (74.1%) than non dismissed from job had common mental illness.

Table 6. Bivariate binary logistic regression analysis of associated risk factors of common mental illness among of working age adults in Hadiya Zone, SNNPR, in June, 2016

Variable	Categories	Common Mental Illness		COR(95%CI)	P-Value
		Yes CMI in (%)	No CMI in (%)		
Sex	Male	225(48.7%)	237(51.3%)	1	
	Female	108(41.5%)	152(58.5%)	0.75(0.551,1.017)**	0.064
Age years	15to 34	20(43.5%)	26(56.5%)	0.78(0.423,1.438)	0.426
	35to 54	219(49.7%)	222(50.3%)	1	
	55to above	94(40.4%)	141(60%)	0.68(0.49,0.931)**	0.017
House hold family size	≤2	74(35.9%)	132(64.1%)	0.56(0.399, 0.776)**	0.001
	≥3	259(50.2%)	257(49.8%)	1	
Marital status	Single	89(37.6%)	148(62.4%)	1.68(1.226,2.313)**	0.001
	Ever married	244(49.8%)	389(53.9%)	1	
Cigarette smoker	Yes	61(72.6%)	23(27.4%)	3.57(2.155,5.911)**	.000
	No	272(42.6%)	366(57.4%)	1	
khat user	Yes	154(73.3%)	56(14.4%)	5.12(3.585,7.302)**	0.000
	No	179(35%)	333(65%)	1	
Current family history of chronic illness	Yes	48(14.4%)	25(64%)	2.45(1.478,4.074)**	.001
	No	285(43.9%)	364(56.1%)	1	
Previous family history of chronic illness	Yes	59(70.2%)	25(29.8%)		.000
	No	274(42.9%)	364(57.1%)	3.14(1.194,5.535)**	
Close family, friend or another relative died	Yes	150(59.8%)	101(40.2%)	2.34(1.709,3.196)**	.000
	No	183(38.9%)	288(61.1%)	1	
Financial crisis	Yes	187(64.7%)	102(35.3%)	3.6(2.636,4.928)**	.000
	No	146(33.7%)	287(66.3%)	1	
Dismissed from job	Yes	40(74.1%)	14(25.9%)	3.67(1.952,6.849)**	.000
	No	293(43.9%)	375(50.1%)	1	

Where ** shows the variable candidate at p-value ≤0.25 for multi variable analysis

5.1.7. FACTORS INDEPENDENTLY ASSOCIATED WITH COMMON MENTAL ILLNESSES

Factors independently associated with common mental illnesses in multivariate analysis; lower age, small family size, and previous family history of chronic medical illness, having single marital status, previous history of khat chewing and presence of any stressful life event like major financial crisis were significantly associated with CMIs. The prevalence of CMIs was found to be 46.1% (95% CI: 42.7, 49.7%). The age from 55 to above years were almost 46% less likely develops CMIs than from age 35 to 54 years (AOR=0.54, CI: 0.36, 0.804). Those respondents having single marital status 52.6% less likely develops CMIs than married (AOR=0.474, CI: 0.307, 0.734). Those respondents were having previous history of chronic medical illness like HIV/AIDS, hypertension, diabetes, cancer, asthma and chronic heart disease 1.9 times more likely develops CMIs than previous history of chronic medical illness (AOR=1.9, CI: 1.109, 3.279). The respondents were having family size, 1.9 times more likely develops CMIs than family size (AOR=1.9, CI: 1.206, 2.846). Those were having previous history of khat chewing 4.5 times more likely develops CMIs than those having no previous history of khat chewing (AOR=4.5, CI: 3.066, 6.603) and those respondents having presence of any stressful life event like having major financial crisis have 2.9 times more likely develops CMIs than those have no history of stressful life events (AOR=2.9, CI: 2.007, 3.978).

Table 7.shows Final multivariable binary logistic regression model showing risk factors independently associated with common mental illness among the person of working age in Hadiya Zone, Southern Ethiopia, in June, 2016.

Variables	Categories	Common Mental Illness		COR(95% CI)	AOR(95%CI)	p-value
		Yes CMI in (%)	No CMI in (%)			
Age years	15to34	20(43.5%)	26(56.5%)	0.78(0.423,1.438)	1.085(0.531,2.218)	0.822
	35to54	219(49.7%)	222(50.3%)	1	1	
	55to above	94(40.4%)	141(60%)	0.67(0.49,0.931)	0.538(0.36,0.804)*	0.002
Family size	≤2	74(35.9%)	132(64.1%)	0.56(0.39,0.78)	1.853(1.206,2.846)*	0.005
	≥3	259(50.2%)	257(49.8%)	1	1	
Marital status	Single	89(37.6%)	148(62.4%)	1.7(1.226,2.313)	0.474(0.307,0.734)*	0.001
	Ever married	244(49.8%)	389(53.9%)	1	1	
Khat chewer	Yes	154(73.3%)	56(14.4%)	5.12(3.56,7.3)	4.5(3.066,6.603)*	0.000
	No	179(35%)	333(65%)	1	1	
Chronic illness	Yes	48(14.4%)	25(64%)	3.14(1.194,5.535)	1.907(1.109,3.279)*	0.02
	No	285(43.9%)	364(56.1%)	1	1	
Financial crisis	Yes	187(64.7%)	102(35.3%)	3.6(2.64,4.93)	2.825(2.007,3.978)*	0.000
	No	146(33.7%)	287(66.3%)	1	1	

Where 1 =Reference,* shows the variable significant at p-value < 0.05 in multi variable analysis

CHAPTER SIX

6. DISCUSSION

6.1. PREVALENCE OF COMMON MENTAL ILLNESS

This study showed that the prevalence of CMIs among the study participants in Hadiya Zone was 46.1%, which was found to be 1.3 folds higher than the study conducted in rural and urban community in South Africa which was 34.9% (28). The Epidemiologies of common mental illnesses were prevalent mostly in developing (low-income) countries like in sub saran Africa than developed country. This study it showed that the prevalence of common mental illness higher than a study conducted in sub saran Africa show that 20 to 30% (1).

In Ethiopia common mental illness was the leading non-communicable disorder in terms of burden. The average prevalence of common mental illnesses in Ethiopia was 15% for adults and 11% for children. In rural community setting of Ethiopia it comprises 11% of the total burden of disease, when compare to this study the prevalence of common mental illness higher in this study area (11, 13).

The prevalence of common mental illness in this study higher than the prevalence study done after development of screening instrument like self reporting questioners (SRQ) which was 12%, 12.3%, 17.2% in a small sample community in Addis Ababa, Jimma and in a larger sample of a rural community in Ethiopian adult population respectively (8), the prevalence of common mental illness in this study higher than recent community base study conducted in Jimma town which was 22.7 % (51) , in Butajira 17.4% (52) , in Addis Ababa 11.7%,17.4% respectively (53) , 32.4% in Kombolcha town (54) and 17.7% working adults in Addis Ababa (11).

The high prevalence of common mental illnesses in this study area might be due to they were exposed groups to many related factors like substance use, social ,economic, family environment or difference in geographic location and demographic related factors like age and sex.This could explain the difference with world wide estimates of common mental illness.

6.2. ASSOCIATED RISK FACTORS OF COMMON MENTAL ILLNESS

6.2.1. SOCIO-DEMOGRAPHIC RELATED FACTORS

In this study a small family size was significantly associated with common mental illnesses. This finding similar with the findings in Kombolcha, Northeast, Ethiopia (54), in contrast to this study, more common in those with large family size than small family size the study conducted in Ethiopian health center teams (1). This could be explained by the low supportive structure of small extended families might be risk individuals for common mental illnesses than large extended family might protect individuals from CMIs.

In this study age from 55 to above years less likely develops CMIs than from age 35 to 54 years. It shows age inversely associated with common mental illnesses. This finding similar with the findings the study conducted in Butajira, Southern Ethiopia (49). One possible explanation that might be younger adults having life stressors due having changing the working environment and increasing socioeconomic burdens compare with older adults. Adults having higher age groups were more likely to have an accommodation or coping mechanism of stressful life events and biological changes as age progress.

In this study those respondents having single marital status less likely develops common mental illness than married. This finding in contrast with the findings the study conducted in Ethiopian health center teams (1). It may be due to unhappy marriage like forced marriages.

6.2.2. SUBSTANCE USE RELATED FACTORS

This study demonstrated that there was higher prevalence of common mental illnesses among pervious history of khat chewer than non chewer. This study was similar the study conducted in south west Ethiopia (47), in Geneva (17), Sao Paulo (35) and South eastern Brazil (36).

Regular khat chewing was thought to be a predisposing factor for gastritis, peptic ulcer disease, cardiac arrhythmia, tooth decay and constipation (47). This may be due to that substance use leads to disorganization in life function, weakened relationship and sleep difficulty which leads to steers. Moreover, substance use was associated with increased absenteeism from work and poor academic performance which can further lead to common mental illness.

6.2.3. CLINICAL RELATED FACTORS

In this study previous family history of chronic illness significantly associated with common mental illness. This study was similar with study conducted in Kombolcha (54), in Geneva (32) and Butajira (52). Chronic illnesses likes Hypertensions, Diabetes mellitus(DM), Human Immune Virus ,Acquired Immune Deficiency Syndrome (HIV /AIDS), any Cancers, Asthma, and Heart disease play important role for development of common mental illnesses like depression, anxiety and somatic disorders .For instance, in Diabetes, total health expenditure is four and half times higher for individuals with depression than for those without depression(17, 33). The most common psychiatric disorder in patients who are hospitalized in emergency wards is anxiety, while patients admitted in medical wards most of the time suffering with depression (36)

This may be due to family history of chronic medical illnesses high health expenditure, distressing experiences and side effects secondary to limited insurance converge system, limited mental health service coverage like mental health facility, inadequate numbers of trained mental health professionals, community care facilities and shortage of resources like drugs to provide services those who are affected by CMIs secondary to chronic illness.

6.2.4. PSYCHOSOCIAL RELATED FACTORS

In this study of any stressful life events like major finical crisis were significantly associated with CMIs. This study was similar with study conducted in Gondar (64). Moreover, the study revealed that financial crisis was strongly associated with common mental illness. This is due to those respondents who have financial crisis may be due to limited insurance system for those who affected by CMIs may create stressful situation in respondents, no pocket money were more likely to experience CMIs, Moreover, respondents with financial crisis experience anxiety, irritation, and sense of haplessness and difficulty of sleeping which may further lead respondents to common mental illness.

6.3. STRENGTH AND LIMITATION OF THE STUDY

6.3.1. STRENGTH OF THE STUDY

- Among the strength of this study use of instrument which is a worldwide accepted, standardized well adopted in our country and well valid instrument to measure common mental illnesses.
- The study was community based inclusion of rural kebeles which increase representativeness of the study population is the major strength of this study.

6.3.2. LIMITATIONS OF THE STUDY

- Despite this strength, the limitation of the study the fact related to the cross sectional design used, which simultaneously evaluate variables of the effect of interest and their associated risk factors, should be emphasized. Thus it is not possible to identify whether CMIs influenced the associated risk factors or vice-versa.
- The other limitation of this study might be social desirability bias due to the sensitiveness of the issue being investigated.
- There were also limitations to use SRQ among the tools is only screening tools do no more than express the likelihood of common mental illnesses and the limitation in the ability to assess every common mental illnesses as described in ICD-10.

CHAPTER SEVEN

7. CONCLUSION AND RECCOMENDATION

7.1. CONCLUSION

This study demonstrated that common mental illnesses major public health problems in Hadiya zone with high prevalence due to having using the different cut off point in urban and rural community and they were majority age groups. Those respondents having lower age, small family size, pervious family history of chronic medical illness, having single martial status, pervious history khat chewer and those having presence of any stressful life event like major financial crisis were considered to be associated factors to the CMIs.

7.2. RECCOMENDATION

7.2.1. FOR ZONAL HEALTH DEPARTMENT AND WOREDA HEALTH OFFICE

The ZHD and WOH must have plan to have mental health service converge like mental health care facility and community care facility that provides services those who are affected by CMIs secondary to chronic illness, substance use like khat chewing and stressful life events like major financial crisis.

They should have plan to work integrate mental health services with substance use related factors like khat chewing, stressful situations specific to personals life style activities like major finical crisis and clinical related factors like on chronic medical illness.

They should also provide awareness services to the community by giving health education on prevention and promotion services with coordination other responsible body to the higher risk groups to CMIs like on young age groups, on how they accommodate or cope stressors, small family size and married, marriage based health education on those married couples.

They should have plan to train health professional refreshment training and health education on chronic medical illness on how transmit, prevent, control and treat them.

The ZHD and WOH should have plan stress management practice at the primary health care level to those who are affected by CMIs secondary to stressful life event like major financial crisis.

7.2.2. FOR RESEARCHERS

Conducting longitudinal cross sectional will give a better estimation to overcome the limitation of study.

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ANNEXES 1

ENGLISH VERSION QUESTIONNAIRES

JIMMA UNIVERSITY COLLEGE OF HEALTH SCIENCES DEPARTMENT OF EPIDEMIOLOGY

English version questionnaire on the assessment prevalence and associated factors of common mental illnesses among working age in Hadiya zone, South Ethiopia, 2016.

CONSENT FORM TO STUDY PARTICIPANTS

Good morning/afternoon. Hello, how are you? My name is _____ I am working as data collector for Mr Yilma Markos from Jimma University post graduate program; the objective of this study is to assess prevalence and associated factors of common mental illnesses in Hadiya zone, South Ethiopia. This study is important particularly to give awareness regarding the prevalence, associated factors and affected bodies to take the right actions .The results of the study will bring the research gaps in this area. It will also help community of Hadiya zone to focus on the frequent mental illnesses and provide awareness services for the mentally ill people. You are selected to participate in this study just by chance. Your willingness and cooperation for the interview is helpful in identifying problems related to the common mental illnesses and will and is quite useful to achieve the objective of the study.

I would like to ask you some questions in relation to prevalence and associated factors of common mental illnesses . It will take about 20 to 30 minutes. The information you provide us is completely confidential and will not be shared with anyone else without your consent. Your name or any identifying information will not be registered.

You may refuse to answer any question and choose to stop the interview at any time. The information you provide us is extremely important and valuable, as it will help the Government and the health facilities involved in treatment of common mental illness and provision of awareness to the community to improve services delivery. Name of Investigator: Mr Yilma Markos Tel: +251-917-189-182, Email:yilmamark@gmail.com or yilmamark12@gmail.com.

Do I have your permission to continue?

1- Yes 2 - No, if the answer is yes, give thanks and conduct the interview.

If the answer is no, give thanks and proceed to the next house holds.

Date of interview _____ Time started _____

Name of interviewer _____

Interviewer Signature _____ Respondent Signature _____

Supervisors name _____ signature _____

IDENTIFICATION

Name of woreda _____ Name of the kebele _____

Name of got _____ House number _____

PART ONE: SOCIO DEMOGRAPHIC RELATED DATA

Please, give appropriate answer concerning your demographic information.

1. Socio-demographic Characteristics

No	Questionnaire and filters	Coding categories	Code
Q101	What is your age in complete years?	_____	1
Q102	House ownership?	Private Rented	1 2
Q103	Sex?	Male Female	1 2

Q104	What is your religion?	Orthodox Muslim Protestant Catholic I have no religion Others _____	1 2 3 4 5 6
Q105	Household family size?	_____	1
Q106	What is your occupational status?	Farmer House wife Merchant Government Private/NGO Daily laborer Other, specify _____	1 2 3 4 5 6 7
Q107	What is your marital Status now?	Single Ever married	1 2
Q108	What is your ethnicity?	Hadiya Kembata Amhara Gurage Silte Wolaita Oromo Tigre Others specify _____	1 2 3 4 5 6 7 8 9
Q109	What is your residency?	Urban Rural	1 2
Q110	What is your highest level of education?	No education Primary (grade 1-8) Secondary (grade 9-12) Higher	1 2 3 4
Q111	Does your relative live with you?	Yes No	1 2
Q112	Relationship to head of household?	Head Spouse partner Son Daughter Others, specify _____	1 2 3 4 5
Q113	What is your house holds monthly income in birr?	_____ birr	1

TWO: THE SELF-REPORTING QUESTIONNAIRE (SRQ)

The following questions will be related to certain pains and problems that may have bothered you in the last 30 days. If you think the question applies to you and you had the described problem in the last 30 days, answer YES. On the other hand, if the question does not apply to you and you did not have the problem in the last 30 days, answer NO. If you are unsure about answering a question, please give the best answer you can. We would like to reassure you that the answers you are going to provide here are confidential (57).

No	Encountered health problems with in the last 4 weeks	Yes/No	Code
201	Do you often have headaches?	Yes	1
		No	2
202	Is your appetite poor?	Yes	1
		No	2
203	Do you sleep badly?	Yes	1
		No	2
204	Are you easily frightened?	Yes	1
		No	2
205	Do your hands shake?	Yes	1
		No	2
206	Do you feel nervous, tense or worried?	Yes	1
		No	2
207	Is your digestion poor?	Yes	1
		No	2
208	Do you have trouble thinking clearly?	Yes	1
		No	2
209	Do you feel unhappy?	Yes	1
		No	2
210	Do you cry more than usual?	Yes	1
		No	2
211	Do you find it difficult to enjoy your daily activities?	Yes	1
		No	2
212	Do you find it difficult to make decisions?	Yes	1
		No	2
213	Is your daily work suffering?	Yes	1
		No	2
214	Are you unable to play a useful part in life?	Yes	1
		No	2
215	Have you lost interest in things?	Yes	2
		No	2
216	Do you feel that you are a worthless person?	Yes	2
		No	2
217	Has the thought of ending your life been on your mind?	Yes	1
		No	2
218	Do you feel tired all the time?	Yes	1
		No	2
219	Do you have uncomfortable feelings in your stomach?	Yes	1
		No	2
220	Are you easily tired?	Yes	1
		No	2

PART THREE: SUBSTANCE ABUSE RELATED FACTORS

The following questions focus on personal life style activities in relation to substance use of like Khat chewing practices , Alcohol drinking , Cigarette smoking, and other substances like Hashish and sedatives use, so you will be requested to give answers about your personal life style activities on the use of these substances(65).

No	Questions and filters	yes	No
1.The following three questions are specific to Khat chewing Practices in particular			
Q303	Have you used Khat in the last 12 months?		
Q304	If yes, to Q303 what was the frequency of use?		
	Daily	1	2
	Weekly	1	2
	Monthly	1	2
	Others, specify_____		
	What was your reason(s) to use khat?		
	1. To increase work or academic performance.	1	2
	2. To get relief.	1	2
	3. To fight against fatigue and hunger.	1	2
	4. Due to academic dissatisfaction.	1	2
	5. Due to religious practices.	1	2
	6. To get acceptance from others or to be like others.	1	2
	7. To be sociable.	1	2
	8. To get personal pleasure.	1	2
	9. To increase pleasure during sexual intercourse	1	2
	10. Due to peer influence.	1	2
	11. For medical purpose.	1	2
	12. Specify if any other _____		

Tobacco Use: Now I am going to ask you some questions about various health behaviors. This includes things like smoking, drinking alcohol.			
No	Question	Response	Code
1	Do you currently smoke any tobacco products, such as cigarettes, cigars or pipes?	Yes	1
		No	2
2	Do you currently smoke tobacco products daily?	Yes	1
		No	2
3	How old were you when you first started smoking daily?	Age in years_____	1
		Don't know_____	2
4	Do you remember how long ago it was? (record only 1, not all 3)	Years_____	1
		Months_____	2
		Weeks_____	3
		Don't know_____	4

5	On average, how many of the following do you smoke each day?	Manufactured cigarettes __ Hand-rolled cigarettes ____ Pipes full of tobacco ____ Cigars, cheroots ____ Other(specify)_____	1 2 3 4 5
6	In the past, did you ever smoke daily?	Yes No	1 2
7	How old were you when you stopped smoking daily?	Age in years _____ Not known _____	1 2
8	How long ago did you stop smoking daily? (record only 1, not all 3)	Years _____ Months _____ Weeks _____ Don't know _____	1 2 3 4
9	Do you currently use any smokeless tobacco such as (snuff, chewing tobacco, betel)?	Yes No	1 2
10	Do you currently use smokeless tobacco products daily?	Yes No	1 2
11	On average, how many times a day do you use	Snuff, by mouth _____ Snuff, by nose _____ Chewing tobacco _____ Other (specify) _____	1 2 3 4
12	In the past, did you ever use smokeless tobacco such as (snuff, chewing tobacco, or betel) daily?	Yes No	1 2
13	During the past 7 days, on how many days did Some one in your home smoke when you were present?	Number of days _____ Don't know _____	1 2
14	During the past 7 days, on how many days did someone smoke in closed areas in your work place (in the building, in a work area or a specific office) when you were present?	Number of days _____ Don't know _____	1 2
Alcohol Consumption: The next questions ask about the consumption of alcohol.			
15	Have you ever consumed an alcoholic drink such as beer, wine, spirits, fermented cider or (add other local examples like tela, tej)?	Yes No	1 2
16	Have you consumed an alcoholic drink within the past 12 months?	Yes No	1 2
17	During the past 12 months, how frequently have you had at least one alcoholic drink?	Daily 5-6 days per week 1-4 days per week 1-3 days per month Less than once a month	1 2 3 4 5
18	Have you consumed an alcoholic drink within the past 30 days?	Yes No	1 2
19	During the past 30 days, on how many occasions did you have at least one alcoholic drink?	_____ Number days _____ Don't known	1 2

20	During the past 30 days, when you drank alcohol, on average, how many standard alcoholic drinks did you have during one drinking occasion?	Type of alcohol _____ _____ _____ Don't known _____	Numbers _____ _____ _____ _____	1 2 3 4
21	During the past 30 days, what was the largest number of standard alcoholic drinks you had on a single occasion, counting all types of alcoholic drinks together?	Largest number Don't Know		1 2
22	During each of the past 7 days, how many standard drinks of any alcoholic drink did you have each day?	Monday _____ Tuesday _____ Wednesday _____ Thursday _____ Friday _____ Saturday _____ Sunday _____		1 2 3 4 5 6 7
23	During the past 12 months, what was the largest number of standard alcoholic drinks you had on a single occasion, counting all types of alcoholic drinks together?	Type of alcohol ----- ----- ----- -----	Largest number ----- ----- ----- -----	1 2 3 4
24	During the past 30 days, when you consumed an alcoholic drink, how often was it with meals? Please do not count snacks.	Usually with meals Sometimes with meals Rarely with meals Never with meals		1 2 3 4

PART FOUR: CLINICAL INFORMATION RELATED FACTOR

Next I am going to ask you about the chronic medical illnesses you spent in the last six months (65)

No	Questioners and filters	Yes	No
Q4.1	Were your family members currently diagnosed with any chronic medical illnesses like in the last 6 months?	1	2
Q4.2	Have you ever been diagnosed with chronic medical illnesses in the last 6 months?	1	2
Q4.3	Do you have family member ever diagnosed with chronic medical illnesses in the last 6 months?	1	2
Q4.4	Do you have pervious history of chronic medical illnesses in last six (6) months?	1	2
Q4.5	If yes, to Q 4.4 what was the cause?		
Q4.6	Hypertension?	1	2
Q4.7	Diabetes Mellitus?	1	2
Q4.8	HIV /AIDS?	1	2
Q4.9	Any cancers?	1	2
Q4.10	Asthma?	1	2
Q4.11	Heart disease?	1	2
Q4.12	If any yes answer for Q4.5, what was the reason of the causes in the last 6 months?		
Q4.13	Is it secondary to lack of any kind of social support like practical, emotional, informational and appraisal?	1	2

Q4.14	Is it secondary to Stress full life events like family member died, divorce, and injury in the family member?	1	2
Q4.15	Is it secondary to personals life style activities in relation to substance use like Khat chewing practices , Alcohol drinking , Cigarette smoking, and other substances like Hashish and sedatives use in the last six months?	1	2
Q4.16	If any others, specify _____		
Q4.17	Is it pervious history of hospital admission secondary to chronic medical illnesses in last six (6) months?	1	2
Q4.20	If yes to Q4.17 how long of hospital stay in weeks?		
Q4.21	Less than one week	1	2
Q4.22	Weekly	1	2
Q4.23	2-3 times per month	1	2
Q4.24	Monthly	1	2
Q4.25	Every 2 and 3 month	1	2
Q4.26	1-2 times per year	1	2
Q4.27	If any others,soecify _____		
Q4.28	Do you take any treatment during the interventions cases in the last 6 months?	1	2
Q4.29	If yes to Q4.28, What treatments do you take?	1	2
Q4.30	Is any herbal or traditional healers?	1	2
Q4.31	Health institution?	1	2
Q4.32	Home medication	1	2
Q4.33	If any other, specify _____	1	2

PART FIVE: PSYCHOSOCIAL RELATED FACTORS

The following questions focus on personal life style activities in relation to stress full life events, in relation to personals life time.

No	Questioners and filters	Yes	No
Q2.1	In the last 6 months, did family member suffered by injury like car accidents, homicide, suicide or an assault?	1	2
Q2.2	In the last 6 months did any family member die?	1	2
Q2.3	In the last 6 months did close family, friend or another relative die?	1	2
Q2.4	In the last 6 months have you had a major financial crisis or serious money worries?	1	2
Q2.5	In the last 6 months, do you have been dismissed from job?	1	2
Q2.6	In the last 6 months have you been unemployed or not been able to work?	1	2
Q2.7	What were the sources of causes in the last 6 months?		
	Is it secondary to chronic medical diseases?	1	2
	Is it secondary to personals life style activities in relation to use substance like Khat chewing practices , Alcohol drinking , Cigarette smoking, and other substances like Hashish and sedatives use in the last six months?	1	2
	If, any others, specify _____		

Social Support Questioners (SSQ):-Instructions, This scale is made up of a list of statements each of which may or may not be true about you. For each statement circle "definitely true" if you are sure it is true about you and "probably true" if you think it is true but is not absolutely certain. Similarly, you should circle "definitely false" if you are sure the statement is false and "probably false" if you think it is false but are not absolutely certain. (63).

No.	Questionnaire and filters	Coding	Code
Q1	If I wanted to go on a trip for a day (for example, to the country or mountains), I would have a hard time finding someone to go with me? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Q2	I feel that there is no one I can share my most private worries and fears with? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Q3	If I were sick, I could easily find someone to help me with my daily chores? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Q4	There is someone I can turn to for advice about handling problems with my family? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Q5	If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Q6	When I need suggestions on how to deal with a personal problem, I know someone I can turn to? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Q7	I don't often get invited to do things with others? definitely false probably false probably true definitely true	1 2 3 4	

Q8	If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.)? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Q9	If I wanted to have lunch with someone, I could easily find someone to join me? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Q10	If I was stranded 10 miles from home, there is someone I could call who could come and get me? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Q11	If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Q12	If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me? Definitely false Probably false Probably true Definitely true	1 2 3 4	
Finished time _____			

"There is no development with out health and no health with out mental health"

ANEXXES 2

HADIYI SUUM TIRATO XAMICHA

JIMMA UNVERSITE'ENE MINADAPHI FAYA'OM LOSSA'IN COLLEGA
EPIDEMOLOGEI LOSSAIN BAXANCHA

WORON GIR GICHI GAS QOXO'ONE HADIYI ZON MIADAPH FAYAOM
HEGEGONE YOO MINADAPHI HORRORE JAWA OO JABBI BIKKINA ODIM EKA
EBOO MASHIKAUWA XIGOO LAIMMNA GUDAKO XAMICHUWA

Ihi summi _____ yamamomo. An baxomoki jimm unversiteene laim digree losano losakuya yommake abachi Yilma Markosena miadaph fayaom hegegone yoo horror jaw miadaph xigoo odim eka eboo mashikauwa laimmna gudako xamichuwa maha laboko yitakamdae laimina teim kiin yitakam wosha aaimina hofqax xamicham xaimeena hassamo. ka saarayimik horoor wosha horror jaw miadaph xigoo odim eka eboo mashikauwa laimmna bikina mayamodae laimina sarayakam saaraya. Ku saaraya horror jaw miadaph xigoo odim eka eboo mashikauwa laimmna ernaqash lobakata. Eebikina horror jaw miadaph xigoo odim eka eboo mashikauwa laimmna yoo danam luwa laimina kiin kutakam woshi lobakata awaadooko. Ka Xamicha worqatane kiin sum teim kiin bikina caakisoo luww mahim kitaabamoyo. Odim kiin kutakam wosha hundam iininsee kiineese mul man macesoo beeisa man bee bagana xaimomo. Xamichuwa xaimena xanomok kiine xaimomisina ijaajantakolas xaleete dabacha uwima hasako bei ayyim xaimichinam oo xaimich gatona yimm xansiisooko. Odim ayyamanenem ihaako uulise yim xansiisooko. Ihukaremdu kiin kutakam wosh horror jaw miadaph xigoo odim eka eboo mashikauwa laimmna baxinaa uwakam awaxi axishina lobakata axisamo luwi hinkandae ihukisa laimina lobakata haraimoko. Xaimicha xaimanchina iitamtakaa? _____ Dabachoom ooya ihulas galaxoomo.

Dabachoom ihooyo yohan ihulas galaxoomo awana xaimamoo mine mana egerima xamamo.

Macho layyimm xigo _____ xamako bala _____

Xamicha xamima asheerako ammane _____ xamamo manchi Firmaa _____

Horoor ihaa moanchi/supervizech sum _____ Firmaa _____

LAYOO

Woraxxi Summa _____ kebele Summa _____

Got summa _____ mine xigo _____

BAXANCHI MATOO: MATI MANCHI HUNDAME HALATOME MOO XAMMICHA

Kina laboo dabacha uwee

1. Mati Manchi Hundame Halatome Moo Xammicha

Xigo	Xa'imicha	Dabacha	Layoo
X101	Umur ?	Hincho	1
X102	Mine ayane?	Gilane kebalanene Takarayalaine Mulakim yolase _____	1 2 3 4
X103	Albach?	Goncho Mashara	1 2
X104	Amanato?	Ortodokischo Isilancho Waa amainanacho Kaatolikicho Amanat beane Mulakim yolase cakise _____	1 2 3 4 5 6
X105	Mine yoo abarose xig hinkana?	1 2-4 5-7 Mulakim yolase cakise _____	1 2 3 4
X106	Marcho baxohi?	Abuulaancho miinn amate Dadaraancho/te Adiil baxaancho/te Gilane /NGO baxaancho/te Bal baxo baxaancho/te Mulakim yolase cakise _____	1 2 3 4 5 6 7
X107	Mine isim bikina?	Mine isu/isito be.ane Mine isaako/isitoothane Mine isaa holakothane/mine isitaa fitoothane Miin ani/amalehakoothane/letoothane	1 2 3 4
X108	Shumoo?	Hadiyicho Kembaticho Amhacho Guragekicho Siltekicho Wolaiticho Oromkicho Tigrekiicho Mulakim yolase cakise _____	1 2 3 4 5 6 7 8 9
X109	Mat agana hinkaina dinata (birr) siido?	_____	1
X110	Heech gandisi?	Beeroo Gaxara	1 2

X111	Losain bikina?	Maham losain mine agu/ago beane Matii saddanti affebe (1-8) Honssi tommy lami affebe (9- 12) Diploma, digree lossakone/ane Mulakim yolase_____	1 2 3 4 5
X112	Kini makire ki qari mani hehone?	Oyaa Aee	1 2
X113	Minni anchi yoki qaromma?	Beshomanne Qarommane Mini anchi betoo Mini anchi landichotte Mulakim yolase_____	1 2 3 4 5

BAXXANCHI LAMOO: GAGI WOMOO XAMICHA (GWX)

IJAJOO: kanni woroni yoo xamichuwa kaa illagen 30 balli worronee ayyi laukoo hawissukuyaa heuki jaboo temi hawoo ihena xanokkoo. Xamichi kani ilageni 30 balli woroni kese moane ihulase oyya yitta dabaree. Dabbacha dabatituyaa ayennemi atorarim hasisoyoo. Dammicha dabarimma hegilase laboko yitoo danammi dabacha uwitenna mukkaree (57).

Xigoo	Higuui sorri santi woronee yoo Xa'imicha	Dabacha	Layoo
201	Damussa lakonne?	Oyaa Aee	1 2
202	Huribaxii hassani hoffea lakonee?	Oyaa Aee	1 2
203	Jorrissa dirrita lakkone?	Oyaa Aee	1 2
204	Hoffi luwanemmi qaqisso mugita lakonne?	Oyaa Aee	1 2
205	Angii huxxehone?	Oyaa Aee	1 2
206	Nadadonne, chanakonne temi balonee?	Oyaa Aee	1 2
207	Hurribata satonne danamissa litamonhee?	Oyaa Aee	1 2
208	Daamissa sawimma hogga lakonne?	Oyaa Aee	1 2
209	Lirrancha hogaa lakonee?	Oyaa Aee	1 2
210	Eralani lobboka lata lakonne?	Oyaa Aee	1 2
211	Balinna wossolitenna hawisoo luuwaa ladita lakonne?	Oyaa Aee	1 2

212	Maluwwa qatomma uwitenna hawisso luwwa lakonne?	Oyaa Aee	1 2
213	Balina baisoo luwii yonne?	Oyaa Aee	1 2
214	Yoonti ummurane wossolitena hawisoo luwwa lakonne?	Oyaa Aee	1 2
215	Isito luwwa hundanemi liranča hogga lakonne?	Oyaa Aee	2
216	Mahamii awadi beei manchi ikitossa machessama lakonne?	Oyaa Aee	2
217	Kii gagineemi anni awadomoyoo yitta qodoo uwitaa lakonne?	Oyaa Aee	1 2
218	Hundi ammanemi hongii machessamone?	Oyaa Aee	1 2
219	Goddabone danamommi machesamima hogga lakonne?	Oyaa Aee	1 2
220	Winsoo qaxanemii hogga lakonne?	Oyaa Aee	1 2

BAXXANCHI SASOO: SUSSA LABOO XAMICHUWAA

Kanni woronne woroni yoo xammichuwi xinisokokki mati manchi hehoi hechi dollene sussine yooii shinatooi maha labookoo okkimi chata, harakee agimmine, sigaraa wirissimine odimmi mulikeni sisha awwaximmine yohanee (65).

Xigoo	Xammicha	oyya	Aee
	1. Kanni woronne yooi xammichuwii mati manchi chata qamimi bikina moohane.		
X303	Kani ilageni 12 aganni woronne chata kamella lakonne?		
X304	Oyya, yitilasee hinkana bala annanatone awaxitoto?		
	Balina balinna	1	2
	Santanne	1	2
	Aggananne	1	2
	Mulakim yollasee _____		
	Mashikaomim mahinate awaxitokkoki?		
	1. Baxo eddona temi lacha edonna	1	2
	2. Fayaomma sidimmina.	1	2
	3. Honga temi sibaroo horona.	1	2
	4. Mashikaommim lossanimkemukarate.	1	2
	5. Mashikaomim amanaxi quxinatee.	1	2
	6. Muli beshina kenina misisena	1	2
7. Mani mateyomma henna	1	2	
8. Liranča sidenna.	1	2	
9. Shayixi edanča exumuyi liranča sidanaa	1	2	
10. Masikaomim beshi ibisimminate	1	2	
11. Qarali mashikaintee	1	2	
12. Mulakim yolasee _____			

2. Kanni woronne yooi xammichuwii mati manchi dimbisoo agga agimi bikina moohane.			
X305	Dimbiso aga awaxita lakonne kobilisina areke, tela tej, birra, temi mulikenome?	1	2
X306	Dimbiso aga horeommami awaxita lakobeanine kobilisina areke, tela tej, birra, temi mulikenome?	1	2
X307	Kani ilageni 12 aganni woronne dimbiso aga agaa lakonne?	1	2
X308	Oyya, yitilasee hinkana bala annanatone awaxitoto?		
	Balina balinna	1	2
	Santanne	1	2
	Aggananne	1	2
	Mulakim yollasee _____		
	Mashikaomim mahinate awaxitokkoki?		
	1. Baxo eddona temi lacha edonna	1	2
	2. Fayaomma sidimmina.	1	2
	3. Honga temi sibaroo horona.	1	2
	4. Mashikaommim lossanimkemukarate.	1	2
	5. Mashikaomim amanaxi quxinatee.	1	2
	6. Muli beshina kenina misisena	1	2
	7. Mani mateyomma henna	1	2
	8. Lirancha sidenna.	1	2
	9. Shayixi edancha exumuyi lirancha sidanaa	1	2
	10. Masikaomim beshi ibisimminate	1	2
	11. Qarali mashikaintee	1	2
	12. Mulakim yolasee _____		

3. Kanni woronne yooi xammichuwii mati manchi siggara odim tamiba wirisima temi awaxim bikina moohane.		oyya	Aee
X309	Tamiba wirisitaa lakonne kobilisina siggara, surrata temi ichakamoka temi mulikenome?	1	2
X310	Tamiba wirisitaa lakobeanine kobilisina siggara, surrata temi ichakamoka temi mulikenome?		
X311	Kani ilageni 12 aganni woronne tamiba wirisitaa lakonne?	1	2
X312	Oyya, yitilasee hinkana bala annanatone awaxitoto?		
	Balina balinna	1	2
	Santanne	1	2
	Aggananne	1	2
	Mulakim yollasee _____		
	Mashikaomim mahinate awaxitokkoki?		
	1. Baxo eddona temi lacha edonna	1	2
	2. Fayaomma sidimmina.	1	2
	3. Honga temi sibaroo horona.	1	2

	4. Mashikaommim lossanimkemukarate.	1	2
	5. Mashikaomim amanaxi quxinateee.	1	2
	6. Muli beshina kenina misisena	1	2
	7. Mani mateyomma henna	1	2
	8. Lirancha sidenna.	1	2
	9. Shayixi edancha exumuyi lirancha sidanaa	1	2
	10. Masikaomim beshi ibisimminate	1	2
	11. Qarali mashikaintee	1	2
	12. Mulakim yolasee _____		

4. Kanni woronne yooi xammichuwii mati manchi shisha sabimma awaxim bikina moohane.		Oyya	Aee
X313	Shisha sabA lakonne kobilisina cannabis, ganja and heroin, temi mulikenome?	1	2
X314	Shisha sabimma horeommami awaxita lakobeanine kobilisina areke, tela tej, birra, temi mulikenome?	1	2
X315	Kani ilageni 12 aganni woronne Shisha sabimma awaxitaa lakonne?	1	2
X316	Oyya, yitilasee hinkana bala annanatone awaxitoto?		
	Balina balinna	1	2
	Santanne	1	2
	Aggananne	1	2
	Mulakim yollasee _____		
	Mashikaomim mahinate awaxitokkoki?		
	1. Baxo eddona temi lacha edonna	1	2
	2. Fayaomma sidimmina.	1	2
	3. Honga temi sibaroo horona.	1	2
	4. Mashikaommim lossanimkemukarate.	1	2
	5. Mashikaomim amanaxi quxinateee.	1	2
	6. Muli beshina kenina misisena	1	2
	7. Mani mateyomma henna	1	2
	8. Lirancha sidenna.	1	2
	9. Shayixi edancha exumuyi lirancha sidanaa	1	2
	10. Masikaomim beshi ibisimminate	1	2
	11. Qarali mashikaintee	1	2
	12. Mulakim yolasee _____		

BAXANICHA SORO: FAYAOMMI BIKINA MOHANE XAMMICHUWA

Kani jammara ani xamomoki qoyyaka mana fayaomma hawojja afisso jabbone horori jawisa ebo jabbone yoo snantomma kani illegen heukki 6 agani worrone ananiissenatee (65).

Xigoo	Xamicha	Oyya	Aee
X4.1	Kani ammane mini mani horore jawao jabinne koblishina anzaiten, dipreshine odim somatoofoma yakammi jabinne amadama lakone?	1	2
X4.2	Kani illagene 6 agani worone horore jawao jabinne koblishina anzaiten, dipreshine odim somatoofoma yakammi jabinne ammadamita lakone?	1	2
X4.3	Kani illagene 6 agani worone kinni mini manni horore jawao jabinne koblishina anzaiten, dipreshine odim somatoofoma yakammi jabinne ammadama lakone?	1	2
X4.4	Kani illagen 6 agani woronee qoyyaka mana fayaomma hawojja afisso jabbine amadata lakonne?	1	2
X4.5	Oyya yitlase, X4.5 hinnka jaboo heukoo amadukoki?		
X4.6	Hypertenshina?	1	2
X4.7	Sukali jaboo?	1	2
X4.8	HIV /AIDS yakkami jaboo?	1	2
X4.9	Kanissara yakamane?	1	2
X4.10	Asimma yakamane?	1	2
X4.11	Wodanni jaboo?	1	2
X4.12	Kani illagene 6 agani worone horore jawao jabinne koblishina anzaiten, dipreshine odim somatoofoma yakammi jabbi amadana mashikaomim maha kiukandae lakone?		
X4.13	Qoyyaka mana fayaomma hawojja afisso jabbi kiukane koblishina hypertenshina, sukali jaboo, HIV /AIDS, kanissara, asimma and hwodani jaboo?	1	2
X4.14	Haramanchi beukanni kiatetee koblishina mutinnem, sawitinem odim hawi temi helli amane?	1	2
X4.15	Achananakoo luwi kiakkohanee koblishinna mini mani lehha, hawi affa temi qari mani lehha?	1	2
X4.16	Mati manchi kani illagen 6 agani worrone sussine yoooi shinatooi maha labookoo okkimi chata, harakee agimmine, sigaraa wirissimine odimmi mulikeni sisha awaxim kiukkane?	1	2
X4.17	Mulakim yolase, cakisee _____		
X4.18	Kani ilageni 6 agani worone horore jawao jabinne koblishina anzaiten, dipreshine odim somatoofoma yakammi jabbi hossipitala agga lakkone?		
X4.19	Oyya yitilasee, X5.9 hinikkana koyallate sanitinee?		
X4.20	Mati santi hoffeo amane	1	2
X4.21	Santa	1	2
X4.22	2-3 ammane affebe mati agani worrone	1	2
X4.23	Agganae	1	2
X4.24	2 teim 3 agani worrone	1	2
X4.25	Hinchonne 1-2 affebee	1	2

X4.26	Mulakim yolase, chakisee _____		
X4.27	Kai illageii 6 aggani worrone horore jawao jabinna qarare masita lakonee?	1	2
X4.28	Oyya X6.8, hinkaa qararee heukoo masitokki?	1	2
X4.29	Buyuwinse teim abashi Qarali mini?	1	2
X4.30	Doctoluwi teim narsuwi ijaja?	1	2
X4.31	Mulakim yolase, cakisee _____	1	2

BAXXANICHA ONITOO: MANNI MATEYOMMA HEEIM BIKKINA MOO XAMICHUWA

Kanni woronne woroni yoo xammichuwi xinisokokki mati manchi hehoi hechi dollene chanakisoo luwine shinatama heeim maha laboko yakammane.

Xigoo	Xammicha	Oyya	Aee
X2.1	Kanni illageen 6 aganii worrone minni mannane daffy teim hawojji affa laonne?	1	2
X2.2	Kani ilageni 6 aganni worrone minni mani leha heukkonee?	1	2
X2.3	Kani ilageni 6 aganni worrone qari manni teim beshi leha heukkonee?	1	2
X2.4	Kani ilageni 6 aganni worrone dinat teim birri beea hawissa lakonne?	1	2
X2.5	Kani ilageni 6 aganni worrone baxi horeommami hollaka lakkonee?	1	2
X2.6	Kani ilageni 6 aganni worrone baxo hogga lakkonee?	1	2
X2.7	Oyya yitlase mashikaomim maha heukko aggani worrone?		
X2.8	Kan illagene 6 agani worone horore jawao jabinne koblishina anzaiten, dipreshine odim somatoofoma yakammi jabbi amadona mashikaomim maha kiukandae lakonee?	1	2
X2.9	Qoyyaka mana fayaomma hawojja afisso jabbi kiukane koblishina hypertenishina, sukali jaboo, HIV /AIDS, kanissara, asimma and hwodani jaboo?	1	2
X2.10	Okkimi chata, harakee agimmine, sigaraa wirissimine odimmi mulikeni sisha awwaximminse kiukkane 6 aganni worrone.	1	2
X2.11	Mulakim yolase, cakisee _____		

IJAJOO: kani woroni yooi layooi kina hanqa teim qophano ihenna xanokkoo. Hanqa ihulase horreyomame hanqa yohhano isse, horreyommame hanqa ihubelase hanqa ihena xanokkoo yohanoo isse. Odim, kina horreyomame qophanoo ihulase qophano yohano isse, teim qophano ihena xanokkoo yohanoo isse (63)

Xigoo	Xamicha	Layoo	Sorroba
X1	Gogo kinni maro mana hasa emana hogaa lakonne? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	
X2	Hoggumitane haramo mana hogenna xantone? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	
X3	Jabummitane jabisoo mana gondae sidenna xantone? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	
X4	Mati hawi affutane haramoo mana gundane sidenna xantone? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	
X5	Himoo ihakoo beyoo takemoo yitta kina haramoo mana hogga lakonne? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	
X6	Kessen mati hawi haffutane ehi hawoo tirena aramo mana hogga lakonee? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	
X7	Ati bashili amanee mani baxonna mani edansa lakonne? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	

X8	Ati mati sanitinna muli hula matitane ki mine, heggegoo moo mana hogomo yitta lakonne? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	
X9	Mati manchi bali hurbata itomoo yitta emancho hogga lakonne? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	
X10	Mati mancho 10 milli hegegone mini shikita ulita wesha lasage machesima hogga lakonne? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	
X11	Minni manna mati hawi affa kese sogokoo yitoo mana hogga lakonne? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	
X12	Ati harachi mine fitituyaa haramokoo yitoo manna hogaa lakone? Horreyomame qophanoo Qophano ihena xanokkoo Hanqa ihena xanokkoo Horreyommame hanqa	1 2 3 4	

Xammich bedu ammane_____

DECLARATION

I, the undersigned, declare that this research thesis paper is my original work and agrees to accept responsibility for the scientific ethical and technical conduct of the research project and provision of required progress reports as per terms and college of public health and medical sciences (funding organization) in effect at the time of grant is forwarded as the result of this application.

Name: Yilma Markos

Signature: _____ date _____

Place of submission: Jimma University

Date of Submission: _____

This research thesis work has been submitted for examination with my approval as the university advisor.

Advisor name	Signature	Date
1 st advisor Dr Lelisa Sena	_____	_____
2 nd advisors Mrs Chaltu fikru	_____	_____
Name of Internal examiner	Signature	Date
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