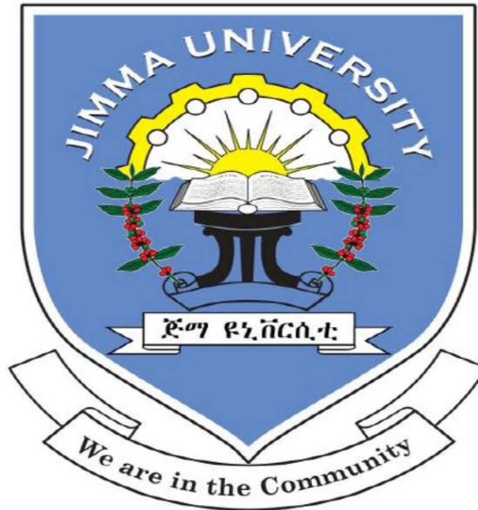
SUICIDAL BEHAVIOURS AND ASSOCIATED FACTORS AMONG PEOPLE WITH MENTAL ILLNESS AT JIMMA UNIVERSITY TEACHING HOSPITAL PSYCHIATRY CLINIC, SOUTH WEST ETHIOPIA.



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SUICIDAL BEHAVIOURS AMONG PEOPLE WITH MENTAL ILLNESS AT JIMMA UNIVERSITY TEACHING HOSPITAL PSYCHIATRY CLINIC, SOUTH WEST ETHIOPIA.

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ABSTRACT

Background: Suicidal behavior is a major public health problem which is more common among people with mental illness. However, the prevalence and risk factors for suicide and suicidal behaviors are not well studied among people with mental illness, especially in low and middle income countries.

Objective: To assess the prevalence and predictors of suicidal behaviors among people with mental illness at Jimma University Teaching Hospital psychiatry clinic, south west Ethiopia.

Methods: A facility based cross-sectional study design with consecutive sampling technique was employed from October 26 /2014 to November 24 /2014. Data for suicidal behaviors were assessed by using Suicidal Behavior Questionnaire-Revised (SBQ-R). Substance related factors were assessed by using cutdown annoyed guilt and eye opener (CAGE) and Fagerstrom test to screen for alcohol use disorder and nicotine dependence respectively. The data was analyzed by using statistical package for social sciences (SPSS) version 20. The results were described with frequency table, graph, mean and standard deviation. Bivariate analysis was used to get candidate variables for multivariate logistic regression analysis. Variables with P-value of < 0.05 at multivariate analysis were considered independent predictors of suicidal behaviors.

Results: The response rate was 100%. The prevalence of suicidal behavior was 28.6%. The lifetime prevalence of suicidal ideation, intent and attempt were 21.8%, 16.9% and 16.1% respectively. The most used method for suicide attempt was hanging. Age group of 18-27 (Adjusted OR=4.53, 95% CI=1.37,14.93), Gurage ethnic group (Adjusted OR=5.28, 95% CI=1.47,18.97), major depressive disorders (Adjusted OR=4.48, 95% CI=1.95,10.26), having family history of mental illness (Adjusted OR=2.25, 95% CI=1.11,4.57), alcohol use disorders (Adjusted OR=2.29, 95% CI=1.08,4.85) and nicotine dependence (Adjusted OR=2.21, 95% CI=1.08,4.53) were the independent predictors of suicidal behaviors.

Conclusion: In this study prevalence of suicidal behaviors were high. The most used methods for suicide attempt was hanging. Co morbidity of nicotine dependence and alcohol use disorders among people with mental illness, having family history of mental illness, Major depressive disorder and being young age were the strong risk factors for suicidal behaviors.

Recommendation: a well organized and structured screening and management for suicide and risks for suicide should be strengthened for people with mental illness.

Key words: suicidal behaviors, people with mental illness, mental illness.

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TABLE OF CONTENTS

ABSTRACT I
ACKNOWLEDGEMENT II
TABLE OF CONTENTS III
LIST OF TABLES V
LIST OF FIGURES VI
LIST OF ABBREVIATIONS AND ACRONYMS VII
CHAPTER ONE: INTRODUCTION 1
1.1. Background 1
1.2. Statement of the Problem 2
1.3. Significance of the Study 4
CHAPTER TWO: LITERATURE REVIEW 5
2.1. Overview 5
2.2. Magnitude of Suicidal Behaviors 5
2.3. Socio demographic related factors for suicidal behaviors 7
2.4. Mental illness related risks factors for suicide behavior 8
2.5. Substance related factors for suicidal behaviors 9
2.6. Methods and places of suicide attempts 10
2.7. Conceptual Framework 11
CHAPTER THREE: OBJECTIVE 12
3.1. General Objective 12
3.2. Specific Objectives 12
CHAPTER FOUR: METHODS AND MATERIALS 13
4.1. Study area and period 13
4.2. Study design 13
4.3. Population 13
4.3.1. Source population 13
4.3.2. Study population 13
4.4. Inclusion and exclusion criteria 13
4.4.1. Inclusion criteria 13
4.4.2. Exclusion criteria 14
4.5. Sample size determination and sampling procedures 14
4.5.1. Sample size determination 14
4.5.2. Sampling technique and procedures 14

4.6. Study variables 15
4.6.1. Dependent variables 15
4.6.2. Independent variables 15
4.7. Data collection procedures and instruments 16
4.7.1. Instruments 16
4.7.2. Data collection method 17
4.7.3. Data quality assurance 17
4.7.4. Data processing and analysis 17
4.8. Ethical considerations 18
4.9. Dissemination plan 18
4.10. Operational definitions 18
CHAPTER FIVE: RESULTS 20
5.1. Socio-demographic and economic characteristics 20
5.2. Characteristics of mental illness and social support 22
5.3. Characteristics of substance use conditions 23
5.4. Magnitudes of Suicidal Behaviors 23
5.5. Places and methods of suicide attempt 25
5.6. Factors associated with suicidal behaviors in bivariate analysis 26
5.6.1. Socio-demographic and economic factors of suicidal behaviors 26
5.6.2. Mental health and social support related factors 28
5.6.3. Substance related factors 29
5.7. Independent Predictors of suicidal behaviors 30
CHAPTER SIX: DISCUSSION 33
CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS 37
7.1. CONCLUSION 37
7.2. RECOMMENDATIONS 37
REFERENCES 38
ANNEX I: DATA COLLECTION INSTRUMENTS 43
Part I: Questionnaire in English version 43
Part II: Questionnaires in Amharic Version 50
Annex III Questionnaire in Afan Oromo version 57

LIST OF TABLES

Table 1: Socio-demographic characteristics of people with mental illness attending treatment at JUTH psychiatry clinic, south west Ethiopia 2014 (n=385). 21

Table 2: Mental health related characteristics of people with mental illness attending treatment at JUTH psychiatry clinic, south west Ethiopia 2014 (n=385). 22

Table 3: Magnitude of suicidal behaviors among people with mental illness attending treatment at JUTH psychiatry clinic, south west Ethiopia 2014 (number=385). 24

Table 4: details of patients who attempted suicide among people with mental illness who attending treatment at JUTH psychiatry clinic, 2014 (numbers=62). 25

Table 5: Binary logistic regression analysis of socio-demographic factors of suicidal behavior among people with mental illness attending treatment at JUTH psychiatry clinic south west Ethiopia, 2014 (n=110). 27

Table 6: Binary logistic regression analysis of social support and mental health factors with suicidal behavior among people with mental illness attending treatment at JUTH psychiatry clinic south west Ethiopia, 2014 (n=110). 28

Table 7: Binary logistic regression analysis of substance use disorders with suicidal behavior among people with mental illness attending treatment at JUTH psychiatry clinic south west Ethiopia, 2014 (n=110). 29

Table 8: Multiple logistic regression analysis of factors associated with suicidal behaviors among people with mental illness attending treatment at JUTH psychiatry clinic, 2014. 32

LIST OF FIGURES

Figure 1: Conceptual frame work showing the relations between dependent and independent variables which is provided by the principal investigator after reviewing scientific literatures. ..11

Figure 2: Lifetime prevalence of suicidal behaviors among people with mental illness attending treatment at JUTH psychiatry clinic south west Ethiopia 2014. 24

Figure 3: Methods used for suicide attempt among people living with mental illness attending treatment at JUTH psychiatry clinic south west Ethiopia 2014. 26

LIST OF ABBREVIATIONS AND ACRONYMS

AOR: Adjusted Odd Ratio

AUDs: Alcohol Use Disorders

CAGE: Cut down, Annoyed, Guilt feeling and Eye opener

CDC: Center for Disease Control and prevention

CI: Confidence Interval

CIDI- Composite International Diagnostic Interview

COR: Crude Odd Ratio

DSM-IV- Fourth Edition of Diagnostic and Statistical Manual

JUTH- Jimma University Teaching Hospital

LMIC- Low and Middle Income Countries

MDD- Major Depressive Disorder

MhGAP: Mental Health Gap Action Program

PTSD- Post Traumatic Stress Disorder

SBQ-R-Suicidal Behavior Questionnaire-Revised

SPSS- Statistical Package for Social Science

UK: United Kingdom

US- United State

USA- United State of America

WHO- World Health Organization

CHAPTER ONE: INTRODUCTION

1.1. Background

Suicidal behaviors are thoughts or tendencies that put a person at risk for committing suicide. Suicide is an act of intentionally terminating one's own life. Suicidal behaviors are classified into three categories; suicidal ideation, suicide plan or intent and suicide attempts. Suicide ideation refers to thoughts of engaging in behavior intended to end one's life; suicide plan refers to the formulation of a specific method through which one intends to die and suicide attempt refers to engagement in potentially self-injurious behavior in which there is at least some intent to die and nonfatal outcome. Suicidal ideation and behavior has been the subject of considerable international attention and debate. They are common problems and closely interrelated (1- 3).

Most importantly, accurate diagnosis of psychiatric disorders and their successful treatment can significantly reduce suicide rates (4). Many developed countries had implemented various suicide prevention strategies and many researches are being done. As a prevention strategy to reduce suicide globally, WHO have been celebrating a world suicide prevention day on September 10 since 2003 (5). In 2008, WHO also developed the mental health Gap Action Program (mhGAP) calling for an urgent scaling up of services for mental, neurological, and substance use disorders, especially in the developing world (6). Ethiopia also commits to expanding mental health services that are "decentralized and integrated at the primary health care level" (National mental health strategy 2012/2013-2015/16) (7), but few researches have been done about suicide and suicidal behaviors.

1.2. Statement of the Problem

Data from World Health Organization (2012) indicate that approximately one million people worldwide die by suicide each year. This corresponds to one death every 40 seconds by suicide. Suicide attempts and suicidal ideation are far more common. The number of suicide attempts raises up to 20 times the number of deaths by suicide. According to WHO estimates for the year 2020, approximately 1.53 million people will die by suicide and ten to 20 times more people will attempt suicide worldwide. These estimates represent on average one death every 20 seconds and one attempt every one to two seconds (3, 8, and 9). According to World Health Organization (WHO) and the Latest Burden of Disease Estimation, suicide is a major public health problem in high-income countries and is an emerging problem in low and middle-income countries where poor psychiatric services are available (3, 10). Suicide accounts for 1.4% of total mortality and 15% of injury mortality. The global suicide rate as a whole is estimated to be 11.6 per 100,000 inhabitants per year (11) and in Ethiopia this figure is 7.7 per 100,000 per year (12). Suicide rates have increased by 60% over the last 50 years, and the increase has been particularly marked in developing countries (8). As a group people with a mental illness face statistically higher risk of suicide. It is generally accepted that 10% of people with mental illness commit suicide during their life time and approximately 90 percent of suicide cases meet criteria for psychiatric disorders, particularly major depression, substance use disorders, cluster B personality disorders and schizophrenia (13, 14).

In 2010, suicide was the tenth leading cause of death in the United States. It was the third cause of death among individuals age 15–24 years old, the second among persons aged 25-34 years, the fourth among person aged 35-54 years and the eight among person 55-64 years which accounts for a total of 38,364 deaths/year (15). Suicidal behaviors are a major public health problem and it remains one of the leading causes of death in the western world. However, the prevalence and risk factors for suicide, suicidal ideation, plans and attempts are not well known, especially in low and middle income countries (16). In high income countries the presence of a mood disorder is the strongest predictor of suicidal ideation, plan and attempt. However, in low and middle income countries the presence of an impulse control disorder is a stronger predictor than mood disorder. The presence of mental disorders in general, and co-morbidity in particular, are consistently strong predictors of suicidal behaviors cross-nationally (16).

Suicide is a multi-determined phenomenon that occurs against a background of complex interacting biological, social, psychological and environmental risk and protective factors. Studies have shown that social isolation can increase the risk of suicide and, conversely, that having strong human bonds can be protective against it. Despite the complexity of this phenomenon, suicide can be prevented. Suicide is a huge health problem causing almost half of all violent deaths. It is not only loss of life, but the mental, physical and emotional stress imposed on family members and friends, as well as economic costs in billions of dollars each year. Other costs are to the public resources, as people who attempt suicide often require help from health care and psychiatric institutes (3, 8).

Children and adolescents who die from suicide leave behind bereaved survivors. Bereaved family members run a risk for developing complicated grief, long-term dysfunction and suicidal ideation. Parents of suicide victims have feelings of guilt because of their thoughts of inadequate parenting and at risk of suicide. Peers and friends of suicide victims are also affected negatively. They have an increased risk for post-traumatic stress disorder, major depressive disorder, grief reactions and suicidal ideations, plans and suicide attempts (4). There are notable differences in the type of disorder most strongly predictive of suicidal behaviors. Yet, basic data on the prevalence and risk factors for suicidal behaviors are unavailable in many countries around the world, particularly in less developed countries like Ethiopia (16). Despite the public and health system costs of suicide and suicidal behaviors, there are a paucity of data about suicidal behaviors among people with mental illness in our country especially in Jimma university teaching hospital psychiatry clinic.

1.3. Significance of the Study

Inadequate assessment of people with mental illness for suicide risks and insufficient access to effective treatments are major contributing factors for suicide. Most suicidal and suicide attempted patients had a strong tendency to visit the health institution few days or weeks/months prior to the suicide while some others also develop suicidal behavior after they visited the health institution and start medications.

Specifying the risk factors of suicide or suicide attempt is one of the biggest clinical challenges for mental health providers. So knowing the magnitude and severity of the problem as well as the major predictors for suicidal behaviors will give insight for health professionals to emphasis, how to identify and handle high risk patients. This study will also contribute to design short and long term suicide prevention strategy at smaller as well as larger scale in the country for people with mental illness. The prevalence and risk factors of suicidal behaviors are not necessarily the same from one community to another. The condition is not well studied among people with mental illness in developing countries like Ethiopia particularly in Jimma South West Ethiopia. So this study will be used as a base line finding for policy makers, health planners and managers to improve the service as well as other researchers to study in this area.

CHAPTER TWO: LITERATURE REVIEW

2.1. Overview

In this literature review various related articles were searched and reviewed. So, according to the literatures show that the prevalence of suicidal ideation, plan and attempts among people with mental illness were ranged 14-65%, 61-64% and 19-70.3% respectively in some studies. In community survey the prevalence of suicidal ideations, plans and attempts also range 2.7%-12.1%, 3.1%-4% and 0.9-4.1% respectively. The most common predictors are mental illness, substance use and co-morbidity disorders. Males complete suicide more than females where as females suicide attempt more than males. Being young age is high risk for suicide.

2.2. Magnitude of Suicidal Behaviors

People with a mental illness and/or substance-related disorder, those who experience stressful life events, those with chronic pain and those who experience emotional distress are at higher risk of suicide (17). Even though, mental disorders are among the strongest predictors of suicide; little is known about which disorders are uniquely predictive of suicidal behavior, the extent to which disorders predict suicide attempts beyond their association with suicidal thoughts and whether these associations are similar across developed and developing countries (18). Substance use is the most important co-morbidity in the increase of suicide risk in adults and adolescents (4). The existence of a depressive disorder i.e. major depression, dysthymia or adjustment disorder along with other mental disorders or a physical disease like infectious, cardiovascular diseases, neurological disorders, diabetes mellitus or cancer is a risk for suicidal behaviors (19).
From cross-national study done (2008) in seven developing and ten developed countries; the lifetime prevalence of suicidal ideation, plans and attempts were 9.2%, 3.1%, and 2.7% respectively. Risk of suicide plans and attempts was also highest within the first year of ideation and when suicidal ideation had an earlier age of onset. Remarkably, 60% of the transitions from ideation to attempt as well as from ideation to plan and plan to attempt occur within the first year of onset of ideation and this result is consistent across all 17 countries (16).

According to a study conducted in Turkey (2006) about suicidal ideation from 120 schizophrenia patients, 31.66% had suicidal ideation and 18% had suicide attempt in the studied group. Fifty four percent of the suicide attempters had applied for a psychiatric examination at most one

month before the attempt suicide. About 77.3% of them had taken psychiatric medicine before the attempt. Of the people attempting to commit suicide, 63.6% carried out the attempt 3 years after the start of the disease (19). Most suicidal adolescents (80%) receive some form of mental health treatment. In most cases (55%), treatment starts prior to onset of suicidal behaviors but fails to prevent these behaviors from occurring (20). A study conducted in Finland in (2005) about suicidal ideation and attempt in 191 bipolar I and II disorders patients, 61% had suicidal ideation (i.e. 40.3% suicide ideation no attempt and 20.4% suicide ideation who attempted suicide) in the current episode with the lifetime, 80% suicidal behavior and 51% suicide attempts. The prevalence of suicidal behavior among bipolar I and bipolar II is similar. Around 66.7% of suicide attempt occurred during depressive episode (21). In clinical samples between 14-59% of the patients have suicide ideation and 25-56% present at least one suicide attempts (22).

WHO world mental health survey (2010) of twelve months prevalence from 10 developed and 11 developing countries suicidal behavior assessed occurs at a slightly higher rate in developing than in developed countries. Overall, roughly one third of ideators develop a suicide plan, and this proportion is significantly higher in developing than developed countries (34.1% vs. 28.9 %,). Suicidal ideators make a suicide attempt also higher in developing than developed countries (20.2% vs. 15.1%). Developing countries also have a higher prevalence of attempts among ideators with a suicide plan (41.8% vs. 32.6%). Respondent 12 month DSM-IV disorders were strong predictors of 12 month suicide ideation in both developed and developing countries (23).

Results from the National Co-morbidity Survey Replication conducted (2001-2003) from US adults (>=18 years of age); approximately two-thirds (66.0%) of people who have seriously considered killing themselves report having a prior DSM-IV/CIDI disorder. History of mental disorders is higher among respondents who go on to make a suicide plan (77.5%), to make a suicide attempt (79.6%) and make a planned attempt (83.4%) compared to an unplanned attempt (74.1%) (24). Findings from the 2007 National Survey of Mental Health and Wellbeing among Australian adults, suicidality among those with affective disorders, 16.8% had experienced suicidal ideation, 6.0% had made a suicide plan, and 4.3% had made a suicide attempt, with substance use disorders the prevalence of ideation, plans and attempts was 10.8%, 3.5% and

3.1% and with anxiety disorders the equivalent prevalence figures were 8.9%, 2.4% and 2.1%, respectively (25).

A study conducted to determine lifetime suicidal behavior among adolescents in US (2013), prevalence of suicide ideation, plans, and attempts are 12.1%, 4.0%, and 4.1%, respectively. The vast majority of adolescents with a lifetime history of suicide ideation (89.3%) and attempts (96.1%) meet lifetime criteria for at least 1 of the 15 *DSM-IV*/CIDI disorders (20). Result from cross sectional South African stress & health survey conducted in (2014), the lifetime prevalence rates of suicidal ideation, suicide plans and suicide attempts were 9.1%, 3.8% and 2.9% respectively (27).

A cross sectional study at psychiatric clinic outpatients (2006), in Gondar University North West Ethiopia from 474 individuals the prevalence of Suicidal ideation was 64.8% and 19.2% attempted suicide. Suicidal attempt mainly due to their current mental illness was reported in 61.5% patients. Family history of mental illness was found in 19.4% and family history of suicide was found in 3% of patients (28). A community based cross sectional study about suicidal ideation and attempts among 10,203 adults in Addis Ababa, Ethiopia the prevalence of current suicidal ideation was 2.7% and life time suicidal attempts was 0.9% (29). In a cross-sectional survey, in 1999 from 10,468 adults of a rural and semi-urban community in Butajira Ethiopia were interviewed to determine lifetime suicide attempts and found 3.2% (n = 332) of the study population (12, 30).

2.3. Socio demographic related factors for suicidal behaviors

According to WHO (2009) suicide rates report, countries with the highest rates of suicide are Lithuania, Belarus and Russia. Reflecting population size, countries with high numbers of suicides include China, India, Russia, the United States and Japan (31). Suicidal ideation from married and divorce/separate/widowed is 1.1 vs5.6%, unemployed and employed is 5.1%vs1.6%, and male to female is 1.5-2.4%vs1.4-5.1% (18). Consistent cross-national risk factors included being female, younger, less educated, unmarried and having a mental disorder (16, 32).

A public health reviews (2012) about suicide and suicide behavior showed that completed suicide is more prevalent among men, whereas nonfatal suicidal behaviors are more prevalent

among women and persons who are young, unmarried, or have a psychiatric disorder. Adults had a lower lifetime prevalence of suicidal behavior than adolescents (3). Men of all ages commit suicide 2.5 to 4 times more frequently than do women, whereas women attempt suicide 2 to 3 times more often than do men (33). A study in South Africa 2014, compared to those with no parental disorders, respondents reporting one parental disorder or two or more parental disorders had strong association with suicidal ideation & attempts (27). A study conducted in Ethiopia the life time suicidal attempt higher in women 23.6% vs.18.2 % (34) and 63% vs. 37% (30), but it is1.3/1 in study conducted adult psychiatry outpatients (28).

2.4. Mental illness related risks factors for suicide behavior

Suicidal ideation among psychiatric patients with major depressive disorder (MDD) is markedly prevalent and it appears to be a precondition for suicide attempts (13). Around 30% to 60% of suicides have been preceded by an attempt, and 10% to 14% of those who attempt suicide eventually kill themselves about 100 times higher than in the general population (33). A study conducted in USA in 1993 about the prevalence of suicidal behaviors in a large general psychiatric outpatient clinic whose patients represented a full spectrum of psychiatric illness, 55% of the patients had a history of suicidal ideation, and 25% reported at least one previous suicide attempts. Approximately half of suicide attempts reported multiple attempts. The rates of suicidal ideation among patients with mood disorders (major depression, dysthymia, and bipolar disorder), adjustment disorders, and alcohol/substance abuse were significantly greater than that of the patients with generalized anxiety disorder (35).

A study conducted in Turkey (2009) about suicidal ideation in patients with schizophrenia; no difference in terms of suicidal ideation was seen between the patients hospitalized in the acute period and others treated as outpatients in the stable period. A history of suicide attempts was significantly more frequent in the group having suicidal ideation (36). In study conducted in Northern Ireland (2014) proportions of people with any mood, anxiety or substance are significantly associated to suicidal ideation, plan and attempt (37). A national survey was conducted in South Africa (2011) among 4185 adults about the lifetime mental disorders and suicidal behavior; from the total sample those who having a prior lifetime DSM-IV disorder, 61%, 64% and 70.3% reported suicidal ideation, plan and attempts respectively. The mental disorders major depression, social phobia, panic disorder, and PTSD are significantly associated

with suicide attempts. PTSD was the strongest predictor of suicidal ideation and attempts (38). Diagnosis of depressive disorders, schizophrenia and dementia or delirium accounts 80%, 10% and 5% of suicide or suicide attempts respectively. Diagnoses of substance abuse and antisocial personality disorder occurred most often among suicides in persons less than 30 years of age. Stressors associated with suicide in those under 30 were separation, rejection, unemployment, and legal troubles. Illness stressors most often occurred among suicide victims over 30 (39).

Testing a Model of Suicidality conducted from 263 community adolescents in Portugal 2014, and reported that depression was direct predictor of suicidality. The prevalence of suicidal behaviors was 25.1%. The life time prevalence of suicidal ideation, intent and suicide attempt was 30.8%, 3.8% and 2.3% respectively (40). A Community surveys in New York (2005) suggest that lifetime prevalence of suicide attempts in major depressive episode is approximately 16% and 14.9 times more likely in patients with PTSD. Some, but not all studies of suicidal behavior in subjects with co-morbid PTSD and major depressive episode found have increased level of suicidal behaviors (41). A 10 year follow up a population based cohort study conducted in Butajira, Ethiopia; about suicide and suicide attempts among (n=919) people with severe mental disorders the cumulative risk of suicide attempts was 26.3% for major depression, 23.8% for bipolar I disorders and 13.1% for schizophrenia. The ratio of suicide attempters to completers was 10.3:1 (34).

2.5. Substance related factors for suicidal behaviors

A prospective study had done among 75 depressed inpatients in Malaysian, suicidal ideation was present in 75% of subjects for which, current and previous alcohol abuse or dependence, current poly-substance abuse or disorder and hopelessness were significantly associated with suicidal ideation (42). Proportions of suicidal ideation, plan and attempts for people with substance use disorder the rate were 23.4%, 7.9% and 9.3% respectively (36). In retrospective study done in Finland (2010) from 264 persons with a lifetime history of any primary or substance-induced psychotic disorders, the lifetime rate of suicide attempt was between 30% and 49% while the rate of suicide attempts was higher among persons with substance-induced psychotic disorders (48.8%) than in persons with other psychotic disorders (41.8%) (43). Alcoholism and other drug

use disorders contribute 3 to 43% of late-life suicides, are also less common than in suicides at earlier points in the life course (44).

A cross-sectional, nationwide cohort of substance use disorder patients in USA California (2006) suicide attempt in the past 30 days; for patients who drank alcohol to intoxication compared no alcohol intoxication was (30% vs. 20%). Where as Cocaine use compared with no cocaine use was (35% vs. 16%) (45). More self-injurers reported being current tobacco smokers 40.6%, compared with non-self-injurers (17.4%). Self-injurers were more likely to have used prescription drugs, stimulants, opioids and hallucinogens (25). A study conducted in Iran about association between cigarette smoking and suicide among 45 of adolescents admitted to a psychiatric hospital, risk for suicide attempts in those who smoked was four times higher than for those who did not. In community samples, regular smoking is associated with suicide attempts (46).

2.6. Methods and places of suicide attempts

The most commonly used method in suicide attempts are drug overdose in (53-59.1%), jumping off a high place or jumping in front of a running car in (17- 27.3%), and using sharp and perforating tools in (13.6-17%) in high income countries (19, 23). Hanging was used by 45.1% of patients and poison was used by 19.8% of patients (23). Hanging and poisons were the most frequent method used by both attempters and completers groups (71.5%) in Ethiopia (28, 34). Hanging was the preferred method for men and poisoning for women (29).The involvement of family members aborted the attempted suicide in 81.3% patients and 69.2% of suicide attempts occurred at home. (28).

2.7. Conceptual Framework

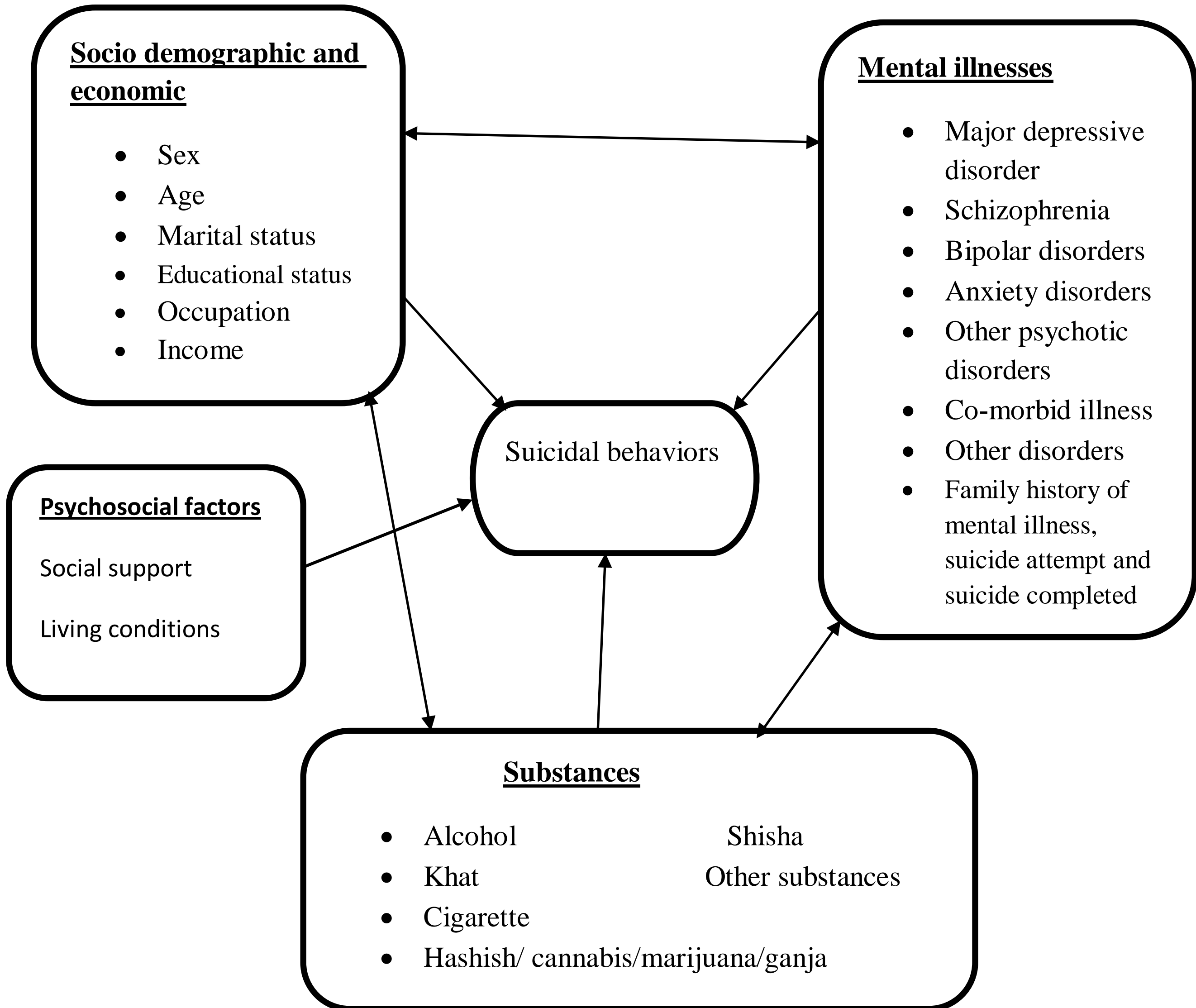

Figure 1: Conceptual frame work showing the relations between dependent and independent variables which is provided by the principal investigator after reviewing scientific literatures.

CHAPTER THREE: OBJECTIVE

3.1. General Objective

- To assess the prevalence, means and predictors of suicidal behaviors among people with mental illness attending treatment at JUTH psychiatry clinic from October 26 to November 24/ 2014.

3.2. Specific Objectives

- ✓ To determine the prevalence of suicidal behaviors
- ✓ To identify the means of suicide attempt
- ✓ To identify the predictors of suicidal behaviors

CHAPTER FOUR: METHODS AND MATERIALS

4.1. Study area and period

Jimma University teaching hospital (JUTH) is found in Jimma town, Oromia regional state. It is 352km south west of Addis Ababa, the capital city of Ethiopia located at an altitude of 1500-2700 meter above sea level. JUTH is one of the oldest governmental hospitals, which was established in 1937 during Italian occupation for the service of their soldiers. After the withdrawal of the colonial conquerors, it has been running as public hospital under the Ministry of Health by different names at different times. Currently become “Jimma University teaching hospital” under federal ministry of education. The hospital currently provides specialized services by its 9 medical and other clinical and diagnostic departments for inpatient and outpatient services for around 6 million people. The psychiatry clinic was established in 1988 next to Amanuel mental health specialized hospital in the country. Currently there are about 5405 follow up outpatients on average around 60 patients visit daily and officially has 26 beds for inpatient services (47). The study was conducted in Jimma university teaching hospital (JUTH) psychiatry clinic, south west Ethiopia from October 26 to November 24/2014.

4.2. Study design

Facility based Cross-sectional study design was employed.

4.3. Population

4.3.1. Source population

All people with mental illness attending treatment at JUTH psychiatry clinic were considered as a source population.

4.3.2. Study population

All sampled people with mental illness attending treatment at JUTH psychiatry clinic were considered as a study population.

4.4. Inclusion and exclusion criteria

4.4.1. Inclusion criteria

Adult psychiatry outpatients’ ≥18 years of age who were attending treatment at JUTH psychiatry clinic during data collection period.

4.4.2. Exclusion criteria

Severely ill and those having cognitive, communicating and hearing problems were excluded.

4.5. Sample size determination and sampling procedures

4.5.1. Sample size determination

The sample size was determined by assuming the prevalence of suicidal ideation and attempt among psychiatry outpatients was 64.8% and 19.2% respectively at a study done in University of Gondar specialized hospital, North West Ethiopia (28) with 5% marginal of error, 95% confidence level of certainty and alpha 0.05. Based on this the actual sample size was determined by taking 64.8% for large sample size using single population proportion formula as showed below.

The formula for calculating the sample size (n) was:

$$n = \frac{(Z)^2 pq}{d^2}$$

Where:

n = Sample

z = standard value 1.96

p =assumed suicidal behaviors prevalence rate among outpatients 64.8%

d = precision (marginal error) = 0.05

q=1-p **Therefore** $n = \frac{(1.96)^2 x 0.65 x .35}{(0.05)^2} = 349.6 = \underline{350}$

New patients who come were included so correction formula was not necessary because the total population (N) was unpredictable.

Adding 10% for non-response rate

Therefore the total sample size was 350+35=<u>385</u>

4.5.2. Sampling technique and procedures

All patients coming to JUTH psychiatry clinic during data collection period were included in the study by using consecutive sampling technique until the required sample size was achieved.

4.6. Study variables

4.6.1. Dependent variables

- ✓ Status of suicidal behaviors

4.6.2. Independent variables

Socio demographic and economic related variables

Sex

Age

Marital status

Religion

Ethnicity

Income

Educational status

Employment status

Psychosocial related variables

Social support

Living condition

Mental illness related variables

Major depressive disorder

Schizophrenia

Other psychotic disorders

Bipolar disorders

Anxiety disorders

Other psychiatric disorders

Duration of illness

Family history of mental illness, suicide attempt and suicide completed

Substance related variables

Alcohol

Khat

Cigarette

Cannabis /hashish/marijuana/ganga

Shisha

other substances

4.7. Data collection procedures and instruments

4.7.1. Instruments

A structured questionnaire was developed in English language and translated into Amharic and Afan Oromo and back to English by language professions who are native speakers. The questionnaire were adopted from different literatures and had six sections; (i) socio demography, (ii) Mental health related, (iii) Means of suicidal attempts, (iv) substance related, (v) Questions related to suicidal behaviors and (vi) social support. For alcohol use disorders CAGE was used which had scored of 0-4 and cutoff point ≥2 with sensitivity 0.71 and specificity 0.90 (48) and for nicotine dependence Fagerstrom Test was used which had four yes/no items scored no (0)/ yes (1) and two multiple choose items scored 0 to 3 total scored of 0-10 and cutoff point ≥5 with sensitivity and specificity 0.75 and 0.80 respectively (49). The Oslo 3-items social support scale was used to measure the strength of social support. The scores range from 3-14. This scale has been used in several studies, confirming the feasibility and predictive validity with respect to psychological distress. A score ranging between 3 and 8 is classified as poor support, a score between 9 and 11 as moderate support, and a score between 12 and 14 as strong support (50). The Suicidal Behaviors Questionnaire revised (SBQ-R) is a self-report measure of suicidal behaviors. This shortened version of the SBQ consists of four questions and used a Likert type scale to assess suicidal behavior history, current suicide status and self-appraisal and expectancies about the future likelihood of engaging in suicidal behavior. Specific items include: "Have you ever thought about or attempted to kill yourself?" (rated 1-4); Responses;(1) non suicidal subgroup=1 point, (2) suicide risk ideation group=2 points, (3) 3a and 3b suicide plan subgroup=3 points, (4) 4a and 4b suicide attempt subgroup=4 points.

"How often have you thought about killing yourself in the past year?" (rated 1-5); response (1) Never=1 point, (2) rarely (1 time) =2 points, (3) sometime (2 times) =3 points, (4) often (3-4 times) =4 points and (5) very often (5 or more times) =5 points.

"Have you ever told someone that you were going to commit suicide, or that you might do it?" (rated 1-3); Response never=1 point, response 2a and 2b=2 points and response 3a and 3b=3 points

"How likely is it that you will attempt suicide some day?" (rated 0-6). Response (1) Never=0 point, (2) no chance at all=1 point, (3) rather unlikely=2 points, (4) unlikely=3 points, (5) likely=4 points, (6) ratherlikely=5 points and (7) very likely=6 points. A broad range of information is obtained in a very brief administration and has the sensitivity 80%, specificity 91% with a score of 3-18 and cutoff point ≥8 for adult clinical population. The SBQ-R takes less than 5 minutes to complete (51). The other questionnaires are developed by the investigator from different literatures.

4.7.2. Data collection method

The data was collected by interviewing all psychiatric outpatients attending treatment in JUTH psychiatric clinic by five BSC psychiatry nurses. One BSC general nurse was supervisor and the principal investigator also participate in the supervision. For those data collectors and the supervisor one day training was given. During the training the objective of the study was discussed. The data collection methods, tools and how to handle ethical issues were discussed with the data collectors. The structured questionnaire was also discussed in detail on going through each question with clarification for doubt. The duty of the supervisor was thoroughly explained. The patients' diagnoses were taken from the document records.

4.7.3. Data quality assurance

Pre-test was conducted (5% of the sample size) before the main study to identify potential problems in data collection tools and amendment of the questionnaire was done and the questionnaires used in the pre-test was not included in the analysis as part of the main study. Regular supervision, control as well as support data collectors by the supervisor and principal investigator was made daily and each completed questionnaire was checked and the necessary feedback was offered to interviewers the following morning. The collected data was properly reviewed and checked for completeness and consistency by the supervisor and principal investigator daily. Incomplete and unclear questionnaires were returned to the data collectors to get it corrected. The collected data was coded, edited, entered into Epidata version 3.1 in order to minimize error that occurs during data entry. Then, the data exported to SPSS version 20.

4.7.4. Data processing and analysis

After the data was exported from Epidata to SPSS version 20, the data were edited, cleaned and sorted as well as any missing data was identified from non missing data. Then the data was

analyzed using statistical package for social sciences (SPSS version 20). Descriptive statistics; means, frequency, percentages and standard deviations were generated. To determine an association between dependent and independent variables adjusted odds ratio was used using logistic regression and the significance level was determined using $p<0.05$ or using confidence interval of 95%. In logistic regression analysis each independent variable was enterd separately into bivariate analysis. Then; variables with p-value of less than 0.25 on bivariate analysis were considered as a candidate for multivariate logistic regression analysis. Co-llinearity diagnosis was calculated for candidate variables. There is no any co-linearity among candidate variables because of tolerances above 0.1 and variance inflation factor below 10 for each variable. Goodness of fit of the final model was checked using Hosmer and Lemeshow statistics.

4.8. Ethical considerations

The ethical approval was taken from the Ethical review board of Jimma University College of Public Health and Medical Sciences. Written informed consent was obtained from the study participants. Participant's strict confidentiality was insured and their identity was not showed and there was not dissemination of the information without the respondent's permission. The data given by the participants was used only for research purposes. Those who were actively suicidal during data collection was referred or consulted to the outpatient department responsible clinician and managed accordingly. The names of the patients were omitted.

4.9. Dissemination plan

The results of the study will be submitted to Jimma University College of Public Health and Medical Sciences. The copies of papers also will be submitted to hospital administration of JUTH department of psychiatry and for staff of psychiatry clinic and to JUTH administrative office psychiatry clinic. The research paper will be presented in health professional organizations, annual meetings, professional conferences and trainings. Finally, attempts will be made to publish results in national and international journal to disseminate worldwide.

4.10. Operational definitions

- **Family history:** having family history of mental illness, suicide attempt, and suicide completed in the family i.e. uncle, aunt, parents, grandparents, siblings.
- **Social support:** Oslo 3-items social support scale was used;

- ✓ A score of 3-8 is poor support.
- ✓ 9-11 is moderate support
- ✓ 12-14 is strong support

- **Suicidal behaviors**: The presence of suicidal behavior was measured by ≥8/18 in SBQ-R score where as a score of <8 indicated absence of suicidal behavior.
- **Suicidal ideation**—thoughts of serving as the agent of one's own death. If the respondent did this and that he /she had the behaviors otherwise not.
- **Suicidal intent**—subjective expectation and desire for a self-destructive act to end in death. If the respondent did this and that he /she had the behaviors otherwise not.
- **Attempted suicide:** the act to kill oneself where death did not occur but the intention of the person was to die. If the respondent did this and that he /she had the behaviors otherwise not.
- **Aborted suicide attempt**—the person intended to die but the attempt stopped before physical damage occurred.
- **Alcohol use disorders:** with CAGE cutoff point ≥2 considering alcohol use disorders.
- **Nicotine Dependence:** Fagerstrom Test a cutoff point ≥5/6 considered nicotine dependence.
- **Severely ill:** the patient who is restless, agitated, violent, catatonic, has disorganized behaviors and psychotic
- **Income:** the monthly family income was taken and by quartile classification categorized into; < 500, 501-1000, 1001-2000 and > 2000 Ethiopian birr.
- **Social problems:** divorce, quarrelling with spouse, family, friends, educational problems, luck of supports
- **Living condition:** with whom the patient lives
- **Family:** those include parents, children, wife/husband
- **Cognitive problems:** Dementia, delirium and prominant negative symptoms, amnestic disorders
- **Communication problems:** Those having language disorders.

CHAPTER FIVE: RESULTS

5.1. Socio-demographic and economic characteristics

A total of 385 patients were invited and fully participated in the study making a response rate of 100%. Majority (72.2%) of the patients were males. The mean age and standard deviation of the patients was 32 year (±9.83 years); with a minimum and maximum age value of 18 and 70 year respectively. The largest proportion 152(39.4%) of patients were age between 28-37 years followed by 142(36.9%) patients belonging to the age group 18-27 years. Two hundred fifteen (55.8%) and 142 (36.9%) of the patients were single and married respectively related to their marital status during the study period. Most of the patients 235 (61.0%) were Muslim by religion followed by 110(28.6%) Orthodox Christian. With regard to ethnicity, majority of participants 276(71.7%) were Oromo followed by Amhara which accounts 48(12.5%) (Table 1).

Ninety seven (25.2%) of the patients were unemployed while 83(21.6%) of the patients were full time employee. About 120 (31.2%) patients were illiterate, 93(24.2%) and 97(25.2%) of the patients had completed primary and secondary school education respectively (Table 1). The mean monthly family income and standard deviation was 1475.50 Ethiopian birr (±1432.70 Ethiopian birr); with minimum and maximum value of 50 and 10,000 Ethiopian birr respectively. According to quartile income classification 114(29.6%) patients had a monthly income of less than 500 Birr ($24.7), followed by 99(25.7%) patient having monthly income of 1001-2000 Birr ($49.4-98.6). The rest 96(24.9%) and 76(19.7%) were had a monthly income of 501-1000 birr ($49.3) and >2000 birr (>$98.6) respectively. Regarding living condition majority of participants 349(90.6%) were living with their family (Table 1).

Table 1: Socio-demographic characteristics of people with mental illness attending treatment at JUTH psychiatry clinic, south west Ethiopia 2014 (n=385).

Variables	Category	Numbers	Percent
Sex	Males	278	72.2
	Females	107	27.8
Age	18-27	142	36.9
	28-37	152	39.4
	38-47	55	14.3
	≥ 48	36	9.4
Marital status	Single	215	55.8
	Married	142	36.9
	Divorced/ separate/widowed	28	7.3
Religion	Muslim	235	61.0
	Orthodox	110	28.6
	Protestant	36	9.4
	Others[R]	4	1.0
Ethnicity	Oromo	276	71.7
	Amhara	48	12.5
	Gurage	20	5.2
	Dawuro	12	3.1
	Others[E]	29	7.5
Educational status	Illiterate	120	31.2
	Primary school(1-8)	93	24.2
	Secondary /high school (9-12)	97	25.2
	Tertiary (12+)	75	19.5
Occupation	Unemployed	97	25.2
	Employed	83	21.6
	Farmer	56	14.5
	Student	44	11.4
	Merchant	34	8.8
	House wife	33	8.6
	Daily labor	22	5.7
	Others[O]	16	4.2
Living condition	Alone	18	4.7
	With family	349	90.6
	Others[L]	18	4.7

Others[L] *includes (those living other than parents, wife/husband and children).*

Others[R] *include (catholic and Jehovah witness religion).*

Others[E] *includes (Yem, Tigre, Silte, kefa, Wolayta, Benchi maji ethnic groups).*

Others[O] *includes (retire, house servant, preacher).*

5.2. Characteristics of mental illness and social support

Form the total respondents, 137 (35.6%) and 113(29.4%) were diagnosed to have schizophrenia and major depressive disorders respectively. About 156 (40.5%) of patients had insidious (within 3-12 months) mode of illness onset while 111 (28.8%) of patients had acute (within 3 months) mode of illness onset. Regarding duration of illness, majority of patients (75.1%, n=289) had chronic course (≥ 2 years durations) followed by 69 (17.9%) patients had sub acute (three months to two years) durations. About 152 (39.5%) of patients had history of admission. 139 (36.1%) of the patient had a single admission while 13 (3.4%) of the patients had two or more hospital admission. Larger proportions of patients (92.5%, n=356) had two or more follow up treatment while the rest 29 (7.5%) had only a single visit and treatment. Of the total patients only 55 (14.3%) of them had family history of mental illness. Regarding social support 137(35.6%), 158(41.0%) and 90(23.4%) of patients had poor, moderate and strong social support respectively (Table 2).

Table 2: Mental health related characteristics of people with mental illness attending treatment at JUTH psychiatry clinic, south west Ethiopia 2014 (n=385).

Variables	Category	Number	Percent
Diagnosis	Schizophrenia	137	35.6
	Major depressive disorders	113	29.4
	Bipolar disorders	67	17.4
	Others[P] psychotic disorders	31	8.1
	Substance induced psychiatry disorders	12	3.1
	Anxiety disorders	11	2.9
	Other[D] psychiatry disorders	14	3.6
Mode of illness onset	Abrupt (within hours/days)	59	15.3
	Acute (< 3 months)	111	28.8
	Insidious 3-12 months	156	40.5
	Insidious ≥ 12 months	59	15.3
Duration of Illness	Acute < 3 months	27	7.0
	Sub acute 3months-2 years	69	17.9
	Chronic ≥ 2 years	289	75.1
Family history mental illness	No	330	85.7
	Yes	55	14.3

Others[D] *includes (somatoform, psychiatry disorders due to medical conditions, dysthymia, unspecified disorders, other mood disorders, dissociative disorders, adjustment disorders and personality disorders)*

Others[P] includes (brief psychotic, schiaffective, schizophreniform and delusional disorders)

5.3. Characteristics of substance use conditions

From the total patients 295 (76.6%) were never used alcohol while 90 (23.4%) had the habit of drunk alcohol. Fifty six (14.5%) of patients had alcohol use disorders (as defined by CAGE ≥ 2) while 34 (8.8%) of patients had no alcohol use disorders. A total of 128 (33.2%) patients smoke cigarette. Seventy nine (20.5%) had nicotine dependence (as define by fagerstrom nicotine dependence test ≥ 5) and the rest 49 (12.7%) had no nicotine dependence.

A large proportion 221(57.4%) of patients chewed khat. 131 (34.0%) of patients chew everyday, 45 (11.7%) chew 2-3 times per week, 28 (7.3%) chew once per week and 17 (4.4%) were other khat chewers. From the total khat chewers, 206 (53.5%) of the patients were chewing at least for 2 years duration and the rest 15 (3.9%) chew for less than two years. From the total patients 27 (7.0%) use other substance (Shisha, Hashish/Cannabis/Marijuana/Gangia, Tobacco inhale) and 17 (4.4%) use cannabis.

5.4. Magnitudes of Suicidal Behaviors

The reliability of Suicidal Behaviors Questionnaire-Revised (SBQ-R) was calculated and found to have cronbach's α=0.79. The prevalence of suicidal behaviors (as defined by SBQ-R a total score ≥8) was 28.6% with confidence interval (±4.51%) (Figure 2). The lifetime prevalence of suicidal ideation, intent and attempts with their confidence intervals were 21.8%(±4.12), 16.9%(±3.74) and 16.1%(±3.67) respectively. Number of suicide attempts ranges from 1-3 and 8(2.1%) of patients attempted for more than once. The prevalence of suicidal ideation in the past one year (12 months) was 115(29.9%) with confidence interval of (±4.57). Out of those 63(54.8%) had once and 34(29.6%) had twice suicidal ideation at two different point in time. Hundred nine (28.3%) patients had threat of suicide attempt or they told to other people as they were going to commit suicide. out of those 87 (79.8%) once and 22 (20.2%) more than once told to others. The likelihood of suicidal behavior in the future was reported by 3 (0.8%) patients. Family history of attempted suicide and completed suicide were 12(3.1%) and 7(1.8%) respectively (Table 3). Nearly half of the patients (45.2%, n=174) never reported suicidal ideation, intent and attempt.

Table 3: Magnitude of suicidal behaviors among people with mental illness attending treatment at JUTH psychiatry clinic, south west Ethiopia 2014 (number=385).

Variables	Category	Number	Percent
Life time suicidal ideation, intent and/or attempts	Never	174	45.2
	Suicidal ideation	84	21.8
	Intent	65	16.9
	Suicide attempts	62	16.1
Frequency of suicidal ideation in the past one year	Never	270	70.1
	Once	63	16.4
	Twice	34	8.8
	3-4 times	14	3.6
	Always (≥ 5 times)	4	1.0
Suicidal threats	Once	87	79.8
	Twice and more	22	20.2
Likely hood of suicide in the future	Never	260	67.5
	No chance at all	64	16.6
	Rather unlikely	46	11.9
	Unlikely	12	3.1
	Likely	3	0.8
Frequency of suicide attempts	Once	54	87.1
	Twice and more	8	12.9

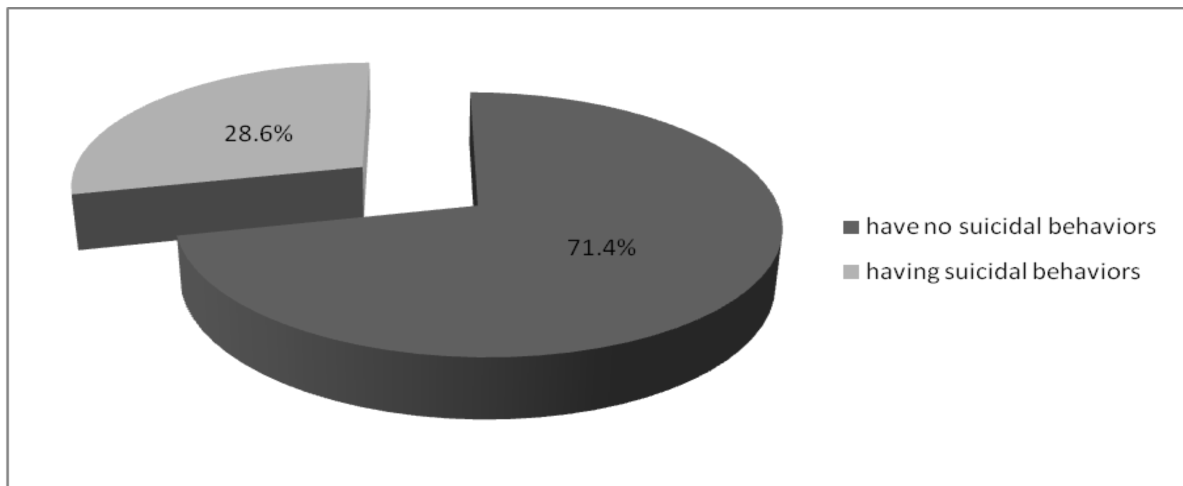

Figure 2: Lifetime prevalence of suicidal behaviors among people with mental illness attending treatment at JUTH psychiatry clinic, south west Ethiopia 2014.

5.5. Places and methods of suicide attempt

Among 62 suicide attempters (75.8%, n=47) were attempted at home. The most frequent means/methods used for suicide attempt were hanging in 28(45.2%) followed by poison 11(17.2%) and drug/medication overdose 10(16.1%) (Figure3). The involvement of family members aborted 38(61.3%) of patients who were attempting suicide. Out of those who attempted suicide, 24 (38.7%) felt angry during the interview (Table 4).

Table 4: details of patients who attempted suicide among people with mental illness who attending treatment at JUTH psychiatry clinic, 2014 (numbers=62).

Variables	Category	Number	Percent
Places of suicide attempts	Home	47	75.8
	Forest	6	9.7
	Field	4	6.5
	River	3	4.8
	School	2	3.2
Abort of suicide attempt	Family	38	61.3
	Friends	10	16.1
	God	8	12.9
	Health profession	3	4.8
	Others[S]	3	4.8
Feeling after suicide attempt	Felt angry	24	38.7
	Felt guilty	21	33.9
	Felt nothing	17	27.4

Others[S] *includes (neighbors, other people around there during the events).*

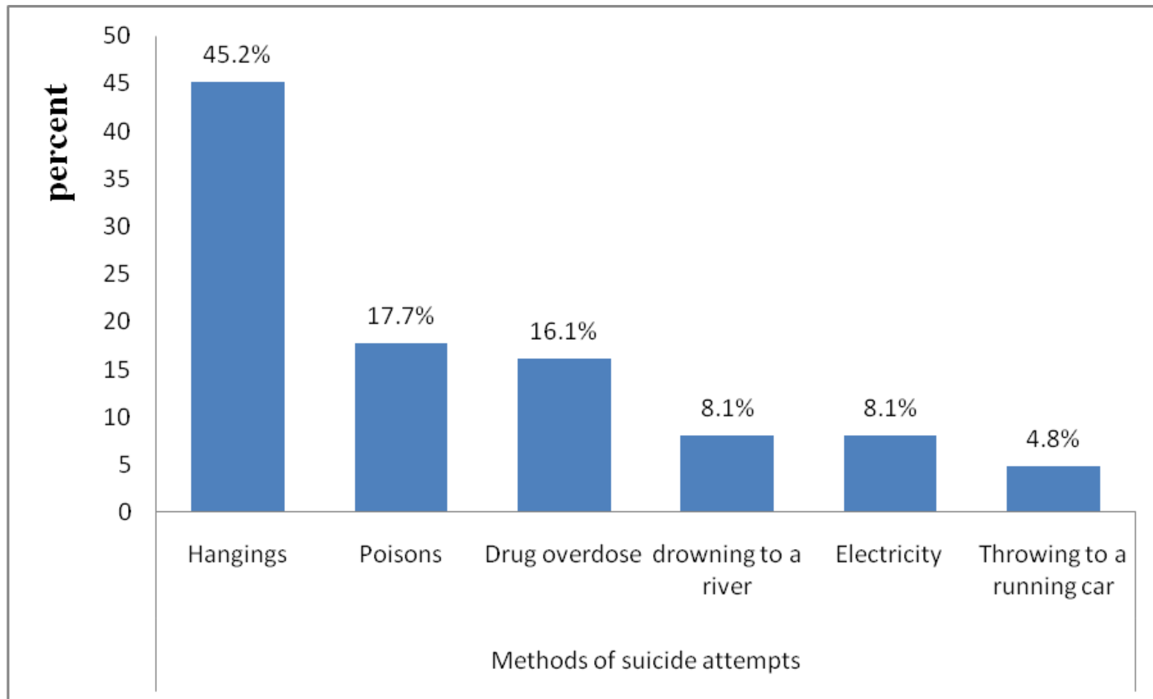

Figure 3: Methods used for suicide attempt among people with mental illness attending treatment at JUTH psychiatry clinic south west Ethiopia 2014 (n=62).

5.6. Factors associated with suicidal behaviors in bivariate analysis

Bivariate analysis was performed to get candidate variables for multivariate analysis.

5.6.1. Socio-demographic and economic factors of suicidal behaviors

In bivariate analysis from socio demographic and economic related factors age of 18-27, single in marital status, Orthodox Christian, Gurage ethnicity, illiterate and living with others were statistically associated with suicidal behaviors at p-value of < 0.05 (Table 5).

Table 5: Binary logistic regression analysis of socio-demographic factors of suicidal behavior among people with mental illness attending treatment at JUTH psychiatry clinic south west Ethiopia, 2014 (n=110).

Variables	Category	Suicidal behaviors		COR(95%CI)	P-value
		Yes N (%)	No N (%)		
Sex	Males	77(27.7)	201(72.3)	Reference	
	Females	33(30.8)	74(69.2)	1.16(0.72-1.90)	0.54
Age	18-27	49(34.5)	93(65.5)	3.27(1.20-8.93)	0.02*
	28-37	46(30.3)	106(69.7)	2.69(0.98-7.36)	0.05*
	38-47	10(18.2)	45(81.8)	1.38(0.43-4.43)	0.59
	≥ 48	5(32.6)	31(86.1)	Reference	
Marital status	Single	70(32.6)	145(67.4)	1.80(1.10-2.95)	0.02*
	Married	30(21.1)	112(78.9)	Reference	
	Divorced/separate/widow	10(35.7)	18(64.7)	2.07(0.87-4.96)	0.10*
Religion	Orthodox	42(38.2)	68(61.8)	1.80(1.11-2.92)	0.02*
	Muslim	60(25.5)	175(74.5)	Reference	
	Others[R]	8(20.0)	32(80.0)	0.73(0.32-1.67)	0.46
Ethnicity	Oromo	74(26.8)	202(73.2)	Reference	
	Amhara	14(29.2)	34(70.8)	1.12(0.57-2.21)	0.74
	Gurage	10(50.0)	10(50.0)	2.73(1.09-6.82)	0.03*
	Others[E]	12(29.3)	29(70.7)	1.13(0.55-2.33)	0.74
Educational status	Illiterate	21(17.5)	99(82.5)	0.40(0.21-0.78)	0.01*
	Primary (1-8)	37(39.4)	57(60.4)	1.22(0.65-2.30)	0.53
	Secondary (9-12)	26(27.1)	70(72.9)	0.70(0.34-1.35)	0.29
	Tertiary (12+)	26(34.7)	49(65.3)	Reference	
Occupation	Employed	16(28.6)	40(71.4)	Reference	
	Unemployed	27(27.8)	70(72.2)	0.96(0.47-2.00)	0.92
	Farmer	19(22.7)	64(77.3)	0.74(0.34-1.61)	0.45
	Merchant	11(32.4)	23(67.6)	1.20(0.48-3.01)	0.70
	Student	19(43.2)	25(56.8)	1.90(0.83-4.37)	0.13*
	Others[O]	18(25.4)	53(74.6)	0.85(0.39-1.87)	0.69
Monthly family income	≤ 500	29(25.4)	85(74.6)	0.79(0.43-1.43)	0.43
	501-1000	29(30.2)	67(69.8)	1.00(0.54-1.83)	0.99
	1001-2000	30(30.3)	69(69.7)	Reference	
	>2000	22(28.9)	54(71.1)	0.94(0.49-1.81)	0.85
living condition	Alone	7(38.9)	11(61.1)	1.75(0.669-4.65)	0.26
	With family	93(26.6)	256(73.4)	Reference	
	With others[L]	10(55.6)	8(44.4)	3.32(1.32-8.98)	0.01*

NB * *indicates variables which show p-value of < 0.25 at bivariate analysis.*

Others[R] *include (protestant, catholic and Jehovah witness religion).*

Others[E] *includes (Yem, Tigre, Dawro, Silte, kefa, Wolayta, Benchi maji ethnic groups).*

Others[O] *includes (house wife, daily labor, retire, house servant, preacher*

5.6.2. Mental health and social support related factors

In bivariate analysis poor social support, major depressive disorder, abrupt and acute mode of onset of illness and having family history of mental illness were statistically associated with suicidal behaviors at p-value of < 0.05 (Table 6).

Table 6: Binary logistic regression analysis of social support and mental health factors with suicidal behavior among people with mental illness attending treatment at JUTH psychiatry clinic south west Ethiopia, 2014 (n=110).

Variables	Category	Suicidal behaviors		COR(95%CI)	P-value
		Yes N(%)	No N (%)		
Social support	Poor	49(35.8)	88(64.2)	1.95(1.06-3.58)	0.03*
	Moderate	41(25.9)	117(74.1)	1.23(0.67-2.26)	0.51
	Strong	20(22.2)	70(77.8)	Reference	
Family history of mental illness	Yes	25(45.5)	30(54.5)	2.40(1.34-4.31)	0.00*
	No	85(25.8)	245(74.2)	Reference	
Family history of suicide attempt	Yes	6(50.0)	6(50.0)	2.59(0.82-8.20)	0.11*
	No	104(27.9)	269(72.1)	Reference	
Family history of suicide	Yes	1(14.3)	6(85.7)	0.41(0.05-3.46)	0.41
	No	109(28.8)	269(71.2)	Reference	
Mode of illness onset	Abrupt (within hours/days)	20(33.3)	39(66.1)	1.99(1.02-3.86)	0.04*
	Acute (< 3 months)	40(36.0)	71(64.0)	2.26(1.26-3.78)	0.01*
	Insidious 3-12 months	32(20.5)	124(79.5)	Reference	
	Insidious ≥ 12 months	18(30.5)	41(69.5)	1.70(0.87-3.35)	0.12*
Duration of illness	Acute < 3 months	6(22.2)	21(77.8)	0.75(0.29-1.92)	0.54
	Sub acute 3months-2 years	24(34.8)	45(65.2)	1.39(0.80-2.44)	0.24*
	Chronic ≥ 2 years	80(27.7)	209(72.3)	Reference	
Frequency of hospital visit	First	11(37.9)	18(62.1)	1.59(0.72-3.48)	0.25
	two or more	99(27.8)	257(72.2)	Reference	
Diagnoses	Major depressive disorders	41(36.3)	72(63.7)	2.37(1.16-4.84)	0.02*
	Bipolar disorders	13(19.4)	54(80.6)	Reference	
	Schizophrenia	35(25.5)	102(74.5)	1.43(0.67-2.92)	0.33
	Others psychotic disorders	9(29.0)	22(71.0)	1.70(0.64-4.55)	0.29
	Substance induced disorders	5(41.7)	7(58.3)	2.97(0.81-10.86)	0.10*
	Other psychiatry disorders	7(28.0)	18(72.0)	1.62(0.56-4.67)	0.38

NB ** indicates variables which show p-value of < 0.25 at bivariate analysis.*

5.6.3. Substance related factors

From substance use related factors alcohol use disorders and nicotine dependence were statistically associated with suicidal behaviors in bivariate analysis at p-value of < 0.05 (Table7).

Table 7: Binary logistic regression analysis of substance use disorders with suicidal behavior among people with mental illness attending treatment at JUTH psychiatry clinic south west Ethiopia, 2014 (n=110).

Variables	Category	Suicidal behaviors		COR (95%CI)	P-value
		Yes	No		
Alcohol use disorders	Never drink	68(23.1)	227(76.9)	Reference	
	Non AUDs	13(38.2)	21(61.8)	2.07(0.98-4.34)	0.06*
	AUDs	29(51.8)	27(48.2)	3.59(1.99-6.47)	0.00*
Smoking habits	Never smoke	62(24.1)	195(75.9)	Reference	
	Non dependence	13(26.5)	36(73.5)	1.14(0.57-2.28)	0.72
	Dependence	35(44.3)	44(55.7)	2.50(1.48-4.24)	0.01*
Khat chewing habits and Frequency of chewing	Never chewing	39(23.8)	125(76.2)	Reference	
	Everyday	46(35.1)	85(64.9)	1.74(1.04-2.88)	0.03*
	2-3 times per week	12(26.7)	33(73.3)	1.17(0.55-2.47)	0.69
	Once per week	8(28.6)	20(71.4)	1.28(0.52-3.14)	0.59
	others[K]	5(29.4)	12(70.6)	1.34(0.44-4.03)	0.61
Other substance use	Yes	12(44.4)	15(55.6)	2.12(0.96-4.97)	0.06*
	No	98(27.4)	260(72.6)	Reference	

***Others**[I] includes (Hashish/Cannabis/Marijuana/gangia, Shisha, and Tobacco inhale)*

***Others**[K] includes those chewing khat occasionally (khat chewing less than per week)*

***NB**. * indicates variables which show p-value of < 0.25 at bivariate analysis*

AUDs=Alcohol Use Disorders

5.7. Independent Predictors of suicidal behaviors

In bivariate logistic regression analyses age, marital status, religion, ethnicity, education status, occupation, living condition, social support, diagnosis, having family history of mental illness, having family history of suicide attempt, mode of illness onset, duration of illness, frequency of hospital visit, alcohol use disorders, nicotine dependence, khat chewing and other substance use were become candidates for multiple logistic regression analysis at p-value < 0.25. Sex is clinically important variable for the study and added to the multivariate analysis.

Multiple logistic regression analysis was performed by using Backward Stepwise (Likelihood Ratio) logistic regression method to know the independent predictors of suicidal behaviors by controlling for confounder variables. There is no any co-linearity among candidate variables because of tolerances above 0.1 and variance inflation factor below 10 for each candidate variable. The Hosmer and Lemeshow statistic has chi-square value of 7.306 and a significance of 0.504 which means that Hosmer and Lemeshow test is not statistically significant and therefore the model has a good fit. Because p-value exceeds level of significance (α=0.05), that shows, there is no significant difference between the observed and predicted model values and hence the model fits the data well.

From the candidates; age category 18-27 and 28-37, Gurage ethnicity, having family history of mental illness, having duration of illness between 3 months to 2 years, major depressive disorders and other psychiatry disorders (like anxiety, psychiatry disorders due to medical illness, somatoform disorders, dysthemia, personality disorders and adjustment disorder) as a group, alcohol use disorder and nicotine dependence were independent predictors of suicidal behavior at p-value of < 0.05 (Table 8).

Patients whose age group were 18-27 and 28-37 were 4.5 times and 3.3 times more likely to develop suicidal behaviors as compared to patients whose age group was ≥ 48 with (AOR=4.53, 95% CI:1.37-14.93) and (AOR=3.25, 95% CI:1.01-10.41) respectively. Gurage ethnicity was 5.3 times more likely to develop suicidal behaviors as compared to Oromo ethnicity with (AOR=5.28, 95% CI: 1.47-18.97). Patients who had family history of mental illness were 2.3 times more likely to develop suicidal behaviors as compared to patients who had no family history of mental illness with (AOR= 2.25, 95% CI:1.11-4.57).

Patients with durations of mental illness between three months and two years were 2 times more likely to develop suicidal behaviors as compared to chronically ill (≥ 2 years) with (AOR=1.95, 95% CI:1.02, 3.74). Patients with the diagnoses of major depressive disorders and with the diagnosis other psychiatry diagnoses (like anxiety, psychiatry disorders due to medical illness, somatoform disorders, dysthemia, personality disorders and adjustment disorder) as a group were 4.5 times and 3.8 times more likely to develop suicidal behaviors as compared to patients with diagnosis of bipolar disorders with (AOR=4.48, 95% CI: 1.95-10.26) and (AOR=3.84, 95% CI: 1.16-12.67) respectively (Table 8). Patients who had alcohol use disorder and nicotine dependence were 2.3 times and 2.2 times more likely to develop suicidal behaviors as compared to non alcohol users and non smokers with (AOR=2.29. 95% CI: 1.08-4.85) and (AOR=2.21, 95% CI: 1.08-4.53) respectively (Table 8).

In the final model from the candidates; religion, educational status, marital status, occupation, living condition, social support, numbers of hospital visit, family history of suicide attempt, khat chewing, other substance use (like shisha, hashish, cannabis, marijuana) and sex were not associated with suicidal behaviors (Table 8).

Table 8: Multiple logistic regression analysis of factors associated with suicidal behaviors among people with mental illness attending treatment at JUTH psychiatry clinic, 2014.

Variables	Category	Suicidal behaviors		AOR(95% CI)	P-value
		Yes N(%)	No N(%)		
Age	18-27	49(34.5)	93(65.5)	4.53(1.37-14.93)	0.01*
	28-37	46(30.3)	106(69.7)	3.25(1.01-10.41)	0.04*
	38-47	10(18.2)	45(81.8)	1.87(0.48-7.28)	0.37
	≥ 48	5(32.6)	31(86.1)	Reference	
Ethnicity	Oromo	74(26.8)	202(73.2)	Reference	
	Amhara	14(29.2)	34(70.8)	1.42(0.60-3.40)	0.43
	Gurage	10(50.0)	10(50.0)	5.28(1.47-18.97)	0.01*
	Others[E]	12(29.3)	29(70.7)	2.00(0.68-5.86)	0.21
Family history of mental illness	Yes	25(45.5)	30(54.5)	2.25(1.11-4.57)	0.03*
	No	85(25.8)	245(74.2)	Reference	
Duration of illness	Acute (< 3 months)	6(22.2)	21(77.8)	0.55(0.19-1.61)	0.27
	Sub acute (3 months to 2 years)	24(34.8)	45(65.2)	1.95(1.02-3.74)	0.04*
	Chronic (≥ 2 years)	80(27.7)	209(72.3)	Reference	
Diagnoses	Major depressive disorder	41(36.3)	72(63.7)	4.48(1.95-10.26)	0.00*
	Bipolar disorders	13(19.4)	54(80.6)	Reference	
	Schizophrenia	35(25.5)	102(74.5)	1.93(0.81-4.61)	0.14
	Others[P] psychotic disorders	9(29.0)	22(70.1)	1.39(0.45-4.29)	0.57
	Substance induced psychiatry disorders	5(41.7)	7(58.3)	2.97(0.61-12.67)	0.18
	Other psychiatry disorders[D]	7(28.0)	18(72.0)	3.84(1.16-12.67)	0.03*
Alcohol use behavior	Not drink at all	68(23.1)	227(76.9)	Reference	
	Non-alcohol use disorders	13(38.2)	21(61.8)	1.30(0.53-3.16)	0.58
	Alcohol use disorders	29(51.8)	27(48.2)	2.29(1.08-4.85)	0.03*
Smoking Behaviors	Not smoke at all	62(24.1)	195(75.9)	Reference	
	Non dependence	13(26.5)	36(73.5)	1.31(0.57-3.03)	0.53
	Dependence	35(44.3)	44(55.7)	2.21(1.08-4.53)	0.03*

NB **indicates variables which show association with suicidal behaviours at multivariate analysis*

Controlled for:-*Religion, sex, occupation, educational status, living condition, frequency of hospital visit, marital status, social support, family history of suicide attempt, khat chewing and other substance use.*

CHAPTER SIX: DISCUSSION

In this study the life time prevalence and predictors of suicidal behaviors were assessed. The methods and places of suicide attempt as well as supports for aborting attempted suicides were also assessed. The independent predictors of suicidal behaviors were; major depressive disorders, other mental disorders (like anxiety, psychiatry disorders due to medical illness, somatoform disorders, dysthemia, personality disorders and adjustment disorder) as a group, age of 18-27 and 28-37, having family history of mental illness, Gurage ethnicity group, nicotine dependence, alcohol use disorders and having sub acute (3 months to 2 years) durations of mental illness.

The results of this study showed prevalence of suicidal behavior was 28.6% (±4.51). The lifetime prevalence of suicidal ideation, intent and attempt were 21.8% (±4.12), 16.9% (±3.74) and 16.1% (±3.67) respectively. The prevalence of suicide attempt in this study is consistent with a study done in Gondar hospital psychiatry outpatients (19.2%) but the suicidal ideation is lower than the study done in Gondar hospital psychiatry outpatients (64.8%). This might be due to that the SBQ-R used in this study could not assess how many of patients had suicidal ideation before attempting suicide. The instrument also assessed minor suicidal thought and intent separately. The investigator in Gondar hospital developed a structured questionnaire which enables to assess how many of suicide attempters had made suicidal ideations before attempting suicide (28).

The lifetime prevalence of suicidal ideation and suicidal attempts in this study are higher than a community based study among adult population of Addis Ababa (the capital city of Ethiopia) that reported that the lifetime suicidal ideation and suicidal attempt 2.7%, and 0.9% respectively (29). The lifetime suicide attempt was also higher than the lifetime suicidal attempt in a study conducted at Butajira (Southern Ethiopia) among adult population which was 3.2% (30). This might be due to the fact that our study was conducted in a hospital sample of people living with mental illness in contrary to the above mentioned community based studies in Addis Ababa and Butajira Ethiopia. There are evidences that showed people living with mental illness are at higher risk of suicidal ideation and attempt compared to the general population (13, 23, 27, 28, 33, 34, 35, 36, 37, 38, 39, 40 and 41).

The lifetime prevalence of suicidal ideation, intent and suicide attempts in this study is lower than a national survey conducted in South Africa among adults about lifetime mental disorder and suicidal behaviors; those who having a prior lifetime DSM IV disorder 61%, 64% and 70.3%

were reported suicidal ideation, plan and attempt respectively (38). This discrepancy might be due to the interventions because this study was conducted among follow up patients. In addition to this the instrument used and socio cultural difference of the study populations. However, the lifetime prevalence of suicidal ideation, plan and attempt in this study are higher than stress and health survey conducted in South African, where the lifetime prevalence rates of suicidal ideations, suicide plans and suicide attempts were 9.1%, 3.8% and 2.9% respectively (27). This might be again due to the fact that our study samples were people living with mental illness who are high risk populations as compared to a community survey conducted in South Africa.

But, the lifetime prevalence of suicidal behaviors and suicide attempt of this study are lower than a study conducted in Finland among bipolar patients. The prevalence of suicidal behaviors was 80% and suicide attempt was 51% (21). And also lifetime prevalence of suicidal ideation and suicide attempt are lower than a study conducted in USA California among psychiatry outpatients who reported suicidal ideation and attempt of 55% and 25% respectively (35). This discrepancy might be due to that suicide also more common in western societies (3, 4, 15, 16, and 31). In this study majority of suicide attempt were occurred at home. The most common method used for suicide attempt reported was hanging followed by poisoning and drug/medication overdose. So this is important for prevention of access by educating family and arranging medication for risk patients. Family involvement was the most support to abort attempted suicide. This is consistent with studies in other parts of the country (28, 29, 30, and 34). The medication overdose is incomparable with other studies in other parts of Ethiopia. This might be this study is conducted among follow up outpatients who were taking medications.

In this study, patients being in the age group of 18-27 and 28-37 were significant predictors of suicidal behaviors. This is comparable with a community based study in Addis Ababa (29), world public health review 2012 about suicide and suicidal behaviors (3) and findings from WHO world mental health survey 2009 (18) and a study in UK about suicide in older adults; determinants of risk and opportunities for prevention (44). This might be due to that young age is common age for onset of mental illness, substance abuse and there are many stressors (39). In contrast to studies conducted in other parts of the country about suicide, suicidal ideation and attempt, in our study Gurage ethnicity group had significant association with suicidal behaviors. This ethnic group is hard workers in our country as compared to others (52). This might induce

suicidal behaviors when their functionality is diminution. In this study having a diagnosis of major depressive disorder was significantly associated with suicidal behaviors. This is consistent with a study conducted about suicide and suicide attempt in Butajira Ethiopia, among people with severe mental illness (34). And also a study done about mental disorders and suicidal behaviors in South Africa (38) and a study conducted in high income countries. Suicidal ideation markedly prevalent in depressed patients and depression is a precondition for suicide attempt (13, 40, and 41).

In addition to Major depressive disorder, other mental illnesses (like anxiety, psychiatry disorders due to medical illness, somatoform disorders, dysthemia, personality disorders and adjustment disorder) as a group were significantly associated with suicidal behaviors. This is incomparable with studies conducted in other parts of Ethiopia. This might be due to that other studies conducted at community setting and the rest studied among severe mental illness (MDD, bipolar and schizophrenia) only. But this is comparable with study done in high income countries (35, 37, 38, and 41).

In this study having family history of mental disorders was significantly associated with suicidal behaviors, and this is incomparable a study done at Gondar hospital psychiatry out patients (28). However it is consistent with the finding from stress and health survey conducted in South Africa which said those who had family history of psychopathology had high prevalence of suicidal ideation and suicide attempt than those who had no family history (27). In our study duration of mental illness between 3 months and 2 years were significantly associated with suicidal behaviors. This is comparable with a study conducted about suicide and suicidal attempt in Butajira, Ethiopia which said suicidal attempt decreases as the duration of illness increases in schizophrenic patients (34). This might be due to the intervention because the study conducted in follow up patients or patients might have prominent negative symptoms and deteriorated.

Alcohol use disorders had significant association with suicidal behaviors in our study which is comparable with a study conducted in Butajira, Ethiopia among severe mental ill patients (34) and a study about predictors of suicidal ideation among depressed inpatients in Malaysia (42). And also comparable with a study about suicidal attempt among substance used disorders in USA California (45). In addition to alcohol use disorders; nicotine dependence had significant association with suicidal behaviors. This is comparable with a study conducted in Iran among

psychiatry inpatients about the association of smoking and suicide (46). And also comparable with a study about suicidal thoughts and suicidal behaviors in Australia among adults: finding from national survey of mental health and wellbeing (25).

Strength and limitations

This study has some strength as compared to other studies. This study used standard instruments to assess suicidal behaviors, substance co morbidity; alcohol use disorders, nicotine dependence as well as social support were assessed. Despite providing valuable baseline data, there are some limitations in this study. Social desirability bias; the data was collected by interviewer administered method. So the respondents might reply in favorable of others that are either over reporting or under reporting. Recall bias; there might be forgetfulness and there was not cross check about the information they gave us. In this study only adult psychiatry patients were included, so it is difficult to generalize all psychiatry patients because children and adolescents psychiatry patients are not included in the study. The instrument SBQ-R and Fagerstrom Test were not used in developing countries before.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS

7.1. CONCLUSION

This study showed that the prevalence of suicidal behaviors is high. Most of suicide attempts occur at home. The methods used for suicide attempt (hanging self, poisoning and drug /medication overdose) were preventable. The involvement of family members were the main reasons for the aborted of suicide attempts. Major depressive disorders and other psychiatry disorders (like anxiety, psychiatry disorders due to medical illness, somatoform disorders, dysthemia, personality disorders, and adjustment disorder) as a group, alcohol use disorders, nicotine dependence, having family history of mental illness, being young age, Gurage ethnic group and sub acute duration of illness are the independent predictors of suicidal behaviors.

7.2. RECOMMENDATIONS

According to the findings of this study, we would like to forward the following recommendations for stakeholders who concern:

To JUTH psychiatry clinic clinicians

Suicidal behaviors and substance co morbidity screening and management should be given more emphasis.

To Jimma zone health office

Establish mental health service at primary health care setting, manage mental ill patients at their nearby setting and screen for suicidal behaviors and substance use disorders and strengthen referral systems.

Ministry of health

Focus has to be given for substance use disorders and mental illness screening, referral and management protocol and distribute for health professionals to prevent suicide.

For interested researchers

The impact of duration of mental illness and ethnicity on suicidal behaviors is an eligible to be researched.

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ANNEX I: DATA COLLECTION INSTRUMENTS

Part I: Questionnaire in English version

Jimma University College of Public Health and Medical Science School of Graduate Studies Department of Psychiatry

This questionnaire is prepared to assess prevalence and predictors of suicidal behaviors among people with mental illness who attend treatment at JUTH psychiatric clinic, south west Ethiopia in the year 2014.

Informed consent

______________________________, I am a postgraduate student in JUTH to hold master of integrated clinical and community mental health. Currently I am conducting my research thesis to assess the prevalence and predictors of suicidal behaviors among people with mental illness who attend treatment at JUTH psychiatric clinic. The finding of this research is very important for future amendment of the service and to create awareness and alarm for the clinician to give emphasis to their patients, so your response to the questions is vital for achieving the goal of the research and to improve future performance of intervention and services of the clinic, so I am asking you for your cooperation. It is your right to refuse any or all of the questions.

Here there are questions for you to be completed by you. Your honestly participation is vital. You may also ask me to clarify questions if you don't understand them or can stop the interview at any time. Finally, all the information will be used for the study and is kept completely confidentiality. Your responses to the questions are identified only by numbers; never by name, as explained above the purpose of the study is purely to solve the problem and to improve future interventions.

Do you agree to participate in the study? 1. Yes 2. No

If 'yes' signitaure________________________ continue to the next page

Thank you for your participation

Name of data collector ________________________ signature __________ date __________

Name of supervisor ______________________ signature __________ date __________

Patient's card no. _______________

The questionnaire consists of five parts;

Part I: Questions related to the socio demographic characteristics of the patient

Sr.No.	Questions	Response and categories	Code
101	Age of the patient (in years)		
102	Sex of the patient	1. Male 2. Female	
103	Marital status	1. Single 2. Married 3. Divorce 4. Separate 5. Widowed	
104	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Others (specify)	
105	Ethnicity	1. Oromo 2. Amhara 3. Yem 4. Dawuro 5. Keffa 6. Gurage 7. Others (specify)	
106	Education status	1. Illiterate 2. Write and read only 3. Literate write grade completed ________________________________	
107	Occupation	1. Employed 2. Unemployed 3. Farmer 4. Merchant 5. Daily labor 6. Student 7. Retire 8. Housewife 9. Others	
108	Estimated household income in Ethiopian birr	1. monthly _______ 2. yearly _______	
	Living condition	1. Lives alone	

110		2. With family (parents, spouse, children, uncle and aunt) 3. Homeless 4. Others specify ___________	
111	How many visits do you have?	1. First 2. Two and above	

Questionnaires related to social support

The inquiry is social support around you. Please circle the appropriate one.

111	How many people are so close to you that you can count on them if you have serious personal problems (choose one option)?	1. None
		2. 1 or 2
		3. 3-5
		4. More than 5
112	How much concern do people show in what you are doing (choose one option)?	5. A lot of concern and interest
		4. Some concern and interest
		3. Uncertain
		2. Little concern and interest
		1. No concern and interest
113	How easy is it to get practical help from friends or dorm-mates' if you should need it (choose one option)?	5. Very easy
		4. Easy
		3. Possible
		2. Difficult
		1. Very difficult

Part II. Questions related to substance use disorders

Sr. no	**Question related to alcohol (CAGE)**	Answer
201	Do you drink alcohol?	1. yes 2. no
201.1	If your answer is yes for question number 1 please answer the following questions.	
202	Have you ever felt you should cut down on your drinking?	1. yes 2. no
203	Have people annoyed you by criticizing your drinking?	1. yes 2. no
204	Have you ever felt bad or guilty about your drinking?	1. yes 2. no
205	Have you ever had a drink first thing in the morning or to get rid of a hangover?	1. yes 2. no

Fagerstrom Test for Nicotine Dependence (FTND)

206	Do you smoke cigarette?	1. Yes 2. No			
206.1	If your answer is yes to question 206 answer the following				
		0	**1**	**2**	**3**
206.2	How soon after you wake up do you smoke your first cigarette?	After 60 minutes	31-60 minutes	6-30 minutes	Within 5 minutes
206.3	Do you find it difficult to refrain from smoking in places where it is forbidden, e.g., in church, at the library, cinema, etc	No	Yes		
206.4	Which cigarette would you hate most to give up?	all others	The first in one the morning		
206.5	How many cigarettes/day do you smoke?	<=10	11-20	21-30	>=31
206.6	Do you smoke more frequently during the first hours of waking than during the rest of the day?	No	Yes		
206.7	Do you smoke if you are so ill that you are in bed most of the day?	No	Yes		
Other substance related questionnaires					
212	Do you chew khat?	1. Yes			

		2. No	
212.1	If yes for question 212	1. Daily 2. 2-3 times per week 3. Once a week 4. Other specify ____________	
212.2	How long did you use?	1. In months ____________ 2. In years ____________	
213	Do you use substances like marijuana/ gangia, shisha, hashish and cannabis?	1. Yes 2. No	
213.1	If yes for Q-215 which type?	____________	
213.2	If yes to question 215	1. Daily 2. 2-3 times per week 3. Once per week 4. Other specify ____________	
213.3	How long did you use?	1. In months ____________ 2. In years ____________	

Part III: Questions related to the mental health factors

301	How long the duration of the illness?	1. In hours/days/weeks ______ 2. In month ____________ 3. In year ____________	
302	What is the speed of onset of illness?	1. Abrupt (within hours, days) 2. Acute (within 3 months) 3. Insidious (3-12 months) 4. Insidious (>12 months)	
303	Psychiatric diagnosis of the illness (refer the card) if more than one write all	______________________	
304	Frequency of admission	______________________	
305	Is there family history of mental illness? (Parents, siblings, uncle aunt)	1. Yes 2. No	
306	Is there family history of suicide attempt?	1. Yes 2. No	
307	Is there family history of suicide completed?	1. Yes 2. No	

Part IV: Questions about suicidal behavior (suicidal ideation, intent and attempts)

Please check the number beside the statement or phrase that best applies to you.(check only one for each)

401	Have you ever thought about or attempted to kill yourself?	1. Never 2. It was just a brief passing thought 3a. I have had a plan at least once myself but did not try to do it 3b. I have had at least once to kill myself and really wanted to die 4a. I have attempted to kill myself but didn't want to die 4b. I have attempted to kill myself and really hoped to die	
402	How often have you thought about killing yourself in the past year?	1. Never 2. Rarely (1 time) 3. Sometimes (2 times) 4. Often (3-4 times) 5. Very often (5 or more times)	
403	Have you ever told someone that you were going to commit suicide or that might do it?	1. No 2a. Yes, at one time but did not really want to die 2b. Yes, at one time and really want to do it 3a. Yes, more than once but did not want to do it 3b. Yes, more than once and really wanted to do it	
404	How likely is it that you will attempt suicide someday?	0. Never 1. No chance at all 2. Rather unlikely 3. .unlikely 4. Likely 5. Rather likely 6. Very likely	

Part V. Questions related to methods and places of suicide attempts

501	Where was the suicide attempt?	1. Home 2. Field 3. Forest 4. River 5. health institution 6. other specify ______	
502	What was the means of suicide attempt?	1. Hanging 2. Poison 3. Electricity 4. Drowning 5. Vehicle injury 6. Drug overdose 7. Other (specify ______________	
503	What did you feel after suicide attempt?	1. Angry 2. Guilt 3. 3. Indifferent (nothing feel)	
504	Who was the support for suicide attempt failure?	1. Family 2. Friends 3. wife or husband 4. Health care 5. God 6. other specify______	

Part II: Questionnaires in Amharic Version

ጅማ ዩኒቨርሲቲ የህብረተሰብ ጤና እና ህክምና ሳይንስ ኮሌጅ

የስነ አእምሮ ህክምና ትምህርት ክፍል

በጅማ ዩኒቨርሲቲ መማሪያ ሆስፒታል የስነአእምሮ ህክምና ክፍል አዋቂ ተመላላሽ ታካሚዎች መካከል ምን ያህሎቹ እራሣቸዉን ለማጥፋት እንደሚያስቡ እና ምን ያህሎቹ ደግሞ እራሳቸዉን ለማጥፋት እንደሞከሩ ለማዎቅ የተዘጋጀ መጠይቅ፡፡ ጅማ ዩኒቨርስቲ 2006 ዓ. ም.

የስምምነት ዉል

የተከበራችሁ የጥናቱ ተሳታፊዎች

እኔ እንዳላማዉ ሣልለዉ በአሁኑ ሰዓት በጅማ ዩኒቨርስቲ በስነአእምሮ ህክምና የድህረ ምረቃ ተማሪ ስሆን መመረቂያ ፅሁፍ እየሰራዉ እገኛለሁ፡፡ የእዚህ ጽሁፍ ወይም ጥናት ትኩረት በጅማ ዩኒቨርሲቲ መማሪያ ሆስፒታል የአዋቂ የስነአእምሮ ህክምና ተመላላሽ ታካሚዎች መካከል ምን ያህሎቹ እራሣቸዉን ለማጥፋት እንደሚያስቡ እና ምን ያህሎቹ ደግሞ እራሳቸዉን ለማጥፋት እንደሞከሩ ለማዎቅ ሲሆን የጥናቱ ዉጤትም ይህን ችግር ለመፍታት የወደፊት የሆስፒታሉ አሰራር በማሻሻል እና ባለሙያዎቹም ለታካሚዎቻቸዉ የሚሰጡትን አገልግሎት በማሻሻል እና ትኩረት እንዲሰጡ ግንዛቤ ለመፍጠር በጣም ጠቃሚ ነዉ፡፡ ስለዚህ የጥናቱን አላማ ለማሣካት እና የወደፊት አሠራር ለማሻሻል የእናንተ ቀና ተሳትፎ እና ምላሽ ለጥያቄዎቹ በጣም ወሳኝ ነዉ፡፡ ለእዚህም በቅድሚያ የእናንተን ፍቃደኝነት እጠይቃለዉ፡፡ ለጥያቄዎቹ ምላሽ ለመስጠት ካልተመቸዎት አልስማማም ማለት መብትዎት ነዉ፡፡

እርስዎ በዚህ መጠይቅ ላይ የሚሰጡት መረጃ ለምርምር እና ለጥናት ከማገልገሉ ውጭ በአርሰዎ ላይ ምንም አይነት ተፅዕኖ አይኖረውም ፡፡ ሚስጥርን ከመጠበቅም አንፃር በቃለ መጠይቁ ላይ ስም አይፃፍም፡፡ ስለሆነም እርሰዎንም በዚህ ጥናት ውስጥ ለተጠየቁት መጠይቆች መልስ እንዲሰጡን በትህትና እጠይቃለሁ፡፡ ግልጽ ላልሆኑለዎት ጥያቄዎች ማብራሪያ መጠየቅ መብትዎት የተጠበቀነዉ፡፡ ስለዚህ የእርስዎ ቀና ትብብር ከላይ ያስቀመጥነውን ግብ እንድንመታ ስለሚረዳን እባክዎ ጥያቂዎችን በመመለስ ይተባበሩን፡፡

በመጨረሻም ለጥናቱ ላይ ለመሳተፍ ተስማምተዋል;

☐ አዎ ☐ አልተስማማሁም

ከተስማሙ ፊርማ__________________ ወደሚቀጥለዉ ገፅ ይለፉ

የጠያቂዉ ስም ______________________ ፊርማ________ ቀን___ /___ /______

የተቆጣጣሪ ስም ____________________ ፊርማ _________ ቀን ____/ ___/______

የታካሚዉ ካርድ ቁጥር ______________

ጥያቄዎቹ አምስት ክፍሎች አሏቸዉ፡፡

ክፍል 1፡ የተካሚዉን ማህበራዊ ፣ ስነህዝባዊ እንዲሁም ግላዊ መረጃዎችን ለማጥናት የተዘጋጀ ቃለ መጠይቅ

መመሪያ፡ የሚከተሉትን ጥያቀዎች ምርጫ ያላቸዉን በማክበብ እና ምርጫ የለላቸዉን በጥያቀዉ መሰረት በክፍት ቦታዉ ላይ ይሙሉ፡፡

ተ.ቁ	ጥያቄዎች	መልስ	ኮድ
101	እድሜዎት ስንት ነዉ?		
102	የህመምተኛዉ ጾታ	1, ወንድ 2, ሴት	
103	የጋብቻ ሁኔታ	1, ያገባ/ች 2, ያላገባ/ች 3, የፈታ/ች 4, የተለያየ/ች 5, ሚስት ሞቶበት/ባል ሞቶባት የሚኖሩ	
104	ሀይማኖትዎ ምንድን ነዉ?	1, ኦርቶዶክስ 2, ሙስሊም 3, ፕሮቴስታንት 4, ካቶሊክ 5, ሌላ ጥቀስ ______________	
105	ብሄርዎ ምንድን ነዉ?	1, ኦሮሞ 2, አማራ 3, የም 4, ዳዉሮ 5, ከፋ 6, ጉራጌ 7, ሌላ ካለ ይጥቀሱ __________	
106	የትምህርት ደረጃዎ?	1, ያልተማረ 2, ማንበብና ማፃፍ ብቻ 3.የተማሩ ከሆነ የትምህርት ደረጃዎን ይፃፉ ____________________________	
107	ስራዎ ምንድን ነዉ?	1, ሙሉ ቀን የመንግስት ተቀጣሪ 2, ስራ የለኝም 3, አርሶ አደር 4, ነጋዴ 5, የቀን ሰራ 6, ተማሪ 7, የቤት እመቤት 8, ሌላ ካለ ይጥቀሱ______________	

108	አማካይ የቤተሰብ ገቢ በብር ምን ያህል ይሆናል?	1, በወር ___________________ 2, በዓመት ___________________	
110	የሚኖሩት ከማን ጋር ነዉ?	1, ብቻየን 2, ከቤተሰብ ጋር (ከባልቤትዎ እና ልጆችዎ፣ ወላጆች, እህት፣ወንድም፣አክስት፣ አጎት) 4, መጠለያም የለኝ 5, ሌላ ካለ የጥቀሱ ______________________	

ማህበራዊ ድጋፍን የተመለከቱ ጥያቄዎች

111	ከባድ የግል ችግር ሲያጋጥምዎ በቁጥር ምን ያህል ሰዎች ከአጠገበዎ ይገኛሉ; (አንድ ብቻ ይምረጡ)	1. ምንም	
		2. 1 ወይም 2	
		3. ከ3-5	
		4. ከ 5 በላይ	
112	ሠዎች ስለ እርስዎ ምን ያህል ግድ ይሉቸዋል? (አንድ ምርጫ ብቻ ያክብቡ)	5.ብዙ	
		4. ትንሽ	
		3. እርግጠኛ አይደለሁም	
		2. በጣም ትንሽ	
		1. ምንም	
113	ከ ጎደኞችዎ ወይንም አበረው የጋራመኝታ ቤት ከሚጋሮአቸው ሠዎች ተጨባጭ እርዳታ ለማግኘት ያለዎት እድል ምን ያህል ነው? (አንድ ምርጫ ብቻ ያክብቡ)	5. በጣም ቀላል	
		4. ቀላል	
		3. መጠነኛ	
		2. ከባድ	
		1. በጣም ከባድ	

ክፍል 2፡ አደንዛዥ እፅን የተመለከቱ መጠይቆች

ተ.ቁ.	የአልኮል መጠጥን የተመለከቱ ጥያቄዎች	መልስ
201	አልኮል መጠጥ ጠጥተዉ ያዉቃሉ?	1. አዎ 2. የለም
201.1	ለጥያቄቁጥር 1 መልስዎ አዎን ከሆነ እባክዎን የሚከተሉትን ጥያቄዎች ይመልሱ?	
202	መጠጥ መጠጣት ማቆም አለብኝ ብለዉ ወስነዉ ያውቃሉ?	1. አዎ 2. የለም
203	ሰዎች መጠጥ በመጠጣትዎ በማንቁዎሸሽ አበሳጭተዎት ያውቃሉ?	1. አዎ 2. የለም

204	መጠጥ በመጠጣትዎ የጥፋተኛነት ስሜት ተሰምቶዎት ያውቃል?	1. አዎ 2. የለም
205	የጠዋት ድብርተዎን (በመጠጥ የሚመጣዉን መጫጫን) ለማስለቀቅ ጠዋት ተነስተዉ መጠጥ ያስቀድማሉ?	1. አዎ 2. የለም

ፋገርስትሮም ቴስት

ተ.ቁ.	ሲጋራን የተመለከቱ ጥያቄዎች	0	1	2	3	
206	ከእንቅልፍ እንደተነሱ በምን ያህል ጊዜ ዉስጥ ሲጋራ ያጨሳሉ	ከ60ደቂቃ በኃላ	ከ31-60 ደቂቃ	ከ6-30 ደቂቃ	በ5ደቂቃ ዉስጥ	
207	በማይጨስባቸዉ ቦታዎች ለምሳሌ ቤተክርስቲያን፣ ላይበራሪ ሳያጨሱ መቆየት ከብዶዎት ያዉቃል	የለም	አዎ			
208	የትኛዉን ሲጋራ ነዉ ማቆም የሚከብደዎት	ሁሉንም	የመጀመሪያዋን			
209	ስንት ሲጋራ በቀን ያጨሳሉ	ከ10 በታች	ከ10-20	ከ20-30	ከ31 በላ	
210	ከእንቅልፍ እንደተነሱ በተደጋጋሚ ያጨሳሉ ከሌላዉ ሰዓት በበለጠ	የለም	አዎ			
211	ታመዉ ተኝተዉም ለብዙ ጊዜ ያጨሳሉ	የለም	አዎ			

ሌሎች አደንዛዢ እፆችን የተመለከቱ መጠይቆች

212	ጫት ቅመዉ ያዉቃሉ?	1. አዎ 2. የለም	
213	ለጥያቄ ቁጥር 212 መልሰዎ አዎ ከሆነ	1, በየቀኑ 2, ከ2-3 ጊዜ በሳምንት 3, አንድ ጊዜ በሳምንት 4, ከሳምንት በበለጠ ጊዜ	
214	ለምን ያህል ጊዜ ተጠቅመዋል?	1, በወር________________ 2, በዓመት ________________	
215	እንደ ጋንጃ፣ ማሪዋና ፣ ሽሻ እና ሀሽሽ ያሉ አደንዛዥ እፅ ተጠቅመዉ የዉቃሉ?	1, አዎ 2, የለም	
216	መልሰዎ አዎ ከሆነ ለጥያቄ 203	1, በየቀኑ 2, ከ2-3 ጊዜ በሣምንት 3, አንድ ጊዜ በሣምንት 4, ሌላ ካለ ይጥቀሱ	
217	ለምን ያህል ጊዜ ተጠቅመዋል?	1, በወር________________ 2, በዓመት ________________	

ክፍለ 3፡ ስነ አእምሮን ጤናን የተመለከቱ መጠይቆች

301	ህምሙ ከጀመረዎ ምን ያህል ጊዜ ሆነዉ?	1, ወር ________ 2, በአመት ________	
302	ህመሙ ሲጀምረዎት እንዴት ነበር?	1, በቅፅበት (በሰዓታት እና በቀናት) 2, በአጭር ጊዜ (ከ 3 ወር በአነሰ ጊዜ) 3, ቀስበቀስ (ከ 3-12 ወር ጊዜ ዉስጥ) 4, ቀስበቀስ ከ12 ወር በበለጠ ጊዜ ዉስጥ	
303	የህመሙን አይነት (ካርድ ይመልቱ) ከአንድ በላይ ከሆነ ሁሉንም ይፃፉ፡፡	________	
304	ስንት ጊዜ አልጋ እየያዙ ታክመዋል?	________	
305	በቤተሰብ የአእመሮ ህመምተኛ አለ?	1, አዎ 2, የለም	
306	በቤተሰብ ዉስጥ እራሱን ለማጥፋት የሞከረ አለ?	1, አዎ 2, የለም	
307	በቤተሰብ ዉስጥ እራሱን ያጠፋ አለ?	1, አዎ 2, የለም	

ክፍል 4፡ እራስዎትን የመጉዳት ባህሪን (እራስን ለማጥፋት ማሰብ፣ ማቀድ እና መሞከር) የተመለከቱ መጠይቆች

መመሪያ፡ ትክክለኛ የነበረዎትን ባህሪ ወይም ስሜት የሚዎክለዉን አንድ አማራጭ ይምረጡ ፡፡

401	እራስዎትን ለማትፋት አስበዉ ወይም ሞክረዉ ያዉቃሉ?	1. በፍፁም የለም 2. አዎ ግን በጣም ለአጭር ጊዜ ነበር 3ሀ. አቅጄ ነበር ግን ለማጥፋት አልኩም ነበር 3ለ, አቅጄ ነበር እና በእርግጠኝነት እራሴን ላጠፋ ፈልጌ ነበር 4ሀ, እራሴን ለማጥፋት ሞክሬ ነበር ግን መሞት አልፈለኩም ነበር 4ለ, እራሴን ለማጥፋት ሞክሬ ነበር እና በእርግጠኝነት ለመሞት ነበር	

40 2	በአለፈዉ አንድ አመት ለምን ያህል ጊዜ እራስዎን ለማጥፋት አስበዉ ነበር?	1. በፍፁም የለም 2. አንደ ጊዜ 3. አልፋልፎ (ሁለት ጊዜ) 4. ሁልጊዜ (ከ3-4 ጊዜ) 5. በጣም ሁል ጊዜ (5 ጊዜ እና ከዛ በላይ)	
40 3	እራስዎትን ሊያጠፉ እንደነበር ለሰዉ ተናግረዉ ነበር?	1, በፍፁም ለም 2ሀ, አዎ አንድ ጊዜ ግን በእርግጠኝነት ለመሞከር አልፈለኩም ነበር 2ለ, አዎ አንድ ጊዜ እና በእርግጠኝነት ላጠፋ ነበር 3ሀ, አዎ ከአንድ ጊዜ በላይ ግን ላጠፋ አልፈለኩም 3ለ, አዎ ከአንድ ጊዜ በላይ እና በእርግጠኝነት ላጠፋ ፈልጌ ነበር	
404	ወደፊት እራስዎትን ለማጥፋት ያለዎት እድልዎ ምን ያህል ነዉ?	0, በፍፁም 1. ምንም እድል የለኝም 2. ያለመሆን እድሉ ከፍተኛ ነዉ 3. ሊሆን አይችልም 4. ልሞት እችላለዉ 5. ከፍተኛ ነዉ 6. በጣም ከፍተኛ ነዉ	

ክፍል 5፡ እራስዎትን ለማጥፋት የተጠቀሙበትን መሣሪያ እና ቦታ የተመለከቱ መጠይቆች፡፡

501	የት ቦታ ነበር እራስዎትን ለማጥፋት የሞከሩት? ከአንድ በላይ መልስ ካለ ይምረጡ፡፡	1, ቤት 2, ሜዳ ላይ 3, ጫካ ዉስጥ 4, ወንዝ 5, ሌላ ካለ ይጥቀሱ ________________	
502	እራስዎትን ለማጥፋት የሞከሩት በምንድን ነበር?	1, እራሴን በማነቅ	

		2, በመርዝ (ዲዲቲ) 3, ኤሌክትሪክ በመጨበጥ 4, አራሴን በመወርወር 6, በመኪና አዳጋ 7.መድሀኒት ከመጠን በላይ በመዉሰድ 8, ሌላ ካለ ይጥቀሱ ___________	
503	እራስዎትን ለማጥፋት ከሞከሩ በሃላ ምን ተሰማዎት?	1, ተበሣጨዉ (ተናደድኩ) 2, እራሴን ወቀስኩ (ተፀፀትኩኝ) 4. ምንም የተሰማኝ ነገር የለም	
504	እራስዎትን ለማጥፋት ሲሞከሩ ማን ነዉ ያተረፈዎት?	1, ቤተሰብ 2, ጉደኞቼ 3, ባለቤቴ (ሚሰቴ ወይም ባሌ) 4, ጤና ባለሙያ 5, ፈጣሪ (እግዚአብሄር ወይም አላህ) 6. ሌላ ካለ ይጥቀሱ ___________	

Annex III Questionnaire in Afan Oromo version
Yuunivarsitii Jimmaa Kolleejjii Saayinsii Fayyaa fi Wal'aansa Hawaasaa

Kutaa baruumsaa Wal'aansa Xin Sammuu

Yuunivarsitii Jimmaatti hospitaala baruumsaa kutaan baruumsaa xin sammuu ga'eesssota deddeebi'anii wal'aanaman keessaa hammam isaanitu of balleesssifuuf (of ajjeesuuf) akka yaadanii fi hammam isaanitu of balleessuf akka yaadanbaruuf gaafannoo qophaa'e. Yuunivarsitii Jimmaa 2006 A.L.I.

Waligaltee

Kabajamtoota hirmaattota qorannoo

Ani Indaalamaw Salilaw yeroo ammaa Yuunivarsitii Jimmaatti barataa Digrrii Lammaaffaa Xin Sammuu yoon ta'u baruu eebbaan hojechaan jira, Xiyyefannaan baruu kanaa yookin qorannoo kanaa hospitaala baruumsaa Yuunivarsitii Jimmaatti ga'eesssota xin sammuun deddeebi'anii wal'aanaman keessaa hammam isaanitu of balleesssifuuf (of ajjeesuuf) akka yaadanii fi hammam isaanitu of balleessuf akka yaadan baruuf yoo ta'u, bu'aan qorannoo kanaatis rakkoo kana furuuf haala hojii gara fulduraa hospitaalaa fooyyeessuu fi ogeessoonnnis tajaajila wal'aanamtootaaf kennan fooyyeessu fi xiyyeffanna akka itti kennan hubannoo uumuuf baay'ee fayyaada. Kanaafuu, kaayyoo qoranoo galmaan ga'uu fi haala hojii gara fulduraa fooyyeessuf hirmaannnani fi deebin keessan gaafileef baay'ee murteessa dha. Kanaafis durseen eyyama keessan gaafadha. Gaafileef deebii kennuun yoo isinitti mijaa'uu baate walii hin galu jechuun mirga keessani.

Ragaan isin gaafannoo kana irratti kennitan qorannaa fi qo'annaaf tajaajiluun alatti isinirratti dhiibba kamuu hin qabaatu. Gama Icciitii eegutinis gaafannoo irratti maqaan hin barraa'u. Waan ta'eefis isinis gaaffii gaafanoo kana keessatti gafatamtaniif deebii akka naaf kennitaniif kabajaanaan gaafadha. Gaaffilee ifa hin taaneef ibsa gaafachuun mirgi keessan kan eeggame. Kanaafuu hirmaannan keessan kaayyoo kana oliiti galmaan ga'uuf waan nu gargaaruuf maaloo gaaffilee deebisuun nu gargaaraa.

Dhumma irrattis qo'annaa irratti hirmaachuuf walii galtanii?

☐ Eyyen ☐ Walii hin galle

Yoo walii galtan gara fuula itti aanutti darbaa

____

Maqaa gaafataa ____________________ Mallaatto ____________ Guyyaa ____/ ____/______

Maqaa Hordofaa __________________ Mallattoo _____________Guyyaa ___/_____/_______

Lakk. Kaardii Wal’aanamaa _______________

Gaafileen Kutaa shan qabu

Kutaa 1: Hawaasummaa, ummatumma akksaumas ragaalee dhuunfaa wal’aanamaa qorachuuf jecha gaafanoo qophaa’e.

Qajeelcha: Gaafileen armaan gadii filannoo kan qaban irra marsuuni fi kan filannoo hin qabne haala gaafiitiin iddoo duwaa irratti guutaa.

T.L	Gaafilee	Deebii	Koodii
101	Umriin keessan meeqa?	_______________	
102	Saala Wal’aanamaa	1. Dhiira 2. Dhalaa	
103	Haala Fuudha fi Heerumaa	1. Kan fuudhe/ kan heerumte 2. Kan hin fuune/kan hin heerumne 3. Kan hike/kan hiikte 4. Kan adda bahe/ kan adda baate 5. Kan haatii manaa jala duute/ kan abbaan manaa jalaa du’e	
104	Amantiinn keessan maali?	1. Ortodoksii 2. Islaaama/ Musliima 3. Pirotestaantii 4. Katolikii 5. Kan biraa eeraa ____________	
105	Sabni keessan maali	1. Oromoo 2. Amaaraa 3. Yeem 4. Daawuroo 5. Kafaa 6. Guraagee 7. Kan biraa yoo jiraa eeraa _______	
106	Sadarkaan baruumsa keessanii	1. Kan hin baranne 2. Kan baratan yoo ta’e sadarkaa barumsa keessanii	

		barreessaa_______________	
107	Hojiin keessan maali?	1. Qacaramaa guyyaa guutuu 2. Hojiin hin qabu 3. Qote bulaa 4. Daldalaa 5. Hojii guyyaa 6. Barataa 7. Xurataa 8. Giifii manaa 9. Kan biraa yoo jiraate eeraa ___________	
108	Giddu gala galii maatii qarshiin hammam ni ta'a?	1. Ji'aan 2. Waggaatti	
110	Kan jiraattan eenyu waliin?	1. Kophaa 2. Maatii waliin (haadha manaa fi ijoolee, warra, obboleettii, obboleessa, adaadaa, eessuma waliin) 3. Mana hin qabju 4. Kan bira yoo jiraatee eeraa _______________	

Gaafilee Deeggarsa Hawaasummaa ilaallatan

111	Rakkoon dhuunfaa yoo isin muudate lakkoofsan namni hammamii isin biratti argama (tokko qofa filadhaa)	1. Namni kamuu hin argamu	
		2. 1 yookin 2	
		3. Nama 3-5	
		4. 5 ol	
112	Namni hammamii waa'ee keessan dhiiphata (filannoo tokko qofa)	5.Baay'ee	
		4.Muraasa	
		3. Hin yaadadhu	
		2.Baay'ee muraasa	

		1. Homuu	
113	Hiriyoota keessan irraa yookin kan siree waliin fayyadamtan irraa carraan gargaarsa argachuu hammami? (filannoo tokko qofa itti marsaa)	5.Baay'ee salphaa	
		4.Salphaa	
		3.Giddugaleessa	
		2.Cimaa	
		1.Baay'ee cimaa	

Kutaa 2: Gaafilee baala mataa hadoochan ilaalatan

T.L	Gaafilee dhugaatii alkoolii ilaallatan	Deebiii
201	Dhugaatii alkoolii dhuganii beekuu?	1. Eeyyen 2. Hin beeku
201.1	Gaafii lakkoofsa tokkoof deebiin keessan yoo eeyyen ta'e maaloo deebii kanaa gadii deebisaa	
202	Dhugaatii dhuguu dhiisuu/dhaabun qaba jedhanii murteessanii beekuu?	1. Eyyen 2. Hin beeku
203	Dhugaatii dhuguu keessanii namoonni gadi sin qabuun isin aarsanii beekuu?	1. Eeyyen 2. Hin beekan
204	Dhugaatii dhuguun miirri balleessaa ta'uu keessan isinitti dhaga'amee beekaa?	1. Eeyyen 2. Hin beeku
205	Burjaaji'ina (Dibirti) (of jibbina dhugaatin dhufu) ofirraa balleessuf ganamaan ka'anii dhugaatii ni dursuu?	1. Eyyen 2. Hin dursu

Faagersitiroom teesti

T.L	Gaafilee Tamboo/ Sijaaraa illallatan	0	1	2	3	
206	Akka hirribaa ka'aniin yeroo hammamii keessatti tamboo xuuxuu?	Daqiiqaa 60 boooda	Daqiiqaa 31-60	Daqiiqaa 6-30	Daqiiqaa 5 keessatti	

207	Bakkee itti tamboo hin xuuxne fakkeenyaf bataskaana, mana kitaabaa osoo hin xuuxin turuun itti ulfaatee beekaa?	Hin beeku	Eeyeen			
208	Tamboo /Sigaaraa isa kam dhaabuun/ dhiisun isinitti ulfaate	hundumaa	Kan duraa			
209	Guyyaatti Tamboo/ sigaaraa meeqa xuuxu?	10 gadii	10-20	20-30	**31 ol**	
210	Yeroo kaawwan irra akka hirriba ka'aniin amma amma ni xuuxuu?	Miti	Eeyyen			
211	Dhukkubsataniis ciisanii yeroo dheeraf ni xuuxuu?	Miti	Eeyyen			

Gaafilee Baaloota hoodachan kan biraa ilallatan

212	Jimma qama'anii beekuu	1. Eeyyen 2. Miti	
213	Gaaffii lakk. 212f deebin keessan yoo eeyyen yoo ta'e	1. Guyyaa guyyaan 2. Torbanitti 2-3 3. Torbanitti yeroo tokko 4. Yeroo troban caalu	
214	Yeroo hammamiif fayyadamanii jiruu?	1. Ji'aan ___________ 2. Waggaatti _________	
215	Baalota hadoochan Kan akka gaanjaa, maariwaanaa, shishaa fi hashish fayyadamanii beeku?	1. Eeyyen 2. Miti	
216	Gaaffi 215f deebin keessan yoo eeyyen ta'e	1. Guyyaa guyyaan 2. Torbanitti 2-3 3. Torbanitti yeroo tokko 4. Kan biraa yoo jiraate eeraa ______	
217	Yeroo hammamiif fayyaadamanii jiru?	1. Ji'aa _________ 2. Waggaatti ________	

Kutaa 3: Gaafannoo Fayyaa Xin sammuu ilaallatan

301	Dhukkubichi erga eegalee yeroo hammamii ta'ee; ji'aan yookin waggaan?	1. Ji'aan ________ 2. Waggaan ________	
302	Dhukkubichi akkamitti isin eegale?	1. Akkatasaa/ yeroo gabaabaa keessatti (sa'aatiwwani fi guyyoota)	
303	Gosa dhukkubaa (Kaardii ilaalaa) yoo tokkoo ol ta'e hundumaa barreessaa	________________________	
304	Yeroo meeqaf siree qabatanii wal'aanamii jiruu?	________________________	
305	Maatii keessaa dhukkubsataan xin sammuu jiraa?	1. Eeyyen 2. Hin jiru	
306	Maatii keessaa kan of ajjeesuuf yaale jiraa?	1. Eeyyen 2. Hin jiru	
307	Maatii keessaa kan of ajjeese jiraa?	1. Eeyyen 2. Hin jiru	

Kutaa 4: Gaafannoo Amala of hubuu (Of ajjeesuf yaaduu; karooruu fi yaaluu) ilaallatan

Qajeelcha: Amala yookin miira (Simet) sirri qabdan kan bakkaa bu'u filannoo tokko filadhaa

401	Of ajjeesuuf yaadanii yookin yaalanii beekuu?	1. Gonkumaa hin beeku 2. Eeyyen garuu baay'ee yeroo gabaabaaf ture 3.a. Nan yaada ture garuu of ajjjeesuuf hin karoorre 3.b. Karooren ture dhuguma of ajjeesufan barbaaden ture 4.a. Of ajjeesuf yaalen ture garuu du'uu hin barbaannee ture 4.b. Of ajjeesuf yaalen ture dhugumatti du'uufan ture	

402	Bara tokkicha darbe yeroo meeqaf of ajjeesuuf yaadanii ture?	1. Gonkumaa hin jiru 2. Yeroo tokko 3. Darbee darbee (yeroo lama) 4. Yeroo mara (yeroo 3-4) 5. Baay'ee yeroo mara (yeroo 5 fi ol)	
403	Of ajjeesuuf akka ta'e namatti himanii turee?	1. Gonkumaa hin turre 2.a. Eeyyen yeroo tokko garuu yaaluf hin barbaanne ture 2.b. Eeyyen yeroo tokko dhugumatti of ajjeesufan ture 3.a. Eeyyen yeroo tokko ol of ajjeesu hin barbaanne ture 3.b. Eeyyen yeroo tokkoo ol dhumatti of ajjeessu barbaaden ture	
404	Of ajjeesuf yeroo yaaltan carraan du'uuf qabdan hammam ture?	0. Gonkumaa hin jiru 1. Carraann du'uu koo baay'ee gad aanaadha 2. Carraa du'uu hin qabu ture 3. Carraann du'uu koo salphaa ture 4. Carraan du'uu koo ol'aanaa ture 5. Carraan du'uu koo baay'ee ol'aanaa ture	

Kutaa 5: Gaafilee of balleessuf/ of ajjeesuf meeshaa fi iddo itti fayyadaman ilaallatan

501	Bakka kamitti ture of ajjeesuf kan yaalan? Deebii tokkoo ol yoo jiraate filadhaa	1. Mana 2. Dirree irratti 3. Bosona keessatti 4. Laga 5. Mana baruumsaa 6. Mana wal'aansaa **7.** Kan biraa yoo jiraate eeraa ____	
502	Of ajjeessuf kan yaalan maalin ture?	1. Of hudhuun 2. Qorichaan (DDT) 3. Elektirikii qabachuun 4. Of darbachuu/ of gadhiisuun	

		5. Rasaasaan 6. Balaa konkolaataan 7. Kan biraa yoo jiraate eeraa ______	
503	Erga of ajjeesuf yaalanii booda maaltu isinitti dhaga'ame?	1. Nan aare (tebesachew) 2. Nan gaabbe 3. Wanti natty dhaga'ame hin jiru	
504	Of ajjeesuuf yoo yaalan eenyuutu isin hanbise?	1. Maatii 2. Hiriyoota koo 3. Haadha manaa / abbaa manaa koo 4. Ogeessa fayyaa 5. Uumaa (Waqayyoo/ Allaah) 6. Kan biraa yoo jiraate eeraa ____	

DECLARATION

ASSURANCE OF PRINCIPAL INVESTIGATOR

The undersigned agrees to accept responsibility for the scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and conditions of the Faculty of Public Health in effect at the time of grant is forwarded as the result of this application.

Name of the student: ____

Date.____________________ Signature _________________

APPROVAL OF THE FIRST ADVISOR

Name of the first advisor:_________________________________

Date.____________________ Signature _________________

APPROVAL OF THE SECOND ADVISOR

Name of second advisor:____

Date.__________________ Signature._________________________