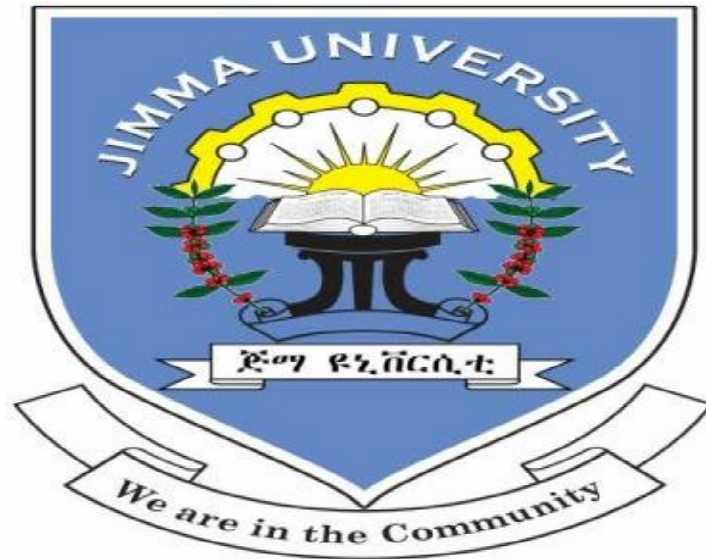


TOBACCO DEPENDENCE AND ASSOCIATED FACTORS AMONG  
PSYCHIATRIC PATIENTS ATTENDING SERVICES AT JIMMA  
UNIVERSITY TEACHING HOSPITAL, SOUTH WEST ETHIOPIA



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JIMMA, ETHIOPIA

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## **Abstract**

**Background:** Tobacco smoking is health care issue in developed as well as in developing countries. Research showed that, tobacco smoking among people with psychiatric disorders is significantly higher than in the general population. Tobacco smoking has negative effects on physical, mental and the financial well-being of people with mental health problems. However, there are few studies done on tobacco dependence and associated factors among psychiatric patients in sub-Saharan African countries including Ethiopia.

**Objective:** To assess the prevalence of tobacco dependence and associated factors among psychiatric patients attending services at Jimma University Teaching Hospital.

**Method:** Across-sectional study was used among psychiatric patients. Data was collected by interviewing 305 male and 117 female psychiatric patients who are attending service at Jimma University Teaching Hospital psychiatric clinic. The Fagerstrom Test for Nicotine Dependence (FTND) was used to assess tobacco dependence. Also, we have used CAGE to assess alcohol use disorders. After double entry verification using Epi-Data version 3.1, data was exported to and analyzed using SPSS version 20 for windows. The association between dependent and independent variables was assessed by using bivariate and multivariate logistic regression. Variables with p-value less than 0.05 in the multivariate logistic regression were considered as independent predictors of tobacco dependence.

**Results:** The general prevalence of current tobacco dependence among the study participants were 18.5%. Of this, 10.7%, 5.5% and 2.4% of them had moderate, high and very high level of tobacco dependence, respectively. All tobacco dependent patients were males. In multivariate logistic regression analysis it was found that, less attending a place of worship, high school education, alcohol use disorder, daily khat chewing, having friends who smoke tobacco and being diagnosed as schizophrenia were positively associated with tobacco dependence.

**Conclusion:** High prevalence of tobacco dependence was found among schizophrenic patients followed by patients with bipolar disorders. Therefore, psychotherapy and pharmacotherapy is crucial to reduce tobacco dependence and tobacco related medical illness.

**Key words:** Tobacco dependence, psychiatric patients, Ethiopia.

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## **Abbreviations/acronyms/**

ASH      Action on Smoking and Health

AUDs     Alcohol Use Disorders

CAGE     Cut down Annoyed Guilty Eye opener

FTND     Fagerstrom Test for Nicotine Dependence

JUTH     Jimma University Teaching Hospital

WHO      World Health Organization

## CHAPTER ONE: INTRODUCTION

### 1.1. Background

The globalization of tobacco smoking begun more than 500 years ago [1]. However, the public health response to the death, disease, and economic disruption that it has caused is fewer than 50 years old [1]. Low and middle income countries are the target of the multinational tobacco industry [1]. Nicotine which is found in tobacco has potential to cause tobacco dependence within a short period of time when people smokes regularly [2]. Tobacco contains around 4000 different chemicals and some of them are extremely toxic. Also it has 43 types of carcinogenic chemicals that can cause cancers [2]. Smoking tobacco accounts for 90% of lung cancer and 30% of all deaths from cancer are attributed to smoking tobacco [2].

Tobacco use is the leading cause of preventable illness and death in the United States [3]. It causes cancer as well as chronic lung disease such as emphysema, bronchitis, heart disease, and pregnancy related problems [3]. Tobacco smoking put a heavy burden on health care issue in developed as well as in developing countries [4].

Tobacco smoking among people with psychiatric disorders is significantly higher than that of the general population [5, 6] . People with psychiatric disorders smoke more heavily, have higher nicotine dependence, experiences more withdrawal symptoms and have lower rates of quitting smoking than in the general population [6]. Tobacco smoking has negative effects on physical, mental and the financial well-being for people with mental health problems [7]. Also, smoking tobacco can worsen psychotic symptoms and affect the treatment with antipsychotic medication and contribute to relapse [7]. Nicotine which is found in tobacco is addictive and can cause increase the activity of liver enzyme cytochrome P450, induce the enzyme Cytochrome P1A2 (CYP1A2), which are responsible for metabolizing many drugs [7]. So, cigarette smoking induces the enzyme Cytochrome P1A2 (CYP1A2) that results in fast clearance of medication from the body, reducing serum drug levels and decreasing efficacy [7].

## **1.2. Statement of the problem**

According to world health organization (WHO) report in 2013 tobacco kills nearly 6 million people worldwide each year [8]. More than five million of those deaths are the result of direct tobacco use and more than 600, 000 are the result of non-smokers being exposed to second-hand smoke [8]. Approximately, one person dies every six seconds due to tobacco smoking [8]. It was accounting for one in 10 adult deaths [8]. Unless urgent action is taken, the number of tobacco related deaths will rise to around eight million people by 2030 [8]. More than 80% of those deaths will be in low- and middle-income countries [8].

WHO report in 1995 also showed that, in the developing countries, tobacco smoking increased dramatically since 1950 tobacco smoking is associated with morbidity and mortality [9]. Between 2010 and 2050 tobacco smoking was estimated to kill 400 million adults all over the world [10]. However, the number will rise unless current smokers, most of who are living in low and middle –income countries, stop smoking before middle age [10].

WHO report in 2008 also showed that, tobacco epidemic is shifting towards the developing world, where 80% of tobacco-related deaths will occur within a few decades [11]. Action on smoking and health (ASH) reported that, there is strong association between smoking and mental health disorders [12]. According to ASH 2011 report, the prevalence of smoking among patients with depression and anxiety ranged from 40%-50%. However, among patients with schizophrenia it was more than 70% in the same year [12]. People with psychiatric disorders had increased level of tobacco dependence [12].

In the United States tobacco smoking causes approximately 440,000 premature deaths and 157 billion US\$ annual health-related economic losses during 1995-1999 [13]. Tobacco smoking causes 41,632 to 46,656 deaths in South Africa during 2007[14]. It was the third leading cause of death in this country next to sexual transmitted disease and high blood pressure (14). Out of this death 34,108 were men and 10,306 were women [14].

According to the Atlas, four African countries, Mozambique, Zambia, Mali, and Ghana are among the top five countries with the greatest increase in tobacco production in the last decade [15]. In Africa and Middle East tobacco consumption was increased by 57% during 1990-2009

[15]. In sub-Saharan African countries including Ethiopia, there are few studies done on tobacco dependence specifically among psychiatric patients. However, tobacco related diseases are affecting the life of patients with mental illness. Therefore, this study is aimed at assessing tobacco dependence and its associated factors among psychiatric patients.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1. Prevalence of tobacco dependence**

A study done in Iran inpatient psychiatric services showed that, the prevalence of high nicotine dependence was 64.4%. The prevalence of nicotine dependence among men and women was 64.6% and 62.7%, respectively [16]. Patients with depression were also found to smoke cigarette 54% times less likely than schizophrenic patients [16]. Another study done in Kerman Iran among psychiatric inpatients found that, the prevalence of nicotine dependence was 28.75% [17]. Similarly, a study conducted in Canadian inpatient psychiatry service showed that, the prevalence of nicotine dependence was 45.2% [6]. However, the prevalence of current cigarette smokers and former smokers was 55% and 17.5%, respectively [6].

A hospital based study done in Sri Lanka among out patient with schizophrenia showed that, the prevalence of low to moderate nicotine dependence was 76.6%. However, the prevalence of high nicotine dependence was 23.3% [18]. Another hospital based study done in Brazil outpatient psychiatric clinic found that, prevalence of nicotine dependence to be 59% [19]. Also, average daily cigarette consumption was 11 to 20 pieces [19]. Similarly, a study done in Brazil psychiatric in patients showed that, 13.5%, 29.2% and 23.9% patients had medium, high and very high degree of nicotine dependence, respectively [20]. The prevalence of very high level of nicotine dependence among patients with higher education was 50%. However, it was 35.1% and 28.6% among patients who were unemployed and single, respectively [20].

A study done in India among psychiatric in patients showed that, 36% reported current tobacco use; 65% of them reported moderate to severe nicotine dependence [21]. The prevalence of nicotine dependence among men and women was 34% and 7% respectively [21]. However, prevalence of tobacco use among men and women was 53% and 9% respectively [21]. Also, the prevalence of nicotine dependence among educational level less than high school diploma, high school diploma and college/University was 30%, 25% and 19% respectively [21]. However, prevalence of tobacco use among educational level less than high school diploma, high school diploma and college/University was 41%, 38% and 31% respectively [21]. Similar, study done in

Saudi Arabia among patients attending psychiatric services at outpatient department showed that, the prevalence of current cigarette smoking was 57.8% [22].

A community based study done in Butajira Ethiopia found that, the prevalence of ever cigarette smoking among men and woman was 15.4% and 0.2%, respectively. However, the prevalence of current cigarette smoking among men and women was 11.8% and 0.2%, respectively [23]. Similar study done in Kersa Town eastern Ethiopia found that, the prevalence of current tobacco smoking was 28% [24]. Similarly, a study done in Addis Ababa Ethiopia showed that, the prevalence of current cigarette smoking among men and women was 30% and less than 1%, respectively [25].

## **2.2. Tobacco dependence and co-morbidities**

A hospital based study done in Hungary outpatient psychiatric clinic showed that, the life time prevalence of cigarette smoking among patients with unipolar depression was 70% [26]. It was also 70 % among patients with bipolar I and II disorders [26]. However, among patients with panic disorder it was 48%. The life time prevalence of cigarette smoking among patients with schizophrenia and schizoaffective was 70% and 83%, respectively [26]. In this study, current prevalence of tobacco smoking among patients with panic disorder, schizophrenia, unipolar depression, bipolar I and II disorders and schizoaffective was 33%, 54%, 53%, 60% and 69%, respectively [26].

A hospital based study done in Brazil found that, the prevalence of nicotine dependence among patients with mood disorders, personality disorder and schizophrenia was 57.7%, 58.8% and 60.6%, respectively had high or very high degree of nicotine dependence [20]. Similar study done in Kerman Iran among psychiatric inpatients found that, the prevalence of nicotine dependence among patients with bipolar disorder, schizophrenia, major depressive disorder and post- traumatic stress disorder was 22.9%, 30.9%, 31.5% and 73.4%, respectively [17]. A hospital based study done in India showed that, the prevalence of nicotine dependence among patients with depression, schizophrenia and bipolar disorder was 17%, 23% and 29%, respectively [21]. However, the prevalence of tobacco use among patients with depression, schizophrenia and bipolar disorder was 29%, 33% 46%, respectively [21].

### **2.3. Factors associated with tobacco dependence**

A hospital based study done in Hungary outpatient psychiatric clinic showed that; current and lifetime cigarette smoking were significantly associated with unipolar depression, bipolar disorder, schizophrenia and schizoaffective disorder. However, being diagnosed as panic disorder without major depression was not associated with current and lifetime cigarette smoking [26]. A study done in India also found that, nicotine dependence was associated with male gender, diagnosis of bipolar disorder, alcohol use disorder, college/ University education and older age [21].

A hospital based study done in Brazil out patients psychiatric clinic indicated that, smoking cigarette was significantly higher among patients with social anxiety [19]. Similar, study done in Brazil found that, nicotine dependence was associated with schizophrenia, mood and personality disorders, older age and somatic co morbidities [20].

A study done in Saudi Arabia among patients attending psychiatric services at outpatient department indicated that, cigarette smoking was significantly associated with unemployment and low education [22]. Community based study done in Butajira Ethiopia revealed that, ever cigarette smoking was significantly associated with older age, male gender, Muslim and formal employment [23].

## 2.4. Conceptual frame work

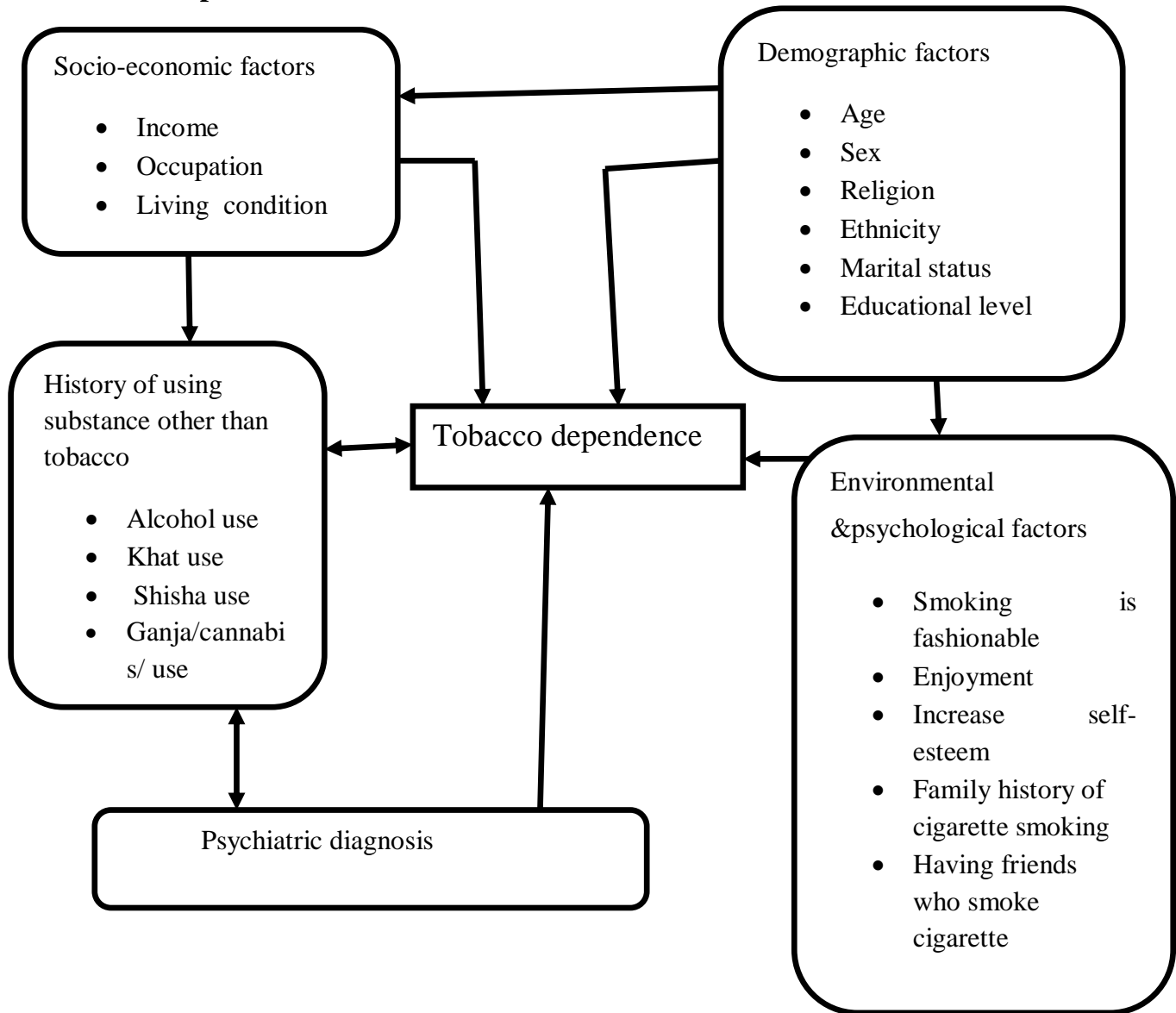


Figure 1: Conceptual framework: Tobacco dependence and associated factors among psychiatric patients attending services at Jimma University Teaching Hospital during 2014.



## **2.5. Significance of the study**

People with mental illness all over the world have an increased risk of tobacco dependence. Tobacco is one of a public health risk. Tobacco dependence results in abundant problems to the individual and society. Additionally, tobacco users are prescribed higher antipsychotic medication due to smoking which increases the metabolism of antipsychotic medication. So, smoking can affect the prognosis of mental illness. Most researchers found tobacco use has been associated with health related problems such as cancer as well as chronic lung disease and still birth, spontaneous abortion, low birth weight, premature birth or sudden infant death syndrome and abnormal sperm cells and impotence in men. Also, tobacco smoking interferes with the immune system of the body and predisposes to the development of infections particularly respiratory infections.

Therefore, screening tobacco dependence and early prevention and management among psychiatric patients become very important to reduce morbidity and mortality from tobacco use. However, in sub-Saharan African countries including Ethiopia, there are few studies done on tobacco dependence specifically among psychiatry patients. Tobacco smoking, consumption and production are wide spread and in recent years a number of tobacco producing industries has been increased in the developing countries. The clinicians do not routinely screen tobacco dependence among psychiatric patients. This study estimated the prevalence of tobacco dependence and identifies factors associated with it among psychiatric out patients.

Therefore the findings of this study will be useful for policy makers and health planners to include management of tobacco dependence in their policy and plan. Additionally, it will be base line data for researchers who are interested to do farther research regarding tobacco dependence and its impact on psychiatric patients. Also, the findings of this study will be useful for clinician to screen tobacco dependence routinely for interventions in psychiatric settings.

## **CHAPTER THREE: OBJECTIVE**

### **3.1. General objective**

To assess the prevalence of tobacco dependence and associated factors among psychiatric patients attending services at Jimma University Teaching Hospital.

### **3.2. Specific objective**

To estimate the prevalence of tobacco dependence among psychiatric patients attending services at Jimma University Teaching Hospital.

To identify the association between tobacco dependence and other substance use among psychiatric patients attending services at Jimma University Teaching Hospital.

To identify factors associated with tobacco dependence among psychiatric patients attending services at Jimma University Teaching Hospital.

## **CHAPTER FOUR: METHODS AND MATERIALS**

### **4.1. Study area and period**

The study was conducted in Jimma University Teaching Hospital (JUTH) which is located in the Southwest part of Ethiopia 352km far from Addis Ababa [27]. JUTH is one of the oldest public hospitals in the country. It was established in 1937. The hospital provides specialized health services by its 9 medical and other clinical and diagnostic departments for inpatient and outpatient services. Psychiatry clinic was established in 1988. In Ethiopia JUTH is one of the hospitals that have psychiatric in patients' service next to Amanuel Mental Health Specialized Hospital and there are 26 beds for inpatients service. The research was conducted in October 26- November 24, 2014.

### **4.2. Study design**

A cross-sectional study design was used

### **4.3. Population**

#### **4.3.1. Source of population**

All registered patients who were attending service rendered at JUTH psychiatry clinic during 2014

#### **4.3.2. Study population**

A sample of patients who fulfill the inclusion criteria and attending treatment at outpatient department in JUTH psychiatric clinic during the data collection period

### **4.4. Inclusion and Exclusion criteria**

#### **4.4.1. Inclusion criteria**

All adult psychiatry patients who were attending out patient service at JUTH psychiatry clinic during study period.

#### 4.4.2. Exclusion criteria

Patients with catatonia, hearing problem, communication problem and agitated patients during interview were excluded the study.

#### 4.5. Sample size determination

There is no published study addressing tobacco dependence in psychiatric hospital out patient's treatment settings. So, sample size was calculated using a formula for estimation of single population proportion formula by assuming 50% tobacco dependence conservative estimate to obtain a large sample size at 95% certainty and a maximum discrepancy of 5% between the sample and the underline population.

$$n = \frac{Z^2 p(1-p)}{d^2} \quad n(\text{sample size}) = \frac{(1.96)^2 0.5(1-0.5)}{(0.05)^2}$$

Where n=sample size

P=Assume proportion (50% tobacco dependence)

Z=standard normal distribution curve value for the 95% confidence interval (1.96)

D= the margin of error is accept error

So the sample size calculated

$$n = \frac{(1.96)^2 \times 0.5 \times (1-0.5)}{(0.05)^2} = 384$$

The total population is unpredictable b/c it is difficult to estimate new patients weather they are less than or greater than ten thousands.

By adding 10% of non-response rate, the final sample = 38.4+384=422

The total sample size was **422**.

## **4.6. Sampling procedure**

All out patients who fulfill the inclusion criteria coming to JUTH psychiatric clinic were selected consecutively until the required sample size was met.

## **4.7. Study variables**

### **4.7.1. Dependent variable**

Tobacco dependence

### **4.7.2. Independent variables**

#### **Socio - demographic variable**

Age, sex, religion

Ethnicity

Marital status

Family monthly income

Educational level

Occupation

Living condition

#### **History of using substance other than cigarette smoking**

Alcohol use

Khat use, shisha, ganja /cannabis/ use

#### **Environmental and psychological factors**

Smoking is fashionable

Smoking can increase self-esteem

Smoking can help for enjoyment

Family history of cigarette smoking

Having friends who smoke cigarette

#### **Psychiatric diagnosis**

#### **4.8. Data collection instrument and measures**

The data were collected by face to face interview using a structured questionnaire. The questionnaire was developed/ adopted/ after reviewing studies first in English language. Then it was translated into Amharic and Afan Oromo language by language department and native speakers. Finally, back translated into English language to check its consistency. The questionnaire has four parts: part I; socio-demographic characteristics to assess patients background information, part II; Cut down Annoyed Guilty Eye opener (CAGE) to screen for alcohol use disorders, part III; Fagerstrom Test for Nicotine Dependence (FTND) to screen for tobacco dependence, part IV; questions on use of other substances, environmental and psychological factor and family history of cigarette smoking. Tobacco dependence was assessed using the Fagerstrom Test for Nicotine Dependence (FTND). FTND has 6 items that provides a total score ranging from 0-10 to measure nicotine dependence [28]. Fagerstrom Test for Nicotine Dependence also has good test –retest reliability and validity in population of smokers with psychiatric disorders [29]. At cut off score FTND of  $\geq 5$  has sensitivity and specificity of 0.75 and 0.80, respectively [30]. Alcohol use disorder was assessed using Cut down Annoyed Guilty Eye opener (CAGE) which has 4 items. It is short and easily applied in clinical practice. Sensitivity and specificity of CAGE at cut of score  $\geq 2$ , was 0.71 and 0.90, respectively [31].

#### **4.9. Data collection procedures, data collectors selection and training**

Data were collected using a structured questionnaire by interviewing all patients who were attending service at JUTH psychiatry clinic. Pre-test was conducted on 5% of the total sample size before starting the main study to identify potential problems in the data collection tools and to check the performance of the data collectors. Pre- test data were not included in the analysis of the main study. Five psychiatry nurses participated in data collection. One supervisor who had BSc psychiatry and the principal investigator participated in the supervision of data collection. Before data collection, training was given for one day data collectors and supervisor. The objective of the study and how to maintain confidentiality was discussed. The questioner was discussed in detail going through every question with clarification for each doubt. Data were checked for completeness on daily basis.

#### **4.10. Data quality management**

Data collectors and supervisor were trained on data collection procedure, methods, and how to handle. The objective of the study was disclosed to each participant. Informed consent was obtained from each study participants. Regular supervision was carried out by supervisor and principal investigator to insure that all necessary data are properly collected. Each day during the data collection, the filled questionnaire was checked for completeness and consistency. Data were entered to Epi-Data version 3.1 to reduce error that will occur during data entry. After the end of data entry the data were reentered into Epi-Data in order to identify data consistency. The data were exported to SPSS version 20 for windows after the consistency of the data were identified.

#### **4.11. Data processing and analysis.**

The collected data were edited, cleaned, coded and entered into computer using Epi-Data entry soft ware version 3.1. After double entry verification, data were exported to SPSS version 20 for windows. Descriptive statistics such as frequency, percentage, mean and standard deviation was used for describing tobacco dependence. Dependent variable and independent variables were entered to bivariate logistic regression one by one in order to identify association between dependent and independent variables. All variables associated with tobacco dependence in bivariate logistic regression and with p- value  $<0.25$  in were entered together in to multivariable logistic regression by default to control potential confounders. Variables with p-value  $<0.05$  in the multivariable logistic regression were considered as independent predictors of tobacco dependence.

#### **4.12. Ethical considerations**

Ethical clearance was obtained from Jimma University, Collage of Public Health and Medical science. Informed consent was obtained from each study participants before the interview. Participants were reassured that their name was not stated. Data confidentiality was kept at all stage of data processing. Patients with tobacco dependence were referred to psychologists for motivational interview.

#### **4.13. Dissemination plan and target audience**

The findings of the study will be submitted to Jimma University, College of Public Health and Medical Sciences. Copies of the paper will be submitted to psychiatry department, JUTH, and other relevant stake holders. The research paper will be presented on, professional conferences and trainings. Finally, attempts will be made to publish the work on peer reviewed journal to make accessible to all individuals.

#### **4.14. Operational definitions**

**Fagerstrom test for nicotine dependence (FTND):** has two multiple choose items scored from 0-3, one multiple choose item scored from 0-1 and three yes/no items scored 0-1[28].

- \* Item one FTND score ranging from 0-3, which has multiple choose item scored from 0 (after 60 minutes), 1(31 – 60 minutes), 2 (6-30 minutes) and 3 (within 5 minutes).
- \* Item four FTND score ranging from 0-3, which has multiple choose item scored from 0 (10 or less), 1(11-20), 2 (21-30) and 3 (31 or more).
- \* Item three FTND score ranging from 0-1, which has multiple choose item scored from 0 (all others) and 1(the first one in the morning).
- \* Item two, five and six FTND score ranging from 0-1, which has the three yes/no items are scored 0 (no) and 1 (yes).

**Tobacco dependence:** Total FTND score  $\geq 5$ [30]. Similarly, by computed FTND score based on cut scores.

- \* **Moderate nicotine dependence:** Total FTND score 5 [28].
- \* **High nicotine dependence:** Total FTND score 6-7 [28].
- \* **Very high nicotine dependence:** Total FTND score 8-10 [28].

**Alcohol use disorders:** Total CAGE  $\geq 2$ [31].

**Co morbidity:** is to indicate cases in which a patient receives both a psychiatric and a general medical diagnosis (e.g. schizophrenia and hypertension).

**Living condition:** is defined as patient who is living alone, living with family, living with relative, living with non- relative persons.



**Income:** Family monthly income divided into four categories by using quartiles such as: less than or equal to 500 ETH Birr, 501-1000 ETH Birr, 1001-2000 ETH Birr and greater than 2000 ETH Birr.

## CHAPTER FIVE: RESULTS

### 5.1. Participants characteristics

A total of 422 patients approached to participate in this study. All of the study participants agreed to participate in the study with 100% of response rate. Out of the total study participants, 27.7% (n=117) and 72.3% (n=305) of them were females and males respectively. The mean age of the study participant was  $31.96 \pm SD 9.89$  years. Majority of the study participants (71.6%, n=302) were Oromo ethnicity and Islam religion followers (62.8 %, n=265). Of this, the total study participants, 36.3% (n=153) and 56.4 % (n =238) of them were married and single respectively. Thirty five percent (n=101) of the study participants had attended primary school followed by high school (34.4%, n=99). Thirty percent (n=128) of the study participants had family monthly income of 500 ETH Birr followed by 501-1000 ETH Birr (28.4%, n=120). The rest 22.7% (n=100) and 17.5 % ( n=74) were family monthly income of 1001-2000 ETH Birr and more than 2000 ETH Birr respectively. Of this, the total study participants, 24.9% (n=105) of them were unemployed followed by farmer (19.9%, n=84). Almost all (90.8%, n=383) of the study participants were living with their family. Majority of the study participants (92.4%, n=390) had at least two hospital visits (Table 1).

Table 1: Socio-demographic characteristics of psychiatric patients attending service at Jimma University Teaching Hospital, South west Ethiopia 2014 (n=422).

Variables		Frequency (%)
Sex	Male	305(72.3)
	Female	117(27.7)
Age	18-28	181(42.9)
	29-38	156(37.0)
	39-48	47(11.1)
	>=49	38(9.0)
Ethnicity	Oromo	302(71.6)
	Amhara	53(12.6)
	Guragie	24(5.7)
	Dawuro	17(4.0)
	Yem	10(2.4)
	Others	16(3.8)
Marital status	Married	153(36.3)
	Single	238(56.4)
	Divorced	20(4.7)
	Separated	6(1.4)
	Widowed	5(1.2)
Religion	Orthodox	112(26.5)
	Muslim	265(62.8)
	Protestant	41(9.7)
	Catholic	2(0.5)
	Jehovah witness	2(0.5)
Frequency of attending of worship place	Never	39(9.2)
	Some times	226(53.6)
	Daily	157(37.2)
Education	Illiterate	74(17.5)
	Read and write only	60(14.2)
	Primary	101(35.1)
	Secondary/ high school /	99(34.4)
	Tertiary	88(30.6)
Occupation	Employed	71(16.8)
	Unemployed	105(24.9)
	Farmer	84(19.9)
	Merchant	44(10.4)
	Daily-laborer	30(7.1)
	Student	43(10.2)
	House-wife	37(8.8)
	Others	8(1.9)
Living condition	Living alone	18(4.3)
	Living with family	383(90.8)
	Living with relative	7(1.7)
	Others	14(3.3)
Frequency of hospital visit	First visits	32(7.6)
	Two or more visits	390(92.4)

Other ethnicity =Kefa, tigry, siltie & woliyta

Other occupation =Driver, shoe shine boy, barber and retirement

Other living condition =Campus /University grounds /missionary charity, prison and living with non relative persons

## **5.2. Clinical characteristics and other substance use**

The most common psychiatric diagnosis was schizophrenia 39.1% (n=165), followed by major depressive disorder 33.2 % (n=140) and bipolar disorder 16.8% (n=71). However, other psychiatric disorders like brief psychotic disorder, schizoaffective, schizophreniform, psychotic disorder not otherwise specified, substance induced psychosis and anxiety disorders totally accounted for 10.9% (n=46). More than half 56.6% (n=239) of the study participants reported to have chewed khat. Of khat chewers, 31% (n=131) reported to have chewed daily. Also, of this, khat chewers, 86.2% (n=206) of them reported to have chewed for more than two years. However, 13.8% (n=33) reported to have chewed for less than and equal to two years. Nearly, one fourth 22.7% (n=96) of the study participants used alcohol. Among alcohol user participants, 60.4 % (n=58) had alcohol use disorder. Other substance use like shisha and ganja/cannabis/ totally accounted for 6.4 % (n=27).

## **5.3. Prevalence of tobacco dependence**

The prevalence of current tobacco use among study participants was 31.0 % (n=131). Of this, current tobacco use participants, 42.0% (n=128) was males. Also, the average daily tobacco consumption was 1 to 10 pieces. The general prevalence of current tobacco dependence among the study participants was 18.5% (n=78). All tobacco dependent participants were males. Of this, tobacco dependent participants, 10.7% (n=45) had moderate level of tobacco dependence. However, 2.4 % (n=10) and 5.5% (n=23) of them had very high and high level of tobacco dependence, respectively (Figure 2). Among the study participants 33.6% (n=142) and 45.7% (n=193) of them reported family history of tobacco use and having friends who smoke tobacco, respectively. Prevalence of tobacco dependence among alcohol use disorder/AUD/ and other substance user like shisha and ganja/cannabis/ was 51.7% (n=30) and 48.1% (n=13), respectively. Daily khat chewers were more often identified to have tobacco dependence compared to once a week khat chewers (39.7% vs. 16.7%, P=0.039). Among khat chewers, 8.7% of patients reported that, they started tobacco smoking due to self treatment for their illness. Prevalence of tobacco dependence among patients with bipolar disorder and schizophrenia was 16.9% (n=12) and 29.1% (n=48), respectively. However, among patients with major depressive

disorder, it was 8.6% (n=12). Similarly, tobacco dependence among patients who had co-morbid-medical illness, 17.9% (n=7).

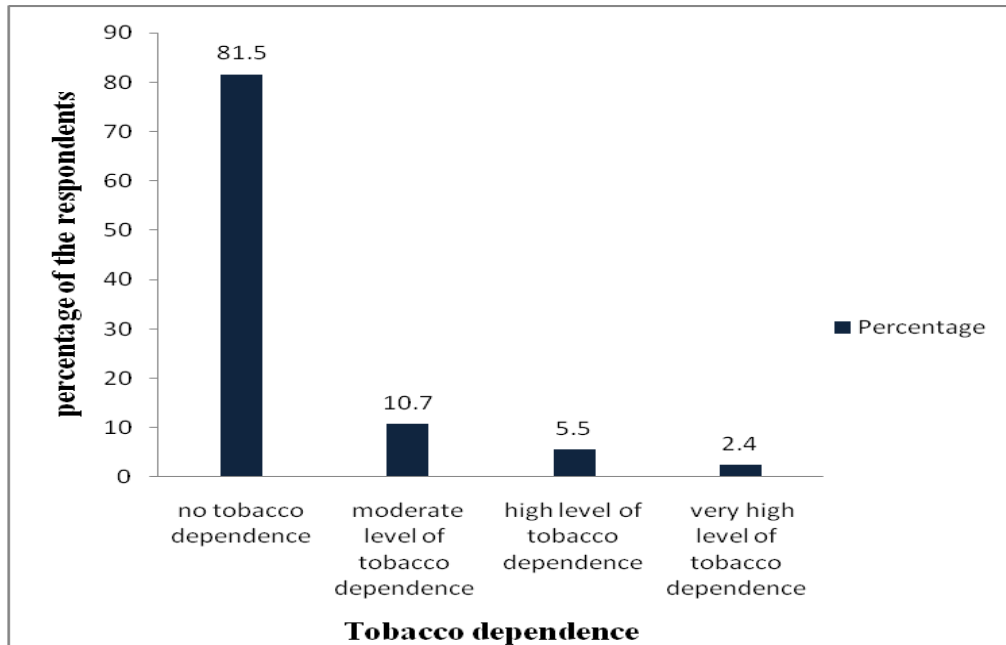


Figure 2: Level of tobacco dependence among psychiatric patients at tending service at JUTH, South west Ethiopia, 2014 (n=422)

#### 5.4. Factors which initiate patients to smoke tobacco

Nearly 65.0% (n=82) of the study participants reported that, they had started tobacco smoking to feel pleasure. Also, 32.6% (n=42) of them thought tobacco smoking is fashionable. However, 8.1% (n=10) and 24.8% (n=32) of them reported that, they started tobacco smoking due to self treatment for their illness and to increase self-esteem, respectively (Table 2).

Table 2: Environmental and psychological factors for initiating tobacco smoking among psychiatric patients attending service at Jimma University Teaching Hospital, Southwest Ethiopia, 2014

Reasons of tobacco smoking	Frequency (%)
Enjoyment	82(64.6)
Smoking is fashionable	42(32.6)
Increase self esteem	32(24.8)
Family history of tobacco smoking	142(33.6)
Having friends who use tobacco	193(45.7)
Self treatment for their illness	10(8.1)
To relief long standing stress	6(5.2)
To prevent coldness	1(0.9)
To forget financial problems	1(0.8)

\* Table adopted multiple responses

## 5.5. Factors associated with tobacco dependence

Using bivariate logistic regression analysis, attending primary education (OR 2.08, 95% CI= 1.01, 4.28, P=0.046), high school education (OR 2.13, 95 % CI=1.03, 4.39, P=0.039) and tertiary education (OR 2.48, 95% CI= 1.20, 5.14, P=0.014) were significantly associated with tobacco dependence (Table 3). Similarly, alcohol use disorder (OR 7.88, 95% CI= 4.26, 14.57, p<0.001), daily khat chewer (OR 3.29, 95% CI= 1.42, 7.59, P=0.005) and using other substance like shisha and ganja/cannabis/ (OR 4.71, 95% CI=2.11, 10.49, P<0.001) were positively associated with tobacco dependence. However, never khat chewer was negatively associated with tobacco dependence (OR 0.14, 95% CI= 0.04, 0.45, p=0.001). Participants who were never going to place of worship had more than seven times increased odds of developing tobacco dependence compared to those participants who going to place of worship daily (OR 7.55, 95% CI= 3.15, 18.08, p<0.001). Schizophrenic patients were 4.3 times increased odds developing tobacco dependence compared to those patients with major depression (OR 4.37, 95% CI= 2.21, 8.64, p<0.001) (Table 3 and 4).

After adjusting for potential confounders using binary logistic regression analysis enter logistic regression method was used, sometimes attending a place of worship, high school education, being diagnosed as schizophrenia, alcohol use disorder, daily khat chewing and having friends who smoke tobacco were positively associated with tobacco dependence. However, never khat chewer was negatively associated with tobacco dependence. The odds of developing tobacco dependence among participants who were attending a place of worship sometimes was more than two times higher than that of participants who attend a place of worship daily (AOR 2.54, 95% CI= 1.08, 5.95). The odds of developing tobacco dependence among participants who had attended high school education were three times higher than that of participants who had no formal education (AOR 3.02, 95% CI= 1.07, 8. 48). Similarly, the likelihood of developing tobacco dependence among patients with schizophrenia was five times higher than that of patients with major depression (AOR 5.26, 95% CI=2.07, 13.37). Also, the odds of developing tobacco dependence among patients with AUDs was four times higher than that of participants free of AUDs (AOR 4.14, 95% CI=1.54, 11.11). Additionally, the odds of having tobacco dependence among daily khat chewer was three times higher than that of patients who had chewed khat once a week (AOR 3.13, 95% CI=1.05, 9.30). Similarly, the odds of developing

tobacco dependence among never khat chewer was 77% times less likely than that of patients who had chewed khat once a week (AOR 0.23, 95% CI= 0.05, 0.95). The odds of having tobacco dependence among patients who had friends who use tobacco was nearly five times higher than that of patients who had non-tobacco user friends (AOR 4.88, 95% CI= 2.12, 11.25) (Table 5).



Table 3: Binary logistic regression: Factors associated with tobacco dependence among psychiatric patients attending service at Jimma University Teaching Hospital, Southwest Ethiopia, 2014 (n=422)

Variables		Tobacco dependence		P	Crude OR	95%CI
		Tobacco dependence (n=78 )(% )	No tobacco dependence (n=344) (%)			
Age	18-28	30(16.6)	151(83.4)	0.353	0.77	0.44, 1.33
	29-38	32(20.5)	124(79.5)		1	
	39-48	11(23.4)	36(76.6)	0.671	1.18	0.54, 2.58
	>=49	5(13.2)	33(86.3)	0.305	0.58	0.21, 1.62
Ethnicity	Oromo	52(17.2)	250(82.8)		1	
	Amhara	13(24.5)	40(75.5)	0.207	1.56	0.78, 3.12
	Others	13(19.4)	54(80.6)	0.671	1.15	0.58, 2.27
Marital status	Married	20(13.1)	133(86.9)		1	
	Single	49(20.6)	189(79.4)	0.059	1.72	0.98, 3.03
	Divorce /separated/ Widowed	9(29.0)	22(71.0)	0.031*	2.72	1.09, 6.73
Religion	Orthodox	26(23.2)	86(76.8)	0.111	1.56	0.90, 2.69
	Muslim	43(16.2)	222(83.8)		1	
	/Catholic/protestant/Jehovah witness	9(20.0)	36(80.0)	0.532	1.29	0.58, 2.87
Frequency of attending worship place	Never	15(38.5)	24(61.5)	<0.001*	7.55	3.15,18.08
	Some times	51(22.6)	175(77.4)	<0.001*	3.52	1.80, 6.85
	Daily	12(7.6)	145(92.4)		1	
Education	No formal education	15(11.2)	119(88.8)		1	
	Primary	21(20.8)	80(79.2)	0.046*	2.08	1.01, 4.28
	Secondary/high school/	21(21.2)	78(78.8)	0.039*	2.13	1.03, 4.39
	Tertiary	21(23.9)	67(76.1)	0.014*	2.48	1.20, 5.14
Occupation	Unemployed	26(24.8)	79(75.2)		1	
	Employed	12(16.9)	59(83.1)	0.216	0.61	0.28, 1.32
	Farmer	15(17.9)	69(82.1)	0.254	0.66	0.32, 1.34
	Merchant	7(15.9)	37(84.1)	0.239	0.57	0.22 , 1.44

	Student	6(14.0)	37(86.0)	0.153	0.49	0.18, 1.29
	Others	12(16.0)	63(84.0)	0.158	0.57	0.27, 1.23
Living condition	Living alone	5(27.8)	13(72.2)	0.273	1.81	0.62, 5.26
	Living with family	67(17.5)	316(82.5)		1	
	Others	6(28.6)	15(71.4)	0.206	1.88	0.70, 5.04
Family monthly income	Income <500ETH Birr	15(11.7)	113(88.3)	0.107	0.56	0.27, 1.13
	Income 501-1000ETH Birr	23(19.2)	97(80.8)		1	
	Income 1001-2000ETH Birr	22(22.0)	78(78.0)	0.604	1.19	0.61, 2.29
	Income >2000ETH Birr	18(24.3)	56(75.7)	0.394	1.35	0.67, 2.72
Frequency of hospital visit	First visit	5(15.6)	27(84.4)	0.665	0.80	0.30, 2.15
	Two or more visits	73(18.7)	317(81.3)		1	
Psychiatry diagnosis	Major depression	12(8.6)	128(91.4)		1	
	Schizophrenia	48(29.1)	117(70.9)	<0.001*	4.37	2.21, 8.64
	Bipolar disorder	12(16.9)	59(83.1)	0.077	2.16	0.92, 5.11
	Other psychiatric disorders	6(13.0)	40(87.0)	0.377	1.60	0.56, 4.53
Co-morbid medical illness	Yes	7(17.9)	32(82.1)	0.928	0.96	0.40, 2.26
	No	71(18.5)	312(81.5)		1	
Family history of tobacco use	Yes	43(30.3)	99(69.7)	<0.001*	3.04	1.83, 5.03
	No	35(12.5)	245(87.5)		1	
Having friends who smoke tobacco	Yes	66(34.2)	127(65.8)	<0.001*	9.39	4.89, 18.05
	No	12(5.2)	217(94.8)		1	

Other ethnicity =Guragie, dowuro, yem, kefa,tigry, siltie and woliyta

Other occupation =Daily laborer, house-wife, driver, shoe shine boy, barber and retirement

Bi polar disorder = bipolar I disorder and bipolar II disorder

Other psychiatric disorders = brief psychotic disorder, schizo affective, schizophreniform, psychotic disorder not otherwise specified, substance induced psychosis and anxiety disorders

Co- morbid medical illness=( hypertension, diabetes militias and gastritis)

Table 4: Binary logistic regression: A predicting tobacco dependence among psychiatric patients attending service at Jimma University Teaching Hospital, Southwest Ethiopia 2014 (n=422)

		Tobacco dependence		P	Crude OR	95%CI
		Tobacco dependence (n=78) (%)	No tobacco dependence (n=344)(%)			
Alcohol use Pattern	Sober	39(12.0)	287(88.0)		1	
	Alcohol use	9(23.7)	29(76.3)	0.048*	2.28	1.00,5.18
	Alcohol use disorder /AUD/	30(51.7)	28(48.3)	<0.001*	7.88	4.26,14.57
khat chewing	Never chewing	5(2.7)	178(97.3)	0.001*	0.14	0.04, 0.45
	Daily	52(39.7)	79(60.3)	0.005*	3.29	1.42,7.59
	2-3 times/week	13(21.7)	47(78.3)	0.515	1.38	0.52, 3.67
	Once a week	8(16.7)	40(83.3)		1	
Other substances use	Yes	13(48.1)	14(51.9)	<0.001*	4.71	2.11, 10.49
	No	65(16.5)	330(83.3)		1	

Other substances use like = shisha and ganja/cannabis/

Table 5: Multivariable logistic regression: A predicting tobacco dependence among psychiatric patients attending service at Jimma University Teaching Hospital, Southwest Ethiopia, 2014 (n=422)

Variables		P	Adjusted OR	95%CI
Frequency of attending worship place	Never	0.075	3.09	0.89, 10.75
	Some times	0.032*	2.54	1.08, 5.97
	Daily		1	
Education attended	No formal education		1	
	Primary	0.191	1.94	0.71, 5.24
	Secondary/high school/	0.036*	3.02	1.07, 8.48
	Tertiary	0.089	2.95	0.84, 10.31
Psychiatry diagnosis	Major depression		1	
	Schizophrenia	<0.001*	5.26	2.07, 13.37
	Bipolar disorders	0.072	2.76	0.91, 8.38
	Other psychiatric disorders	0.851	1.14	0.27, 4.69
Alcohol use pattern	Sober		1	
	alcohol use	0.951	0.96	0.29, 3.19
	Alcohol use disorder/AUD/	0.005*	4.14	1.54, 11.11
Khat chewing	Never chewing	0.043*	0.23	0.05, 0.95
	Daily chewing	0.039*	3.13	1.05, 9.30
	2-3 times per week	0.797	1.18	0.33, 4.23
	Once a week		1	
Having friends who smoke tobacco	Yes	<0.001*	4.88	2.12, 11.25
	No		1	

Other psychiatric disorders = brief psychotic disorder, schizoaffective, schizophreniform, psychotic disorder not otherwise specified, substance induced psychosis and anxiety disorders

## CHAPTER SIX: DISCUSSION

In this cross-sectional survey of tobacco dependence among psychiatric patients, nearly one fifth of the patients had tobacco dependence. The overall prevalence of current tobacco dependence found in this study (18.5%) was lower than similar study done in Karman Iran (28.75%) [17]. Similarly, it was lower than the prevalence of tobacco dependence found in a similar study done in Brazil (59.0%)[19]. This may be due to the difference between screening tools in Brazil and our study (DSM IV vs. FTND). Additionally, this may be due to the result of socio-cultural difference between Ethiopia, Brazil and Karman Iran. Similarly, the prevalence of current tobacco smoking found in this study (31%) was lower than the finding of a similar study done in India (36%) [21]. This may be due to socio-cultural difference between India and Ethiopia. However, the prevalence of current tobacco smoking found in this study (31%) was consistent with the community based study from Kersa Town in the eastern Ethiopia (28%) [24].

The prevalence of moderate (10.7%), high (5.5%) and very high level of tobacco dependence (2.4%) found in this study was lower than a similar study done in Brazil (13.5%, 29.2% and 23.9%, respectively) [20]. This may be as a result of socio-cultural difference between Ethiopia and Brazil. The prevalence of moderate level of tobacco dependence found in our study (10.7%) was consistent with similar study done in Brazil (13.5 %) [20]. The prevalence of high level of tobacco dependence found in our study (5.5%) was lower than similar study done in Iran (64.4%) [16]. The difference may be due to cut off point different used in our study and Iran. The Iran study used cut off point of >3 FTND score. However, in this study we used 6-7 FTND score. Additionally, the difference might be due to the result of socio-cultural differences between Iran and Ethiopia. The prevalence of tobacco dependence among patients with schizophrenia and bipolar disorders found in this study (29.1% and 16.9%, respectively) was nearly consistent with a similar study done in Karman Iran (30.9% and 22.9%, respectively) [17]. According to this finding, all tobacco dependent participants were males. This may be due to the cultural influence on females not to smoke tobacco. However, it needs further investigation.

It was also observed that attending a place of worship sometimes was associated with tobacco dependence. This may be due to the fact that patients who were attending a place of worship may get religious advice not to smoke tobacco. However, it needs further investigation. Also, daily khat chewing was associated with tobacco dependence. This may be due to patients and their

caregivers also explained their ongoing khat use was necessary to improve the patient's functioning and to alleviate medication side effects [32]. However, further investigation is crucial. Similarly, in our study being diagnosed as schizophrenia was associated with tobacco dependence. This may be due to nicotine administration appears to improve some cognitive impairments and parkinsonism in schizophrenia [33]. In this study, having friends who smoke tobacco was associated with tobacco dependence. This may be due to presence of peer pressure on using of tobacco and other substances.

Attending high school education was found to be associated with tobacco dependence that was consistent with similar study done in India [21]. Alcohol use disorder was associated with tobacco dependence which was consistent with a similar study done in India [21]. Daily khat chewer patients were more often identified to have tobacco dependence than patients who chewed khat once a week (39.7% vs. 16.7%,  $p=0.039$ ). This may be due to the fact that patients use different substance to relief the side effects of antipsychotic medications. However, it needs further investigation. For example, in this study among khat chewers, 8.7% of patients reported that, they started tobacco smoking for self treatment for their illness. Being diagnosed as schizophrenia was associated with tobacco dependence which was consistent with study done in Brazil [20].

Generally, Fagerstrom test nicotine dependence (FTND) was not validated in our country to screen tobacco dependence. Similarly FTND which is screening tool may not give accurate estimation of tobacco dependence. Social desirability bias could be another limitation as patients with tobacco dependence might minimize or deny their tobacco use. We have used cross-sectional study design which doesn't show cause and effect relationships.

## **CHAPTER SEVENE: CONCLUSIONS AND RECOMMENDATIONS**

### **7.1. Conclusions**

In this study, the prevalence of tobacco dependence was high which requires immediate intervention especially psychotherapy and pharmacotherapy to reduce tobacco related diseases. The prevalence of tobacco dependence among patients with schizophrenia was high which might lead them to develop other co-morbid medical illness like lung cancer, ischemic heart disease, hypertension etc [13, 33]. So, immediate intervention is crucial to reduce tobacco related complications among patients with schizophrenia.

Patients with tobacco dependence were using different substances like khat, alcohol and shisha which have its own impact on medication adherence and prognosis of the mental illness. So, comprehensive treatment approach is very important to reduce the risk associated to these substances.

In this study we found that, patients started to smoke tobacco because of having a friend who smokes tobacco. This indicates that friends should be an integral part of tobacco dependence risk reduction approaches and strategies.

## **7.2. Recommendations**

Health professionals who are working in JUTH psychiatric clinic should give brief intervention to reduce tobacco related diseases. Health professionals who are working in JUTH psychiatric clinic should give more attention on screening of tobacco dependence among patients with schizophrenia and other mental illness. They should strongly work on assessing and treating patients who are using substances like khat, alcohol and shisha.

JUTH should provide medication which is available for treatment of tobacco dependence in other countries. Ministry of health should consider the effect of tobacco dependence among psychiatry patients in the policy and plan to reduce death of patient from the consequence of tobacco dependence.

Researcher should focus on how to treat patients with tobacco dependence in resource limited country like Ethiopia.



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## ANNEXES

### Annexes I: Questionnaire (English Version)

Jimma University Collage of Public Health and Medical Science, School of Graduate Studies

Department of psychiatry

Questionnaire for assessing tobacco dependence and associated factors among psychiatric patients attending service at Jimma University Teaching Hospital psychiatric clinic, South west Ethiopia

Consent form

\_\_\_\_\_, I am here on behalf of Jimma University, Collage of Public health and Medical science, Department of psychiatry. The aim of this study is to estimate the prevalence of tobacco dependence and associated factors among psychiatric patients attending service at Jimma University teaching hospital psychiatric clinic. Your honestly participation in filling questionnaires will provide us valid result and show us real status and help to make intervention, hence we request participant honestly. Your participation in fillings the prepared questionnaires that you prefer not to answer, but we would appreciate your cooperation. You may also ask me to clarify questions if do not understand them or can stop the interview at any time. Finally, all the information that you provide for the study is kept completely confidential. Your responses to our questions are identified only by number, never by name.

Do you agree to participate in this study?

A .Yes            B .No - stop

Thank you for your participation

Name of data collectors \_\_\_\_\_signature\_\_\_\_\_date\_\_\_\_\_

Name of supervisor \_\_\_\_\_signature\_\_\_\_\_date\_\_\_\_\_

**Part I; Socio-demographic and socioeconomic information**

Name of the health institution \_\_\_\_\_

Date \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

ID Number \_\_\_\_\_

S, no	Questions	Response
101	age of the patient in year	_____
102	sex of the patient	1. Male 2. Female
103	Marital status	1. Single 2. Married 3. Divorced 4. Separated 5. Widowed
104	Religion of the patient	1. Orthodox Christian 2. Muslim 3. Protestant 4. Catholic 5. Other (specify) _____
105	Frequency of attending worship  Place	1. Never 2. Sometimes

		3. Daily
106	Ethnicity	<ol style="list-style-type: none"> <li>1. Oromo</li> <li>2. Amhara</li> <li>3. Gurage</li> <li>4. Dawro</li> <li>5. Yem</li> <li>6. Other(specify)_____</li> </ol>
107	level of education	<ol style="list-style-type: none"> <li>1. Illiterate</li> <li>2. Read and write only</li> <li>3. Literate, specify grade completed_____</li> </ol>
108	Occupation	<ol style="list-style-type: none"> <li>1. Employed</li> <li>2. Unemployed</li> <li>3. Farmer</li> <li>4. Merchant</li> <li>5. Daily laborer</li> <li>6. Student</li> <li>7. House wife</li> <li>8. Other(specify) _____</li> </ol>
109	Estimated family monthly income in Ethiopian birr?	1. Per month_____

		2. Per year _____
110	Living condition	1. Living alone 2. Living with family (parent, spouse and child) 3. Living with relatives (aunt and uncle ) 4. Other (specify) _____
111	How many visits do you have in this hospital?	1. The first visit 2. Two and above

**Part II; Cut down Annoyed Guilty Eye opener (CAGE).**

S. no.	Question	Answer
201	Do you drink alcohol?	1. Yes 2. No
201.1	If your answer is yes, for question number 201, 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

**Part III; Fagerstrom test nicotine dependence (FTND)**

206	Do you smoking cigarette?	1. Yes 2. No			
206.1	If your answer is yes, for question number 206, please answer the following questions				
	Score	0	1	2	3
207	How soon after waking do you smoke your first cigarette?	After 60minutes	31—60 minutes	6-30 minutes	Within 5 minutes
208	Do you find it difficult to refrain from smoking in places where it is forbidden? e,g church, library, etc	No	Yes		
209	Which cigarette would you hate to give up?	All others	The first one in the morning		
210	How many cigarettes a day do you smoke?	10 or less	11-20	21-30	31 or more
211	Do you smoke more frequently in the morning?	No	Yes		

212	Do you smoke even if you are sick in bed most of the day?	No	Yes		
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**Part IV; Questions on use of other substance, environmental and psychological factor and family history of cigarette smoking.**

213	Did you chew khat in the past 30 days?	1. Yes 2. No
213.1	If yes, for question number 213, how often?	1. Daily 2. 2-3 times per week 3. Once a week 4. Other (specify)_____
213.2	If yes, for question number 213, how long did you use?	1. In month_____ 2. In year_____
214	Do you use substance like, shisha ,ganja and Cannabis	1. Yes. 2. No
214.1	If yes, for question number 214, which type?	_____
215	How did you start cigarette smoking?  (can say yes to more than one)	1. Enjoyment 2. Increase self esteem 3. Smoking is fashionable 4. Other (specify)_____

216	Is there family member like father, mother, sister, brother, aunt, uncle etc who smoke cigarette? Despite its negative effects on her /him?	1. Yes 2. No
217	Do you have your friends smoking cigarette?	1. Yes 2. No
218	Do you have medical illness other than psychiatric illness?	1. Yes 2. No
218.1	If yes, for question number 218,what type of diseases	_____
219	Psychiatric diagnosis of the patient ( refer card) if, more than one write all	_____

Annexes II: በአማራኛ የተዘጋጀ መጠይቅ (Amharic version)

ጅም ዩንቨርሲቲ ሕብረተሰብ ጤናና ሕክምና ሳይንስ ኮሌጅ የአእምሮ ሕክምና ክፍል የጥናቱን አላማ መረዳት እና በፍቃደኝነት ላይ የተመሰረተ የስምምነት ውል

ሰላምታ

ሰሜ \_\_\_\_\_ ይባላል። እዚህ የተገኘሁት ጅም ዩንቨርሲቲ ጤና ሳይንስ እና ሕክምና ኮሌጅ የአእምሮ ሕክምና ት/ት ክፍልን ወክሎ ነው። የጥናቱ አላማ በማጨስ አምክንያት የሚከሰቱ ተዛማጅ ችግሮቹን መገመትና ለማጨስ አጋላጭ የሆኑ ጉዳዮች ዙሪያ ጥናት ለማካሄድ መረጃ በመስብሰብ ላይ እገኛለሁ። እርስዎ በታማኝነት ጥያቄውን በመመለስ ትክክለኛ ውጤት እንዲገኝ እና ትክክለኛ እርምጃ እንዲወስድ ይረዳል። ስለዚህም በታማኝነት እንዲሳተፍ እንጠይቅዎታለን። ተሳትፎው በፍቃደኝነት ላይ የተመሰረተ ነው። መመለስ ያልፈለጉትን ጥያቄ መዘለል ይችላሉ። ነገር ግን የእርስዎን ትብብር እንፈልጋለን። ያልገባዎትን ጥያቄ ካለ እንዲብራራልዎት ሊጠይቁኝ ይችላሉ ወይም መጠየቁን በማንኛውም ጊዜ ሊያስቆሙ ይችላሉ። ማስቆምዎ ከሆስፒታሉ በሚያገኙት ሕክምና ላይ ምንም ችግር አያደርስም። በመጨረሻም እርስዎ ለዚህ ጥናት የሚሠጡን መረጃ ምሰጠራዊነታቸው ሙሉ በሙሉ የተጠበቀ ነው። ለሚሠጡን መረጃ ስምዎትና ማንነትዎ አይገለፅም።

ለመሳተፍ ፍቃደኝነዎት ?

1. አዎ ----- ቃለመጠየቅ ይቀጥላል
2. አይደለም ----- ጥያቄውን በማቆም አመስግነው ያሰናብቱ።

የጠያቂው ስምና ፊርማ ----- ቀን -----/-/ -----

ተቆጣጠሪው ስምና ፊርማ -----ቀን -----/-/ -----

የጤና ተቋሙ ስም-----

ቀን-----/-----/-----

ካርድ ቁጥር -----

ክፍል አንድ:- በመመሪያው የሚገኙትን መልስ በትክክል ያክብቡ ወይንም የተሰጠዎትን መልስ በትክክል ይጻፉ

ተ.ቁ	ጥያቄዎች	መልስ
101	ዕድሜ (በዓመት)	_____
102	ፆታ	1- ወንድ 2- ሴት
103	የጋብቻ ሁኔታ	1. ያላገ/ች 2. ያገባ/ች 3. የፈታ/ች 4. የተለያየ ቦታ የሚኖሩ 5. ቧቧ የሞተባት/ሚስት የሞተችበት
104	ሐይማኖት	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ ካለ ይጠቀስ_____
105	በየሰንትጊዜ የማምለኪያ ቦታ ይሔዳሉ?	1. ሃጅ አላውቅም 2. አንዳንዴ እሄዳለሁ 3. በየቀኑ እሄዳለሁ
106	ብሔር	1- ኦሮሞ 2- አማራ 3- ጉራጌ 4- ዳዉሮ

		<p>5- የም</p> <p>6- ሌላ ካለ ይጠቀስ_____</p>
107	የትምህርት ደረጃ	<p>1. ያልተማረ</p> <p>2. ማንበብና መጻፍ የሚችል</p> <p>3. የተመረ/ች ከሆነ/ች ያጠነቀቀበተን/ችበትን ክፍል_____</p>
108	ሥራ	<p>1. የመንግስት ስራተኛ</p> <p>2. ስራ የለውም /የላትም</p> <p>3. ገበሬ</p> <p>4. ነጋዴ</p> <p>5. ቀን ስራተኛ</p> <p>6. ተማሪ</p> <p>7. የቤት እመቤት</p> <p>8. ሌላ ካለ ይገልፁ_____</p>
109	አማካይ የቤተሰብ የወር ገቢ ምን ያህል ነው /በብር/ ?	<p>1. በወር _____</p> <p>2. በአመት_____</p>
110	ከማን ጋር ነው የምትኖረው/ሪው/?	<p>1- ለብቻዮ</p> <p>2- ከቤተሰቦቼ ጋር /አባት፣ እናት፣ከባል፣ ከሚሰት፣ ከልጅ)</p> <p>3- ከዘመድ /ከአክስት ከአጎት/ ጋር</p> <p>4- ሌላ ካለ ይጠቀስ_____</p>
111	ከዚህ ሆስፒታል ለስንተኛ ጊዜ ክትትልህ/ሷ/ነው ?	<p>1. ለመጀመሪያ ጊዜ</p> <p>2. ሁለትና ከዚያ በላይ</p>

**ክፍል ሁለት CAGE ጥያቄ**

ተራቁ.	ጥያቄ	መልስ
201.	የአልኮል መጠጥይጠጣሉ ወይ?	1. አዎ 2. የለም
201.1	ለጥያቄ ቁጥር 201 መልስዎ አዎ ከሆነ እባክዎን የሚከተሉትን ጥያቄዎች ይመልሱ?	
202.	መጠጥ መጠጣት ማቆም አለብኝ ብለህ/ሽ/ አስ ብህ/ሽ/ ታወቃለህ/ሽ/?	1. አዎ 2. የለም
203.	ሰዎች መጠጥ ስለመጠጣትህ/ሽ/ እየተነጋገሩ አበሳጭተዉህ/ሽ/ ያዉቃሉ?	1. አዎ 2. የለም
204.	መጠጥ ስለመጠጣትህ/ሽ/ የጥፋተኝነት ስሜትተሰምቶህ/ሽ/ ያዉቃል?	1. አዎ 2. የለም
205.	በጠዋት እንደተነሳህ/ሽ/ መጠጥጠጥተህ/ሽ/ ታዉቃለህ/ሽ/?	1. አዎ 2. የለም

**ክፍል ሦስት FTND ጥያቄ**

206	ሲጋራ ታጨሳለህ/ሽ/?	1. አዎ 2. የለም			
206.1	ለጥያቄ ቁጥር 206 መልስዎ አዎ ከሆነ እባክዎን የሚከተሉትን ጥያቄዎች ይመልሱ?				
	Score	0	1	2	3
207	ከእንቅልፍ እደተነሳህ/ሽ/ በስንት ደቂቃ ውስጥ የመጀመሪውን ሲጋራ ታጨሳለህ/ሽ/?	ከ60 ደቂቃ በኋላ	ከ31-60 ደቂቃ	ከ6-30 ደቂቃ	በ5 ደቂቃ ውስጥ

208	ሲጋራ ማጨስ በተከሰሰበት ቦታ ላይ እንደ ቤተክርስቲያን ፣ ሳጠ በራሪ የመሳሰሉት ቦታዎች ላይ ሳያጨሱ መቆየት ይከብደሃል/ /ሸ/?	የለም	አዎ		
209	የትኛውን ሲጋራ ነጠ ማቆም የሚከብደህ /ሸ/?	ሁሉንም	ጧት የመጀመሪያውን		
210	ስንት ሲጋራ በቀን ታጨሳለህ/ሸ/?	10 ወይም ከ10ቦታች	11-20	21-30	31ወይም ከዚያ በላይ
211	ከእንቅልፍ እደተነሳህ/ሸ/ በተደጋጋሚ ታጨሳለህ/ሸ/? ከሌላው ስዓት በበለጠ	የለም	አዎ		
212	ታመህ/ሸ/ተኝተህም/ሸ/ሲጋራ ታጨሳለህ/ሸ/?	የለም	አዎ		

ክፍል አራት፡ ሌሎች አነቃቂና አደንዛዥ እጾችን መጠቀምን ፣ ስነ ልቦናንና ቤተሰቡ ሲጋራ መጠቀምን መሚመለከቱ ጥያቄዎች

213	ላለፉት ሰላሳ ከናት ጫት ተጠቅመዋል?	1. አዎ 2. የለም
213.1	ለጥያቄ ቁጥር 213 መልስዎ አዎ ከሆነ	1- በየቀኑ 2- በሳምንት 2-3 ጊዜ 3- በሳምንት አንድ ጊዜ 4- ሌላ ካለ ይጠቀስ_____
213.2	ለጥያቄ ቁጥር 213 መልስዎ አዎ ከሆነ ለምን ያህል ጊዜ ተጠቅመዋል?	1. በወረ_____ 2. በአመት_____
214	አደንዛዥና አነቃቂ እጾችን ይጠቀማሉ ለምሳሌ እንደ ሀሽሽ፣ ሸሽ፣ ጋንጃ ፣ ካናቢስ የመሳሰሉትን ነገሮች	1- አዎ 2- የለም



	<b>ይጠቀማሉ?</b>	
214.1	<b>ለጥያቄ ቁጥር 214 መልስዎ አዎ ከሆነ አይነቱን ይግለፁ</b>	_____
215	<b>ሲጋራ ማጨስ እንዴት ሊጀመሩ ቻሉ? ከአንድ በላይ መልስ መስጠት ይቻላል?</b>	1. ለመደሰት 2. መራስ መተማመኔን ለመጨመር 3. ማጨስ ፋሽን ስለሆነ 4. ሌላ ካለ ይጠቀስ___
216	<b>በቤተሰብዎ ውስጥ ለምሳሌ አባት፣ እናት፣ ፤እህት፣ ወንድም፣ ዘመድ፣ የመሳሰሉት በየቀኑ ወይም በአብዛኛው ጊዜ በጤናው ወይም በማህበራዊ ሕይወት ላይ ችግር የሚያመጣበት እንደሆነ እያወቀ የሚያጨስ ሰው አለ?</b>	1. አለ 2. የለም
217	<b>የሚያጨስ ጓደኛ አለህ/ሽ/?</b>	1. አለ 2. የለም
218	<b>ከአእምሮ ህመም ወይም ሌላ የአካላዊ ህመም (የወጥ ደዌ) አለብህ/ሽ?</b>	1. አዎ 2. የለም
218.1	<b>ለጥያቄ ቁጥር 218 መልስዎ አዎ ከሆነ የበሽታውን አይነት የግለፁ</b>	_____
219	<b>የህመሙን አይነት (ካርድ ይመልከቱ) ከአንድ በላይ ከሆነም ሁሉንም ይጻፉ</b>	_____

### **Annexes III: Gaaffii Afaan Oromoon dhiyaate**

#### **Yuuniversiitii Jimmaa Koolleejjii fayyaa hawaasaa fi Saayinsii hakiimatti Kutaa Hakiima sammuu**

#### **Kaayyoo qo’annichaa Hubachuu fi waliigaltee fedhii irratti hundaa’e**

Nageenya

Maqaan koo \_\_\_\_\_ kanan jedhamu. Asitti kanan argame Yuuniversiitii Jimmaa Koolleejjii fayyaa hawaasaa fi Saayinsii hakiimatti Kutaa Hakiima sammuu bakka bu’eeni. Kaayyoon qo’annichaa rakkoowwan sababa xuuxuun uumamanii fi naannawaa waantota xuuxuuf nama saaxilanitti qorannoo geggeessuuf odeeffannoo funaanuu irrattan argama. Isinis amanamummaan gaaffiiwwan gadii yoo deebistan firii sirrii ta’ee fi tarkaanfii sirrii akka fudhatamuuf gargaara; Kanaafuu amanamummaan akka hirmaattaniif isin gaafanna. Hirmaannaan keessan fedhii irratti kan hundaa’edha. Gaaffii deebisuuf hin barbaanne irra darbuu ni dandeessu, garuu gargaarsa keessan ni barbaanna. Gaaffiin isinii hin galiin yoo jiraate akkan isiniif ibsuuf na gaafachuu dandeessu ykn gaafficha yeroo kam iyyuu addaan kutuu ni dandeessu. Adda kutuun keessan mana yaalicha irraa wallaansa argattan kan irratti iyyuu dhiibbaa hin qabu.

Dhumarrattis odeeffannoon isin qo’annoo kanaaf kennitan iciitummaan isaanii guutummaa guutuutti kan eegamanidha. Odeeffannoo nuuf kennitaniif maqaan keessanii fi eenyummaan keessan hin ibsamu.

Hirmaachuuf eeyyamamoodhaa?

1. Eyyeen \_\_\_\_\_ Gaaffiin itti fufa
2. Lakkii \_\_\_\_\_ Gaafficha dhaabuun gafateeffadhaa deemaa.

Maqaa fi mallattoo nama gaafatuu \_\_\_\_\_ Guyyaa \_\_\_\_\_

Maqaa fi mallattoo to’ataa \_\_\_\_\_ Guyyaa \_\_\_\_\_

Maqaa Dhaabbata fayyichaa\_\_\_\_\_

Guyyaa\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Lakkoofsa kaardi\_\_\_\_\_

**Kutaa Iffaa: Deebii qajeelcha irratti argaman sirriitti itti maraa ykn Deebii kenname sirriitti barreessaa**

Lakk	Gaaffii	Deebii
101	Umurii (waggaan)	_____
102	Saala	1. Dhiira 2. Dhala
103	Haala Gaa'elaa	1. Kan hin fuudhiin/kan hin heerumiin 2. Kan fuudhe/kan heerumte 3. Kan hiike/kan hiikamte 4. Kan haati manaa jalaa duute/ kan abbaan manaa irraa du'e 5. Bakka addaa addaa kan jiraatan
104	Amantaa	1. Ortodoksii 2. Musiliima 3. Prootestaantii/peenxee 4. Kaatoolikii 5. Kan biraa yoo ta'e ibsaa
105	Yeroo meeqa bakka waaqeffannaaykn mana Amantii deemta?	1. Tasumaa iyyuu 2. Yeroo tokko tokko 3. Yeroo hundaa
106	Sabummaa	1. Oromoo 2. Amaara 3. Guraagee 4. Daawuroo

		<ul style="list-style-type: none"> <li>5. Yem</li> <li>6. Kan biraa yoo ta'e ibsaa</li> </ul>
107	Sadarkaa barnootaa	<ul style="list-style-type: none"> <li>1. Kan dubbisuuf barreessuu hin dandeenye</li> <li>2. Kan dubbisuu fi barreessuu hin danda'u</li> <li>3. Kan barate/baratte yoo ta'eef ,kutaa meeqa barate/baratte_____</li> </ul>
108	Hojii	<ul style="list-style-type: none"> <li>1. Hojjetaa mootummaa</li> <li>2. Hojii hin qabu</li> <li>3. Qonnaan bulaadha</li> <li>4. Daldalaadha</li> <li>5. Hajjataa guyyaa</li> <li>6. Barataadha</li> <li>7. Hojii mana keessaa kan hojjettu</li> <li>8. Kan biraa yoo ta'e ibsaa_____</li> </ul>
109	Giddu galeessi galii kee ji'aanii meeqaa?	<ul style="list-style-type: none"> <li>1. Ji'aan</li> <li>2. Waggaan</li> </ul>
110	Eenyu faana jiraattaa?	<ul style="list-style-type: none"> <li>1. Qobaa koo</li> <li>2. Maatii faana</li> <li>3. Fira/hiriyyaa koo faana</li> <li>4. Kan biraa yoo ta'e ibsaa_____</li> </ul>
111	Hospitaala kana ala meeqaaf deddebite yaalamte beekta?	<ul style="list-style-type: none"> <li>1. yeroo tokko</li> <li>2. Yeroo lamaa fi sanaa ol</li> </ul>

**Kutaa 2ffaa: “Cage”**

Lakk	Gaaffii	Deebii
201	Dhugaatii alkoolii ni dhugduu?	<ul style="list-style-type: none"> <li>1. Eyyeen</li> <li>2. Gonkumaa</li> </ul>

201.1 Deebbiin keessan gaaffii 201 ffaa olii eyyeen kan jedhu yoo ta'e maaloo gaaffiiwwan gaditti tarreefaman deebisaa		
202	Dhugaatii alkoolii qabu dhuguu nan dhaaba jettanii yaaddanii beektuu?	1. Eyyeen 2. Gonkumaa
203	Namootni waa'ee dhugaatii isin dhugdani odeessanii isin jeeqanii beekuu?	1. Eyyeen 2. Gonkumaa
204	Sababa dhugaatii alkoolii dhugdaniif akka balleessaa balleessitanitti isinitti dhaga'amee beekaa?	1. Eyyeen 2. Gonkumaa
205	Ganamaan kaatee dhugaatii alkoolii dhugdee beektaa?	1. Eyyeen 2. Gonkumaa

### **Kutaa 3ffaa: Gaaffii FTND**

206	Sigaaraa ni aarsitaa?	1. Eyyeen 2. Gonkumaa			
206.1	Deebbiin keessan gaaffii 206 ffaa olii eyyeen kan jedhu yoo ta'e maaloo gaaffiiwwan gaditti tarreefaman deebisaa				
	Score	0	1	2	3
207	Hirriba irraa akka kaateen daqiiqaa meeqa keessatti sigaaraa jalqabaa xuuxxaa?	Daqiiqaa 60 booda	Daqiiqaa 31-60 keessatti	Daqiiqaa 6-30 keessatti	Daqiiqaa 5 keessatti
208	Naannoo sigaaraan xuuxame kan akka mana kadhannaa, laabireerii fi kan birootti haara sigaaraan rakkattee beektaa?	Gonkuma	Eyyeen		
209	Yeroo itti sigaaraa dhaabuu jibbitu jiraa?	Yeroo biraa	Ganama gara		

			jalqabaa		
210	Guyyaatti sigaaraa hangam xuuxxaa	10 ykn 10 gadi	11-20	21-30	31 ykn isaa ol
211	Irra deddeebiin ganama ni xuuxxaa	Gonkuma	Eyyeen		
112	Dhukkubsattee sireerra osoo jirtuu sigaaraa ni xuuxxaa?	Gonkuma	Eyyeen		

**Kutaa 4ffaa: Gaaffiiwwan hanga wanneen Sammuu nama adoochaniif fi si'eessanii fudhatamanii fi maatiin sigaaraa fayyaduu isaanii ilaallatan**

Lakk	Gaaffii	Deebii
213	Caatii ni qaamaataa?	1. Eyyeen 2. Gonkumaa
213.1	Gaaffii 213 deebiin keessan eyyeeen yoo ta'e hangam?	1. Guyyaa guyyaan 2. Orbanitti al 2-3 3. Torbanitti al tokko 4. Kan biraa yoo ta'e ibsaa _____
213.2	Gaaffii 213 deebiin keessan eyyeeen yoo ta'e yeroo hangamiif gargaaramaa turte	1. baati _____ 2. wagga _____
214	Wanneen Sammuu nama adoochaniif fi si'eessan ni fayyadamtuu? Fkf. kanneen akka Ashiishii, Kaanaabisii ni fayyadamtuu?	1. Eyyeen 2. Gonkumaa
214.1	Gaaffii 214 deebiin keessan eyyeeen yoo ta'e maal akka fayyadamtanii fi hangam akka ta'e ibsaa?	_____
215	Sigaaraa xuuxuu akkam	1. Dhamdhamuuf (Qammasuuf)

	itti jalqabdani?	<ol style="list-style-type: none"> <li>2. Ofitti amanamummaa koo dabauu</li> <li>3. wanta ammayyaa waan ta'eef</li> <li>4. Kan biraan yoo jiraate ibsaa</li> </ol>
216	Maatii kee keessa fkf abbaa kee, harmee kee kkf haala salphaan ykn yeroo baayee fayyaa ykn jireenya hawwaasummaa irratti rakkoo inni fidu osoo beekuu kan xuuxu jiraa?	<ol style="list-style-type: none"> <li>1. Jira</li> <li>2. Hin jiru</li> </ol>
217	Hiriyyaa xuuxu qabdaa?	<ol style="list-style-type: none"> <li>1. Eyyeen</li> <li>2. Hin qabu</li> </ol>
218	Dhukkuba sammun ala dhukkuba kan biraa qabdaa?	<ol style="list-style-type: none"> <li>1. Eyyeen</li> <li>2. Gonkumaa</li> </ol>
218.1	Lakk.218 deebiin kee eyyee yoo ta'e gosa dhukkuba sanaa himi.	_____
219	Dhukkubsaticharra dhukkubni sirriin irra jiru maalidhaa?	_____

## **DECLARATION**

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

Name \_\_\_\_\_

Signature \_\_\_\_\_

Date of submission \_\_\_\_\_

### **Approval of first adviser**

Name of adviser \_\_\_\_\_

Date \_\_\_\_\_ signature \_\_\_\_\_

### **Approval of second adviser**

Name of adviser \_\_\_\_\_

Date \_\_\_\_\_ signature \_\_\_\_\_



