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**University of Gondar and Addis continental institute of public health**

**Assessment of khat chewing among preparatory school students in Addis Ababa**

**Yohannes Dereje**

**IJSER**  
Advisor

**Nigussie Deyessa (MD, MPH, PHD, Ass. Professor)**

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## Abbreviations

AOR = Adjusted Odds Ratio

CGPA = Cumulative Grade point Average

CI = Confidence Interval

GI = Gastro Intestinal

GDP = Gross Domestic Product

HAPCO – ARC = HIV/AIDS prevention and control organization, AIDS resource center

HIV = Human Immune Deficiency Virus

MPH = Masters in Public Health

OR = Odds Ratio

SNNPR = Southern nations and nationalities peoples region

SPSS = Statistical Package for Social Science

UK = United Kingdom

UNODC = United nation on drug and crime

USA = United States of America

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## Abstract

**Background:** Khat is the name generally used for *Catha edulis* which is known by a variety of names. It is being used in different countries of the world and the number of users is increasing rapidly from time to time. It is mostly used by long distance truck drivers and students for relieving stress and as a means of keeping them alert. It affects the health, economic & social life of both consumers and their family. Knowing the prevalence and its associated factors in a school setting will help to design different intervention measures.

**Objective:** The objective of the study is to assess Khat chewing habit and its associated factors among Preparatory school students in Addis Ababa.

**Methods:** A school based cross-sectional study was conducted on March 2011 on preparatory school students of Addis Ababa by using a self administered questionnaire. Eighteen schools were selected by simple random sampling method. The schools were stratified in to grade 11 & 12 and one section in each grade level was selected randomly and finally all the students in the selected sections were included in the study. Logistic regression and independent sample t-test were used for analyzing the association of different variables and for comparing academic performance of khat chewers and non chewers respectively.

**Results:** The lifetime & current prevalence of khat chewing were 19.9% and 8.02% respectively. Muslim religion (AOR= 3.05(1.40, 6.67)), being grade 12 (AOR= 2.21(1.21, 4.05)), early initiation of khat chewing (AOR= 0.21 (0.11, 0.38)), social science field (AOR= 1.74(1.01, 2.99)), having a friend chewing khat (AOR=6.94 (3.13, 15.38)), use of alcohol (AOR= 2.93(1.40, 6.13)), cigarette (AOR= 8.04(4.11, 15.71)) and Shisha (AOR = 7.19 (3.53, 14.64)) were significantly associated with khat chewing habit. Additionally, khat chewers scored a lower academic result than non chewers.

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**Conclusion & recommendations:** The prevalence of khat chewing habit was fairly low. Religion, grade level, field of study, having a friend chewing khat, use of alcohol, cigarette and Shisha were found to be significantly associated with khat chewing habit. It influenced the academic performance of preparatory school students. So, great emphasis should be given in increasing awareness, including substance abuse in the educational curriculum and establishing healthy recreational places.

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## 1. Introduction

Khat is the name generally used for *Catha edulis*, a dicotyledonous evergreen tree or shrub of the family Celastraceae. It is known by a variety of names, such as qat and gat in Yemen, qaat and jaad in Somalia, and chat in Ethiopia. Abyssinian tea, African salad, bushman's tea, catha, flower of paradise, herari, kaad, leaf of Allah, tea of the Arabs, tohai and tschat. It is also known as Jimma in the Oromo language and Miraa in the Meru language (1, 2, 3).

It appears to have originated in Ethiopia and is widely used in East Africa, including Ethiopia, southern Africa, Middle East and the Arabian Peninsula and also there are some data's that show the use of this substance in different parts of the world (4).

Many different compounds are found in khat, including alkaloids, terpenoids, flavonoids, sterols, glycosides, tannins, amino acids, vitamins and minerals. From the alkaloid compound there are psycho active substances called cathinone which is, structurally and chemically similar to d-amphetamine and cathine, which is a milder form of cathinone (5,6,7).

Fresh leaves contain both ingredients. When Khat leaves dry, the more potent chemical, cathinone, decomposes within 48 hours leaving behind the milder chemical, cathine and these results in users' preference for fresh leaves. The fresh leaves and tops are chewed or less frequently dried and consumed as tea (6, 8).

It feeds millions of farmers and people involved in its trade because of its high and stable market prices and its resistance against drought and frost. The taxes imposed on khat are also an important source of revenue to governments (9, 10, 11, 12).

Today, the main producing countries are Ethiopia, Yemen, and Kenya, where the production, trade, and use of khat are not legally restricted. Ethiopia is considered to be the world's largest producer, with khat being the country's second largest export product in 1999 (10).

In Yemen, the area under khat production has expanded dramatically, and the khat sector now produces 10% of the national GDP and provides jobs to approximately 500,000 people i.e. one in seven working Yemenites (13).

Different studies revealed that the regular consumption of khat is associated with various health, social and economic problems affecting both consumers and their families. Because those Khat chewers need to spend plenty of time which results in delay or absenteeism in different working areas. And this indirectly affects the individuals and his/her families life as a result of the amount of money being used for using the substance in place of the family's expenses as well as the inappropriate behavior developed by the user. (8, 44, 45)

Certain occupational groups like long distance truck drivers and students use it for relieving stress and as a means of keeping them alert. The degree of excitement increases when it is combined with cigarette smoking and other substances. (31)

Populations which are considered as high risk groups for substance abuse are students, commercial sex workers & street children. Since students in preparatory school are in the domain of the young generation who are a very sensitive & eager to see new things and also the one who can make a great contribution to their country & the world, knowing the problems they are facing and being involved can give a great information in order to undertake corrective measures and solutions. Preparatory schools are the places where students arrange themselves to join universities. Knowing & Solving the problems at the spot will make the students do better and will have a significant impact in the development of the country. So the rational of the study is to assess Khat prevalence & identify factors related with the substance and also to give important recommendations to the responsible bodies.

## **2. Literature review**

### **2.1. Magnitude of Khat chewing**

#### **2.1.1. In the general population**

It has been estimated that currently ten million people worldwide use khat on a daily basis and it's being used in different parts of the world (14).

It is estimated that up to 90% of adult males chew khat three to four hours daily in Yemen. The number for females may be as high as 50% or even higher as young women take up the habit; a recent study for the World Bank estimated that 73% of women in Yemen chew khat more or less frequently and 15–20% of children under the age of 12 are also daily consumers (15).

In Yemen, 80% of the males and 45% of the females were found to be Khat users who had chewed daily for long periods of their life. About 70–80% of Yemenis between 16 and 50 years old chew Khat, at least on occasion and it has been estimated that Yemenis spend about 14.6 million person-hours per day chewing Khat. It is estimated that the amount of money spent on Khat has increased from 14.6 billion rials in 1990 to 41.2 billion rials in 1995 (16). In 2004, the lifetime prevalence of Khat use was 81.6% among men and 43.3% among women; current every day use of khat was found in 23.6% of the total sample (men 31.8%, women 8.9%) (17).

In Somalia, 61% of the population reported that they do use Khat, 18% report habitual use, and 21% are occasional users and its use has been reported to be present within all social groups and study done in 2005 revealed that 31% of Somali men were found to be current khat users (1, 18).

In a cross-sectional survey carried out in three towns in Southwestern Uganda, 32% of participants had a lifetime experience of khat chewing and 20% were current chewers (19).

In Ethiopia, in a rapid assessment study done on 3200 respondents predominantly consisting of street children, commercial sex workers and street vendors from Addis Ababa and 24 other regional cities and towns found that 30.5% of them had used Khat and also in a house-to-house survey in a rural community of Butajira including 10,468 adults, 56% reported lifetime khat chewing experience and the prevalence of current use was 50%. From these current users 17% of them reported taking it daily (20, 21).

In another house-to-house survey of a representative sample of 1,200 adults from a rural Ethiopian community, the current prevalence of khat chewing was found to be 31.7% (22) and also in the study among staff of Jimma University, the lifetime prevalence of khat chewing was found to be 46% and also the current prevalence of chewing was 30.8% (23). According to the World Drug Report 2004, in Ethiopia khat was the main drug of abuse among 75.6% of all patients who were treated for drug-related problems; in Kenya this figure was 14.3 (24).

### **2.1.2. In a student context**

One of the high risk groups for Khat chewing is the young population which includes students. So, different studies were done on these groups.

In a study done in Saudi Arabia, the overall prevalence of khat chewing in all the studied population of students was 21.4%. Khat prevalence was high in secondary schools (21.5%) compared to the colleges (15.2%) (25). In another study of Yemen, among 2,500 patients of the Sana'a University dental school, 61.1% were current khat chewers, 87.0% of men and 12.9% of women (26).

In a study done on college students in the North Western part of Ethiopia revealed that the lifetime prevalence of Khat chewing was 26.7% and the current prevalence was 17.5%. One hundred twenty students (10.9%) were both lifetime smokers and chewers. A study done in the

same region in 2007 also revealed 37.1%, life time prevalence rate of khat chewing and the current prevalence rate of chewing was 31.4% (27, 28).

In an older survey among 479 medical and paramedical students in a boarding college in northwestern Ethiopia, the prevalence rate of current use of khat was 22 % and also in the study done on Bahir Dar university students, One third of the respondents were found to be ever chewers and current khat chewing prevalence was 31.2% (29, 41). Alcohol & Khat were the most commonly used drugs in the study done on one private and one governmental high school in Addis Ababa and one governmental high school in Butajira. The study showed that 35.6%, 9.2% and 31.0% were ever users of Khat respectively (30). A cross-sectional study in Southwestern Ethiopia called Agaro also revealed that the current prevalence of khat chewing among secondary school students was 64.9% and also in the same region in a place called Jimma it was found to be 24.79% (7, 31, 32).

## **2.2. Factors associated with Khat chewing**

### **2.2.1. Attitude towards Khat Chewing**

Attitude towards Khat chewing plays a very key role in the habit of Khat chewing. According to a study done in Jimma university, 51% of the respondents were found to have negative attitudes towards khat chewing, nearly one third of them 42(35.5%) were indifferent and 16(4.0%) of them were found to have positive attitudes (23).

### **2.2.2. Socio- demographic characteristics**

In a study done in Saudi Arabia, from the total respondents, 37.7% of them were Male Khat chewers and 3.8% of them were Female Khat chewers (25).

Studies done in Jimma among university students showed that, 27% of male students and 46.74% of Muslim students were found to be khat chewers and also among the staff, the frequency of Khat chewing among males (33.0%) was higher as compared to females (20.0%) (23,32). Studies also done in Addis Ababa among adult population revealed that there was a significant association between Khat chewing and being male and Muslim religion (30).

In a study done in Agaro, 55.9% of high school students were Muslims and 27% of them were male Khat chewers and also in Butajira among adults, 53.0% were males and 92.5% were Muslim. There was also a significant association between age and Khat chewing in a study done in Agaro secondary school students (31, 33).

According to the study done in South Western Uganda, the majority of khat chewers were in the age range of 16 to 25 years and also in the North western Ethiopia, the mean age for starting khat chewing was 17.3 years (19,27).

Influence from the external also has a key role in Khat chewing. This was explained by researches done in Jimma university students where the presence of khat chewers in the family and among friends have also a positive association with khat chewing habit and also this was explained again by the study done in North Western Ethiopia where the presence of family members who chew Khat was a risk factor for chewing Khat (27, 32).

Significant association was also found between khat chewers from rural and urban areas. In the study done in Saudi Arabia, Khat chewers were more in urban areas (24.50%) than in rural areas (20.50%) and also in Addis Ababa and Butajira study among high school students, the percentages of ever use of Khat chewing were 9.2%, 35.6% & 31% in urban governmental high school, private high school & rural high school respectively (25,30).



### 2.2.3. Use of other substances

Different substances are significantly associated with the habit of Khat chewing. Studies revealed this association at different times and places.

In a study done in the South western part of Uganda, there was a clear correlation between khat chewing and the use of alcohol and tobacco (19). In a study done in the North Western part of Ethiopia showed that 13.1% of the respondents used both khat and cigarette, 26.9% khat and alcohol and also 13.3% of them have ever used khat, cigarette and alcohol (27).

In Butajira study among adults also, the proportion of smokers was significantly higher among Khat chewers (10.8%) than non-chewers (4.8%) and these Khat chewers were significantly more likely to be drinking coffee. This was also true among the staff and students of Jimma University. In the study on the staffs of Jimma University, 30.9% of the chewers smoke cigarettes and 42.3% of the chewers drink coffee while chewing and 59.4% took alcohol after khat chewing (23, 32, 33).

A study done SNNPR and Oromia region revealed that alcohol consumption and khat chewing were significantly associated with an OR = 5.33, 95% CI = (3.96, 7.18). There were significantly higher HIV cases among khat chewers who were drinking alcohol than in non chewers with an OR = 2.19, 95% CI = 1.39, 3.44). The combined use of both drugs seemed to have a more amplifying effect on the incidence of rate of HIV infections than either drug has individually and Multiple sexual practice was higher among chewer males than in non chewer males with an OR = 2.18, 95% CI = ( 1.28, 3.71) (34).

A national level study done showed that daily Khat intake was associated with unprotected sex with an adjusted OR (95% CI) = 2.26 (1.92, 2.67). Khat use was strongly associated with initiation of sexual activity with four-fold increased odds in both daily and weekly users.

The odds ratios for daily use were: adj. OR (95% CI) = 4.13 (3.26, 5.23); and for weekly Khat use: 4.18 (3.50, 4.99) (35).

### **2.3. Reasons for Khat chewing**

According to the studies done at different places and times, lots of reasons were given by different respondents concerning the use of Khat chewing.

A study done in 2007 in Yemen put reasons why students were chewing Khat. About 26 percent of students chew Khat believing that it helps them to stabilize for studying lessons and about 22 percent of them believe that it increases the number of studying hours. Some 20 percent say that chewing Khat helps them to stay up late at night for studying more lessons and 16 percent of them said that it makes them focus more on information (36).

The reported reasons by adults in Butajira were religious prayer, to pass time, to accompany or socialize with family members and to get more concentration at work and also among the staff of Jimma University were, to increase performance (58.5%) followed by relaxation (39.8%) and socialization (18.7%). 81.5% of these believe that chewing khat facilitates work and communication and hence results in peaceful relationships (23, 33).

In the study done in the North Western part of Ethiopia also showed that 40.5% of them use it to keep them alert while reading and 33% of them for relaxation (27). A large proportion of students (65%) in the private school used drugs for the purpose of relaxation and entertainment but in urban governmental & rural governmental schools used it because of social reasons as revealed in Butajira and Addis Ababa studies (30).

### **2.4. Consequences of Khat chewing**

Khat use has lots of consequences or problems in terms of its health, economic, social and academic or work performance impacts.

### **2.4.1. On Health**

Khat chewing results in different kinds of health problems directly or being associated with other substances. Different studies explained this situation at different times.

The prevalence of hypertension was significantly higher among Khat chewers (13.4%) than non-chewers (10.7%) (33). Khat chewing was significantly higher among the acute myocardial infarction case group than control group (OR = 5.0, 95% CI (1.9, 13.1)) and the heavy khat chewers having a 39-fold increased risk of acute myocardial infarction (5). Addiction and GI-problems like constipation were also mentioned as the main health problems of chewing khat, 47.3 % and 33.4 % respectively (37).

### **2.4.2. On Economy**

Khat affects the economy of an individual as well as at a country level. In Yemen, nearly 60% of the land cultivated for cash crops is devoted to khat growing. 27–30% of Yemen's ground water goes into khat irrigation (15). The amount of money spent on Khat affects the individual as well as the family of the individual who are dependent on her/him.

In Yemen, much time is spent in buying and chewing khat, affecting working hours and time with family. Based on the Household Budget Survey 1998, Yemenite households spent around 9-10% of their income on buying khat (38). In Djibouti, it was estimated that about one-third of all wages were spent on khat (7).

In the study done among college students in North West Ethiopia, the average amount of khat chewed each day by one individual was 52.4 gm and the average money spent per day by one chewer was 2.9 birr (27).

### **2.4.3. On academic performance**

Different studies showed that Khat chewing has a significant impact on performance of individuals academically and also the capacity to work.

Researches done at Sana'a University found that Khat has a negative impact on students' performance. Medical students who chew Khat to study achieved an average academic grade of 69.9, while students who never chewed Khat achieved an average grade of 71.03 and also among Jimma university students, the mean cumulative grade point average (CGPA) of non-chewers was found to be significantly higher than that of chewers (32,36).

So, the rational of the study is to assess the magnitude of khat chewing habit and the factors associated with it among preparatory school students who are part of the young generation and can make a great contribution to their country.

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### **3. Objectives**

#### **3.1. General objective**

- ❖ To assess Khat chewing and its associated factors among Preparatory school students in Addis Ababa.

#### **3.2. Specific Objectives**

- ❖ To determine the prevalence of Khat chewing among preparatory school students in Addis Ababa.
- ❖ To identify associated factors with Khat chewing among preparatory school students in Addis Ababa.
- ❖ To describe the relationship between Khat chewing habit & academic performance

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## **4. Methods**

### **4.1. Study Setting**

The Study was conducted in Addis Ababa, the capital City of Ethiopia in which it is located between 9 degrees latitude and 38 degrees longitude, at an altitude of 2200-2800 meters above sea level. It has a population of 2,738,248 (42). It is a place for head quarters of African Union & African Economic Commission and also for many embassies. The city is divided in to 10 sub cities. According to the published education statistics Annual Abstract in 2008/9, there were 693 primary and 154 secondary schools accounting a total of 847 schools. From the total of 154 secondary schools, 68 of them were giving preparatory program and from this only 13 of them were government owned, the rest were owned by different private, religious and public organizations. The total enrollment in the year 2008/9 was 30,254 in which males account 15,921 and females 14,333.

### **4.2. Study Design**

The study design was a School based cross – sectional study design which was used to assess Khat chewing and its associated factors among Preparatory school students in Addis Ababa, Ethiopia.

### **4.3. Source population**

The source population for this study was students learning in Preparatory schools of Addis Ababa during the study period.

### **4.4. Study population**

The study population was all students from the selected section of the selected preparatory school in Addis Ababa during the study period.

The inclusion criteria for this study was

- Students who were enrolled during 2010/11 academic year
- Students learning during the regular program

The exclusion criterias were

- Students who cannot read and write

#### 4.5. Sample Size

The sample size was calculated by using a formula for single proportion with an assumption of 35.6 % prevalence of Khat chewing in Private High school students of Addis Ababa (30) and with a marginal error of 3%, confidence interval of 95% and design effect of 1.5 because of using multi stage sampling technique. To compensate for non- response and incompleteness, 10% of the sample was added.

$$n = \frac{(Z_{\alpha/2})^2 \cdot P(1-P)}{d^2}$$

$$= \frac{(1.96)^2 \times 0.356(1-0.356)}{(0.03)^2}$$

$$= 979$$

Where, n = the sample size  
Z = Critical value= 1.96  
P= Prevalence= 35.6%  
d= Margin of error= 3%

Due to the use of multi stage sampling, the total number of sample calculated (979) was multiplied by 1.5 in order to correct the design effect and gives 1469. Finally, 10% compensation for non response and incompleteness was added and gives a total sample size of 1616.

### **Sample size calculation for associated factor**

**Cigarette smoking**      P= 13.1%

$$= (1.96)^2 \times \frac{0.131(1-0.131)}{(0.03)^2} = \underline{\underline{486}}$$

= Multiplying by 1.5 (design effect) = 729 and adding 10% non response rate gives a total sample size = **802**

➤ Finally the highest sample size was taken which was calculated for khat chewing i.e. **1616**.

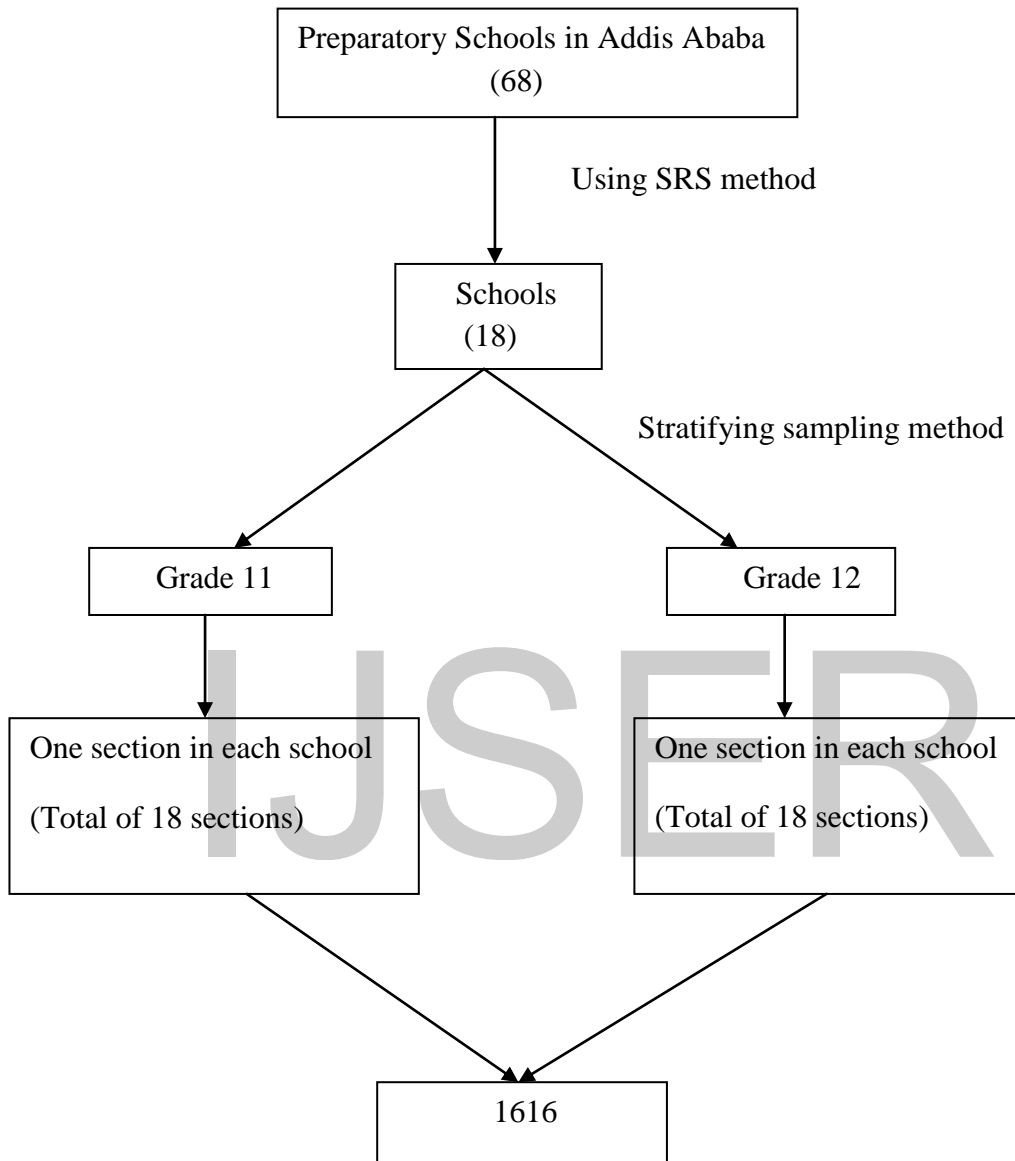
### **4.6. Sampling procedures**

First, the total number of sample (1616) which was calculated based on the single proportion formula was divided into estimated average number of students available in each section (45), by taking into consideration of governmental and non - governmental schools, to get the total number of sections which equals to 36 sections.

Then these 36 sections were divided into grade 11 and grade 12 in order to get the total number of Preparatory Schools to be studied which equals to 18 schools. From the 68 schools in Addis Ababa, 18 schools were selected by simple random sampling method. The selected preparatory schools were stratified into grade 11 and grade 12 by using grade as a stratifying variable. One section from each grade level (i.e. grade 11& 12) on the selected preparatory schools was selected by using simple random sampling method making a total of 36 sections. Finally all the students in the selected section were included in the study.



**Figure 1. Sampling procedure**



## **4.7. Variables**

### **4.7.1 Independent variables**

The independent variables were Socio- demographic characteristics of the students and their family, family income , knowledge and attitude towards khat use, family member chewing Khat, peer group chewing Khat , use of alcohol, cigarette smoking habit and use of Shisha.

### **4.7.2. Dependent variable**

The dependent variable was students' Khat chewing habit.

## **4.8. Data collection**

The data was collected from March1- 11, 2011 through a self administered questionnaire which was prepared in English and was translated into Amharic. The structured questionnaire was pretested on 5% of the total sample size in two sessions on preparatory school students from non selected schools in the city which was used in order to assess and take corrective measures on the clarity, length, completeness and consistency of the format. The data collection was facilitated by two Health officers, who were selected and trained about the process of data collection for one day by the principal investigator. The data was collected by having a discussion with school directors, unit leaders and teachers on the appropriate time for the process.

## **4.9. Data quality management**

The data collectors were given a two days training about the process of data collection. The structured questionnaire was pretested on 5% of the total sample size in two sessions on preparatory school students from non selected schools in the city which was used in order to assess and take corrective measures on the clarity, length, completeness and consistency of the format.

The process of data collection was strictly supervised by the principal investigator and the collected data was daily checked for completeness, accuracy and clarity by the data collectors and the principal investigator.

#### **4.10. Data analysis**

First the collected data was checked for completeness and inconsistencies manually on the hard copy and then it was entered first in to EPI INFO version 3.5.1 and cleaned repeatedly by running each variable with study subjects' identification number using ascending and descending sorting mechanism for checking accuracy, inconsistencies and missing values. The problems found were corrected by cross checking with the hard copies.

After the correction of the missing values and inconsistencies, the data was transferred into Statistical Package for Social Science (SPSS version 15.0) for analysis and again missing values were corrected there. Different measures of association including odds ratio, binary and multivariate logistic regression and independent sample t- test for comparison were used.

#### **4.11. Operational Definitions**

Non- Khat chewer: An individual who has never chewed Khat.

Current Khat chewer: An individual who was chewing Khat within 30 days preceding the study.

Ever Khat chewer: An individual who chewed Khat at least once in his/her life time.

Lifetime prevalence of khat chewing: The proportion of the study population who had ever chewed khat in their lifetime.

Current prevalence of chewing: The proportion of the study population, who were chewing khat within 30 days preceding the study.

Academic performance: Last semester academic result out of 100.

#### **4.12. Ethical Consideration**

Ethical clearance was obtained from Institutional Review Board of the university of Gondar and Addis Continental Institute of public Health. A formal letter of permission and support was taken and submitted to the concerned bodies.

The study participants were informed clearly and in detail about the importance of the study and about their right not to participate and stop at any time and, a written consent was obtained by ticking a “Yes” and “No” options, in which those who chose “ Yes” continued to respond and those who chose “ No” stopped responding. They were also informed about the confidentiality of the data and their identities would be removed to assure confidentiality.

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## 5. Result

### 5.1. Socio – demographic characteristics

One thousand five hundred twenty one (1521) students were included in the study. The respondents were predominantly of females (58.4%), an age of 18 years old and above (59.3%), with Amhara ethnicity (42.0%) and Orthodox Christian religion (66.6%). The mean age of the respondents was 17.9. The minimum age was 15 and the maximum was 26 years old. Majority of the respondents were from non-governmental schools (57.4%), 50.4% were grade 11 students and 54.2% of them were from the field of natural science.

Majority of the respondents (63.4%) were living with their mother and father and 15.5% of them were living with their mother only and 3.9 % of them were living alone. 37.2% and 35.4% of them said that their father and mother were in the education level of 9-12 grade respectively.

The minimum previous semester average Mathematics result was 39 and the maximum was 100 out of 100. The median was 70. For English subject, the minimum and maximum score were 38 and 100. (Median score of 78). The overall average previous semester total subject results out of 100 were 46 and 99 (minimum and maximum respectively) and the median was 74.

**Table 1: Socio-demographic characteristics of study subjects in preparatory schools, Addis Ababa, March 2011. (n=1521)**

Characteristics		Frequency	Percent (%)
Sex	Male	632	41.6
	Female	889	58.4
Age	<18 years	619	40.7
	>= 18 years	902	59.3
Ethnicity	Amhara	639	42.0
	Oromo	270	17.8
	Gurage	273	17.9
	Tigre	224	14.7
	Others	115	7.6
Religion	Orthodox Christian	1013	66.6
	Muslim	301	19.8
	Protestant	167	11.0
	Catholic	11	0.7
	Others	29	1.9
Type of school	Governmental	648	42.6
	Non-governmental	873	57.4
Grade level	Eleven	767	50.4
	Twelve	754	49.6
Field type	Natural	825	54.2
	Social	696	45.8

Education back ground of father	Illiterate	178	11.7
	1-8 grade	212	13.9
	9-12 grade	566	37.2
	>12 grade	565	37.1
Education back ground of mother	Illiterate	260	17.1
	1-8 grade	335	22.0
	9-12 grade	538	35.4
	>12 grade	388	25.5
Living with	Mother and father	965	63.4
	Mother only	236	15.5
	Father only	52	3.4
	Living alone	60	3.9
	Other	208	13.7

## **5.2 Magnitude of khat chewing**

The life time prevalence of khat chewing was found to be 19.9% and that of current prevalence was 8.0%. Eighty five (5.6%) of the respondents tried an eye opener (Chewed khat early in the morning).

More khat use was seen among Males, age 18 years and above, Amhara ethnicity, Orthodox religion, non-governmental school, twelve grade and social science students. The minimum age for initiation of khat was 7 years old and the mean age of initiation was 15.8 years old. The main sources of money for khat were friends (35.6%) followed by family (31.7%) and from their own

(24.1%). Sixteen (5.3%) of khat chewers said that they chewed for more than 22 days in the past 30 days prior to the study.

Eighty two (27.1%) of khat chewers said that they share other people's khat, ask friends /family to buy it (17.8%), 6.9% borrow money from someone and 3.3% get credit from seller during lack of money for buying khat. From those khat chewers, 13.2% of them can stay only for less than seven days, 5.3% for 8-14 days, 3.6% for 15-21 days and 76.2% for more than 21 days without chewing khat.

Khat houses were the major sources for getting khat (52.1%) followed by friends (30.4%) and 4.3% from Shop/café/restaurant. The usual places for chewing khat were friends house (35.0%) secondly, Khat houses (29.4%) and at home (17.2%). 38.6% of khat chewers preferred to chew khat during the weekend times, 22.8% during the afternoon and 18.8% said that they can chew at any time. 58.7% of the respondents said that they usually chew khat with their peer friends and 20.8% with their girl/boy friend. The amount of time spent on khat chewing was with a minimum of 15 minutes and maximum of 480 minutes (8 hours) and the mean duration of stay was 2.5 hours.

Substances which were being used by the students were alcohol, cigarette, Mariwana/Hashish and Shisha. 38.5% of respondents had drunk alcohol, 9.7% smoked cigarette, 5.1% used Mariwana/Hashish and 9.3% had used Shisha in their life time. The study showed that many things were used with khat. Majority of respondents (43.9%) use soft drinks, Cigarette (36.3%), alcohol (25.7%), sugar (23.4%) and coffee (16.5%). Go out to drink alcohol (61.2%), studying/reading (44.7%), go to sleep (39.4%) were the major activities mentioned by the respondents after chewing khat.



**Table 2. Prevalence of substance use among preparatory school students in Addis Ababa, March 2011.**

<b>Substance</b>	<b>Frequency</b>	<b>Prevalence (95% CI)</b>
<b>Khat chewing</b>		
Ever	303	19.92(17.97,21.99)
Last 12 months	188	12.36(10.78,14.09)
Current (Last 30 days)	122	8.02(6.73,9.47)
<b>Alcohol drinking</b>		
Occasionally (Sometimes)	486	31.95(29.64,34.33)
Frequently(Once a week)	100	6.57 (5.41,7.91)
<b>Cigarette smoking</b>		
Occasionally(Sometimes)	98	6.44(5.29,7.76)
Frequently(once a week)	50	3.29(2.48,4.28)
<b>Mariwana/Hashish/ use</b>		
Occasionally (Sometimes)	56	3.68(2.82,4.72)
Frequently (Once a week)	22	1.45(0.93,2.15)
<b>Shisha use</b>		
Occasionally (Sometimes)	109	7.17(5.95,8.55)
Frequently(Once a week)	33	2.17(1.52,3.00)

Different reasons for chewing khat were given by khat chewers. The major reasons mentioned were for relaxation with friends 184 (60.7%), peer pressure 67 (22.1%) and to overcome stressful academic work 48 (15.8%) respectively.

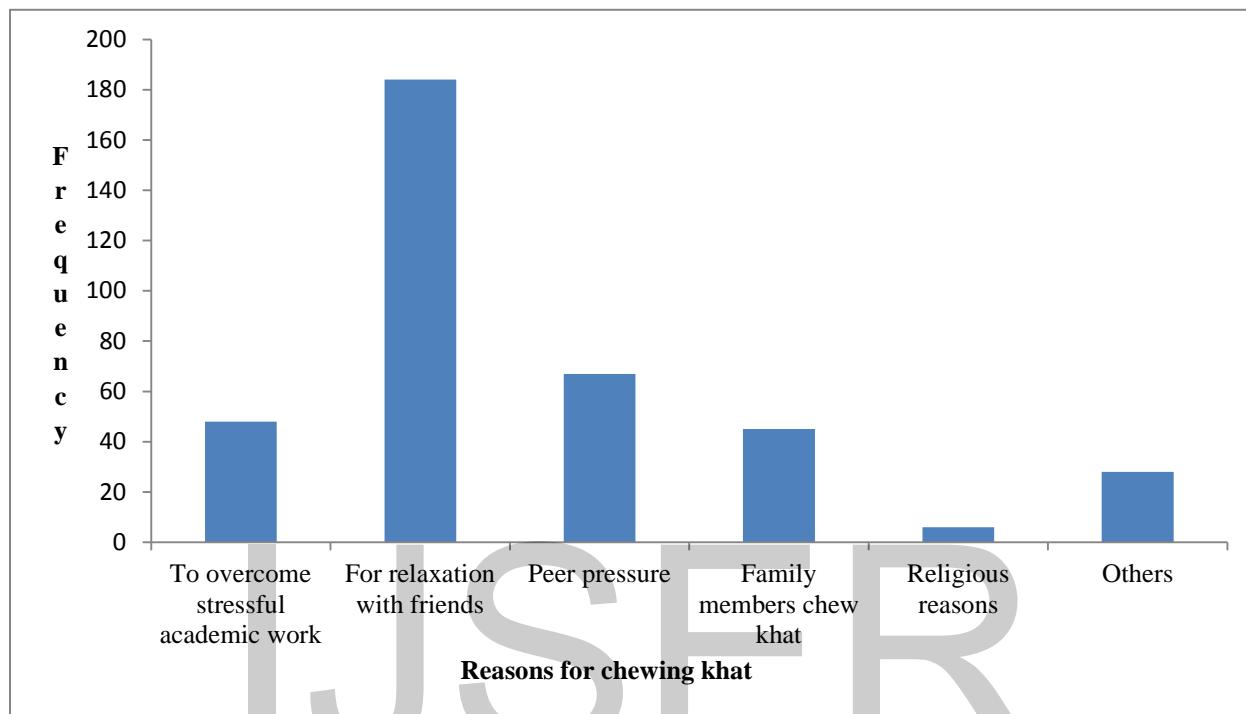


Figure 2 . Reasons for chewing Khat in preparatory school students of Addis Ababa, March 2011.

Two hundred eighteen (71.9%) of khat chewers had a feeling to stop chewing khat because of knowing that khat is bad for health (46.5%), spending lots of money for buying khat (9.6%), their families don't like it (6.3%) and their friends don't like it (1.7%). 34.5% of respondents mentioned that there is a family member chewing khat and also 42.2% had a friend chewing khat. From the total respondents 205 (13.5%) had history of sexual intercourse and the mean number of sexual partners were 3.8 persons. Regarding the use of condom after khat chewing, 28.6% of the respondents said that they always use condom, 36.1% use it some times and 11.3 % of them never used it.

The majority of the respondents (96.6%) had information about khat and 68.6% of them said that khat is bad for health, 43.4% said it is good for studying and 21.9% of them responded that it makes feel good. The main sources of this information were Mass Medias (66.3%), friends (43.2%), family (27.8%) and schools (27.5%). Most of the respondents (78.1%) had a negative attitude towards khat chewing and had a plan not to chew khat in the future and 7.9 % of them had a positive attitude and planned to chew khat but the rest 14.0 % were indifferent.

Various recommendations were mentioned by the respondents in order to prevent and control khat chewing habit. The main ones were educating students through different Mass Medias ( 46.9%), including substance abuse as part of the educational curriculum (46.8%), closing of khat selling places 42.9%, establishing recreational places around schools (7.8%) and 6.4% of them said that establishing laws and regulations for eradication of the plant from the country can help in solving the problem.

### **5.3. Factors associated with khat chewing**

#### **5.3.1 . khat chewing habit and associated factors**

The Bivariate analysis indicated that age ( $p < 0.001$ ), sex ( $p < 0.001$ ), religion ( $p = 0.025$ ), type of school ( $p < 0.001$ ), grade level ( $p = 0.047$ ), field of study ( $p < 0.001$ ), age of start of khat chewing ( $p < 0.001$ ), living with mother only ( $p = 0.025$ ), living alone ( $p < 0.001$ ), father's education background ( $p = 0.045$ ), family member chewing khat ( $p < 0.001$ ), friends chewing khat ( $p < 0.001$ ) were significantly and positively associated with khat chewing habit. Additionally, ever use of alcohol ( $p < 0.001$ ), smoking of cigarette ( $p < 0.001$ ), use of Marijuana/Hashish ( $p < 0.001$ ), ever use of Shisha ( $p < 0.001$ ) and ever had sex were also significantly associated with khat chewing habit.

Finally, the multivariate logistic regression model for Khat chewing habit as indicated in table 3&4 showed that Muslim religion [Adjusted OR (95 %CI) =3.05(1.40,6.67)]; being grade 12 [Adjusted OR (95% CI) =2.21(1.21,4.05)]; social science field [Adjusted OR (95% CI) = 1.74 (1.01,2.99)] and having a friend chewing khat [Adjusted OR (95%CI) = 6.94 (3.13,15.38)] were found out to be more likely to chew khat after controlling for possible confounding variables.

Additionally, those who ever drank alcohol [Adjusted OR (95%CI) = 2.93 (1.40, 6.13)]; ever smoked cigarette [Adjusted OR (95% CI) = 8.04 (4.11, 15.71)] and ever used Shisha [Adjusted OR (95% CI) = 7.19 (3.53, 14.64)] were more likely to chew khat.

Age of start of khat chewing of 16 years old and above [Adjusted OR (95%CI) = 0.21 (0.11, 0.38)] and also having a father with educational background of more than grade 12 were found out to be less likely to chew khat. [Adjusted OR (95 %CI) = 0.37 (0.14, 0.95)].

But age, sex, type of school, living with mother only, living alone, family members chewing khat, ever use of Mariwana/Hashish and ever had sex which were associated factors in Bivariate analysis were not finally associated with khat chewing habit after controlling for possible confounding variables.

**Table 3. Distribution of khat chewing habit by socio - demographic characteristics among preparatory school students in Addis Ababa, March 2011.**

Variable		Khat chewed last 12 months		Crude OR (95%CI)	Adjusted OR (95%CI)
		Yes	No		
Age	<18	44 (7.1%)	575 (92.9%)	1.00	1.00
	>=18	144 (16.0%)	758 (84.0%)	2.48 (1.74,3.54)	1.91 (0.98,3.72)
Sex	Male	113 (17.9%)	519 (82.1%)	2.36 (1.73,3.23)	0.76 (0.43,1.34)
	Female	75 (8.4%)	814 (91.6%)	1.00	1.00
Religion	Christian	130 (10.9%)	1061 (89.1%)	1.00	1.00
	Muslim	47 (15.6%)	254 (84.4%)	1.51 (1.05,2.17)	3.05 (1.40,6.67)*
Type of school	Governmental	54 (8.3%)	594 (91.7%)	1.00	1.00
	Non-governmental	134 (15.3%)	739 (84.7%)	2.00(1.43,2.79)	0.94 (0.53,1.69)
Grade level	Eleven	82 (10.7%)	685 (89.3%)	1.00	1.00
	Twelve	106 (14.1%)	648 (85.9%)	1.37 (1.01,1.86)	2.21 (1.21,4.05)*
Field of study	Natural	73 (8.8%)	752 (91.2%)	1.00	1.00
	Social	115 (16.5%)	581 (83.5%)	2.04 (1.49,2.79)	1.74 (1.01,2.99)*
Age khat started	<16	102 (56.4%)	79 (43.6%)	1.00	1.00
	>=16	86 (6.4%)	1254 (93.6%)	0.05 (0.04,0.08)	0.21 (0.11,0.38)*
Living with	Both mother and father	101 (10.5%)	864 (89.5%)	1.00	1.00
	Mother only	37 (15.7%)	199 (84.3%)	1.59(1.06,2.39)	1.05 (0.53,2.11)
	Father only	9 (17.3%)	43 (82.7%)	1.79(0.85,3.78)	0.41 (0.11,1.54)
	Alone	20 (33.3%)	40 (66.7%)	4.28(2.41,7.60)	1.86 (0.58,5.99)

Father education background	Illiterate	27 (15.2%)	151 (84.8%)	1.00	1.00
	1-8 grade	20 (9.4%)	192 (90.6%)	0.58(0.32,1.08)	0.37 (0.12,1.08)
	9-12 grade	83 (14.7%)	483 (85.3%)	0.96(0.60,1.54)	0.49 (0.20,1.19)
	>12 grade	58 (10.3%)	507 (89.7%)	0.64(0.39,1.05)	0.37 (0.14,0.95)*
Family member chewing khat	Yes	102 (19.4%)	423 (80.6%)	2.55(1.87,3.48)	1.00 (0.56,1.77)
	No	86 (8.6%)	910 (91.4%)	1.00	1.00
Friends chewing khat	Yes	177 (27.6%)	465 (72.4%)	30.04 (16.17,55.80)	6.94 (3.13,15.38)*
	No	11 (1.3%)	868 (98.7%)	1.00	1.00

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**Table 4. Distribution of khat chewing habit by factors associated with it among preparatory school students in Addis Ababa, March 2011.**

Variable		Khat chewed last 12 months		Crude OR (95%CI)	Adjusted OR (95%CI)
		Yes	No		
Ever drank alcohol	Yes	156 (26.6%)	430 (73.4%)	10.24 (6.88,15.23)	2.93 (1.40,6.13)*
	No	32 (3.4%)	903 (96.6%)	1.00	1.00
Ever smoked cigarette	Yes	110 (74.3%)	38 (25.7%)	48.06 (31.14,74.17)	8.04 (4.11,15.71)*
	No	78 (5.7%)	1295 (94.3%)	1.00	1.00
Ever used Mariwana/ Hashish	Yes	64 (82.1%)	14 (17.9%)	48.63 (26.50,89.22)	2.03 (0.79,5.23)
	No	124 (8.6%)	1319 (91.4%)	1.00	1.00
Ever used Shisha	Yes	107 (75.4%)	35 (24.6%)	48.99 (31.46,76.28)	7.19 (3.53,14.64)*
	No	81 (5.9%)	1298 (94.1%)	1.00	1.00
Ever had sex	Yes	78 (38.0%)	127 (62.0%)	6.73 (4.78,9.49)	1.12 (0.56,2.21)
	No	110 (8.4%)	1206 (91.6%)	1.00	1.00

**N. B.**

\* = Significant

1.00 = Reference

Adjusted for age, sex, religion, type of school, grade level, field of study, age started khat, living with, father education background, family members chewing khat, friends chewing khat, ever drank alcohol, ever smoked cigarette, ever used Marijuana/Hashish, ever used Shisha and ever had sex.

#### 5.4 Khat chewing habit and academic performance

There was a significant difference in academic performance on those who chewed khat and those who didn't chew khat in the last 12 months. Those who chewed khat scored an average Mathematics result of 66.58 but those who didn't chew scored 71.64 and also in their English result 74.74 and 77.31 were the scores for khat chewers and non- chewers respectively. The overall total subject average result also revealed that there was a significant difference in the academic result for khat chewers and non- chewers (71.63, 74.78) respectively.

**Table 5. Association of khat chewing and academic performance (last semester result) among preparatory school students in Addis Ababa, March 2011.**

Variable		Mean Mathematics result	t -value	P- value	Mean difference	Confidence interval for the Mean difference
Khat chewed last 12 months	Yes	66.58	5.388	0.000	5.06	(3.22,6.91)
	No	71.64				

Variable		Mean English result	t- value	P- value	Mean difference	Confidence interval for the Mean difference
Khat chewed last 12 months	Yes	74.74	2.911	0.009	2.57	(0.84,4.30)
	No	77.31				

Variable		Mean total subjects result	t- value	P- value	Mean difference	Confidence interval for the Mean difference
Khat chewed last 12 months	Yes	71.63	4.485	0.000	3.15	(1.63,4.66)
	No	74.78				



## 6. Discussion

According to this study, Muslim religion, being grade 12, social science field, having a friend chewing khat, use of other substances i.e. alcohol, cigarette and Shisha , age of start of khat chewing and father's education back ground of above 12<sup>th</sup> grade were found out to be significantly associated with khat chewing habit. Additionally those who chewed khat scored a lower academic result as compared to non chewers.

The life time prevalence of khat chewing obtained in the present study was 19.9 % and for current users 8.0%. This figure is lesser as compared to the study done in 2002 in the north western part of Ethiopia where the life time prevalence of Khat chewing was 26.7% and the current prevalence was 17.5% and also in a study done in Jimma university students, the current prevalence was 24.8%. (27,32). The possible explanations could be; the studies were done in a college setting where students are exposed to a new environment, stressful academic situation, new way of life, new friends and absence of family who can control their daily activities may predispose students to use different kinds of substances including khat but these situations are less in the usual places of living as compared to college setting.

In the same region in Gondar town, in the year 2007, a study was done among in school and out of school youth (15-24 years of age) and revealed that the life time and current prevalence of khat chewing was 37.1% and 31.4% respectively which is higher than the current study prevalence (28). The reason could be, the study in Gondar included a wider age group as compared to the current study in which most of the students are in the age of 17&18 years old, Additionally, those youth who are out of school were included in the study and they are possibly be involved in different kinds of activities including use of substances as compared to in school youth and finally could have its own impact on the magnitude of khat chewing habit.

In another study done on Bahir Dar university students, one third of the respondents were found to be ever khat chewers and current khat chewing prevalence was 31.2% which is higher than the current study findings (41). The possible explanation could be; Bahir Dar is one of the known khat growing town where the students can have a better access to khat which finally could have increased the prevalence.

The prevalence of khat chewing in a study done in 1998 was 35.6% in one private high school and 9.2% in another governmental high school of Addis Ababa and also 31.0% in governmental high school of Butajira (30). The magnitude in governmental high school of Butajira is higher than the current study (17.1%). It could possibly be due to; the town is a place for cultivation of khat so that there is a better access to get khat in that area. And also the prevalence in private high school of Addis Ababa is less than the current study (22.0%) possibly because the study was done only in one school.

In a study done in college and high school students of Jazan region, Saudi Arabia, the overall prevalence of khat chewing was 21.4% (colleges (15.2%) and schools (21.5%)) which is higher than the current study (25). This could possibly be due to the study setting which includes both college and high school students which had a different magnitude result.

According to this study, 58.7% of khat chewers usually chew khat with their peer friends which is similar with the study done in 2004 on 12 woredas of the country where the common reason for chewing khat in both studies was for relaxation with friends (40).

The usual place for khat chewing in the previously mentioned study was at home which is different from the finding of this study which is at friend's house (35.0%). This difference possibly came from primarily on the difference in the study setting which the first one was done at a country level and secondly the study subjects were the general population but in the current

study, the study subjects were students where most of them are under the control of their families and rather prefer to chew khat in their friends house since their main reason indicated by them to chew khat was for relaxation with their friends (40).

The current study revealed that the usual time for students to chew khat was during the weekend times but in the study done in 2007 was during the afternoon time. This difference could be related with the need of appropriate time for students to enjoy with friends and prefer to chew khat during the weekends since this are the days where students take rest (40).

The amount of time spent on khat chewing at a time in this study was 2.5 hours which is exactly the same with the study done on Jimma university staffs in 2004. In another study done in Yemen indicated that some students spent up to nine hours a day chewing khat and 36% of the respondents spent four hours per day and another 27 % of them said they spent five hours a day. The possible explanation could be the difference in the study setting in which the current study was done in a school but the later ones were done in a college/university setting where most of the students chew khat for the purpose of improving their academic performance as explained in different studies (23, 36).

According to this study, majority of students (58.7%) chew khat with their peer friends'. The magnitude is less than the study done among staffs of Jimma University where 72.1 % of khat chewers chew khat with their friends. This could be related with long period of stay with friends at a university level as compared to school level (23).

According to this study, the major reasons why students chew khat were primarily for relaxation with friends (60.7%) followed by peer pressure (22.1%) and to overcome stressful academic work (15.8%). A study done in 2002 in the north western part of Ethiopia showed that the reasons claimed by the students to chew khat were for reading/studying (40.5%) and for

relaxation with friends (33.0%) and also in a study on Jimma university staffs, 58.5% of them used khat to increase their performance and 39.8% said for relaxation with friends (23,27).

Studies done in Jimma town in 2006 on students of college of agriculture, in 2008 on Medical and Health officer students and in 2009 on Bahir Dar university students also showed that to increase academic performance and for relaxation with friends were the main reasons for chewing khat which supported the findings of the current study and also previously mentioned studies (39, 41, 43). This difference could possibly be related with the presence of stressful academic situation in a college setting as compared to school setting. But in the current study since it was done in a school and most of the students are teenagers who want to try new things and can be convinced by their friends and may try to chew khat for the purpose of relaxation.

The minimum age for starting khat chewing on the study done in the north western Ethiopia was 7 years old which is exactly the same with the current study and also the mean age for initiation was 15.8 years old which is very much closer with the study done in Agaro (14.6 years) and North western Ethiopia (16.4 years). This showed that the above ages are in the age group called teenage in which those who are in this period want to try everything by themselves and can be exposed to different kinds of substances (27, 31).

Additionally the study indicated that the prevalence of khat chewing increased with grade level (11th (18.5%), 12th (21.4%)) which supported the studies done on Ethiopian medical and paramedical students and in college and high school students of Jazan region Saudi Arabia in 2009 . Additionally findings of Bahir Dar university revealed that there was a significant association between year of study and khat chewing habit ( $p < 0.001$ ) (25, 29, 41).

Muslim religion was significantly associated with khat chewing habit and this finding is in line with the studies done on Jimma university staffs and also in the study done in 2004 on the same university but on students. The findings of high school students of Agaro, Addis Ababa and Butajira studies are also in agreement with the current study (23, 30, 31, 32).

The study also revealed that having a father with educational background of above grade 12 was negatively associated with khat chewing habit which means that it is preventive. Even if i couldn't get any literature supporting this result but this could be related with the increase in knowledge acquired as grade level increases and could have an influence on the knowledge and behaviour of children.

The present study indicated that khat chewing is significantly associated with the presence of a friend chewing khat which is in agreement with the study done on students of Jimma University and colleges of North western Ethiopia (27, 32).

The study done in 2004 in south western Uganda indicated that there was a clear correlation between khat chewing and the use of alcohol and tobacco; and in 2007 in the north western part of Ethiopia, 13.1% of the respondents used both khat and cigarette, 26.9% khat and alcohol and also 13.3% of them have ever used khat, cigarette and alcohol. The study done in 2002 in the same place also supports the above studies (19, 27, 28). The previously mentioned studies are in line with the current study where khat chewing was significantly associated with the use of alcohol, cigarette smoking and use of Shisha.

According to the current study those who chew khat had a lower academic performance as compared with those who didn't chew khat. Different studies done at different times and places supported this finding. A study done in Yemen on medical and health science students showed that those who chewed khat to study achieved an average academic grade of 69.9 but those who

didn't chew achieved 71.03 and also in the study done in 2002 on Jimma university students in Jimma revealed that the mean cumulative grade point average (CGPA) of non-chewers was found to be significantly higher ( $p < 0.001$ ) than that of chewers and also in 2008 in the same university revealed that there was statistically significant difference ( $p < 0.05$ ) between the mean CGPA of chewers ( $2.77 \pm 0.43$ ) and non-chewers ( $2.89 \pm 0.40$ ) (32,36).

This study indicated that 78.1% of respondents had a negative attitude towards khat chewing and had a plan not to chew khat in the future and 7.9 % of them had a positive attitude and planned to chew khat. But in the study done on Jimma university staffs, 91.1% of the respondents had a plan to stop chewing khat in the future and only 4.0% of them had a positive attitude on khat chewing (23). The possible explanation could be on the difference in the study subjects used in both studies. In Jimma study, university instructors were the study subjects for the study who are in a better knowledge and attitude that can even convince others not only for themselves and better plan their future as compared to high school students.

### **Strengths of the study**

- ❖ Adequate sample size which can help greatly in generalization of the study
- ❖ The presence of the principal investigator in every selected school which could decrease the non response and information bias.

### **Limitations of the study**

- ❖ It is a self reported study in which some students might not give reliable information and might underestimate the magnitude of the habit.

## 7. Conclusion

The study revealed that the prevalence of khat chewing habit is fairly low. Religion, grade level, field of study, having a friend chewing khat, use of alcohol, cigarette and Shisha were found to be significantly associated with khat chewing habit.

Additionally, those students who started to chew khat at early age are at high risk of chewing khat later in their life.

There was a significant difference in academic performance of khat chewers and non- chewers which showed that Khat chewing didn't help to improve academic performance of students rather decreases their capacity.

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## 8. Recommendations

- ❖ Increasing awareness about the potential dangers of substance abuse in general through different mass Medias including in religious places.
- ❖ Including substance abuse as part of the educational curriculum.
- ❖ Expanding healthy recreational places with fair price for students
- ❖ Developing a close communication between parents and schools
- ❖ Strict laws and regulations should be established by schools
- ❖ Free discussion between parents and children
- ❖ Closing of khat selling places around schools

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## 10. Annexes

### 10.1. Consent form

#### 10.1.1. In English

### INFORMATION AND CONSENT SHEET

#### JOINT MPH PROGRAM, ADDIS CONTINENTAL INSTITUTE OF PUBLIC HEALTH WITH UNIVERSITY OF GONDAR ADDIS ABABA, ETHIOPIA

##### Study information sheet

Dear students! This is a self administered questionnaire prepared to assess Khat chewing habit and its associated factors among preparatory school students in Addis Ababa.

The questionnaire has a total of 47 questions and it will take you about 15-20 minutes to fill out the form. Please read each questions carefully and select the most appropriate choice that suits you. If you have any doubt, inquiry or ambiguities don't hesitate to ask your invigilator.

In order to know its magnitude and associated factors, clear and reliable information should be given from your side. The information you give, will help to make realistic analysis and propose very important interventions. The answers are completely confidential. You have the right not to participate and to withdraw from the study at any time.

##### Study consent

- Are you willing to participate in the study? Make a tick (√) on your choice.

Yes

No

Name of school \_\_\_\_\_

Signature of the student \_\_\_\_\_

Date \_\_\_\_\_

### 10.1.2. In Amharic

#### የመልእክት እና የስምምነት ቅጽ

አዲስ ኮንቲኔንታል የጤና አጠባበቅ ኢንሱራንስ ከጎንደር ዩኒቨርሲቲ ጋር በጋራ የሚሰጡት የማስተርስ ዲግሪ በጤና አጠባበቅ የትምህርት ዘርፍ፣ አዲስ አበባ ፣ ኢትዮጵያ

#### የጥናቱ መልእክት መግለጫ

ወደ ተማሪዎች ፡ ይህ መጠይቅ በፕሪፓራቶሪ ትምህርት ቤቶች ውስጥ የጫት ተጠቃሚውን መጠንና ተያያዥ ጉዳዮች ለማጥናት የሚደረግ በራሳችሁ የሚሞላ መጠይቅ ነው። መጠይቁ በውስጡ 47 ጥያቄዎች ሲኖሩት ለመሙላት በአማካይ ከ15 እስከ 20 ደቂቃ ሊወስድባችሁ ይችላል። እባካችሁ ጥያቄዎቹን በጥንቃቄ አንብባችሁ የሚስማማችሁን መልስ ብቻ ስጡ ። በመጠይቁ አሞላል ዙሪያ ጥራጣሬ ፣ ጥያቄዎች እና ያልገቧችሁ ነገሮች ካሉ መጠይቅ ትችላላችሁ።

የጫት ተጠቃሚውን መጠን እና ተያያዥ ጉዳዮች ለማወቅ ከእናንተ ግልፅ፣ ትክክለኛና ተአማኒነት ያለው መልስ መንፀባረቅ ይኖርበታል። ከምትሰጡኝ መልስ በመነሳት ተአማኒነት ያለው ጥናት በመስራት የተለያዩ መፍትሄዎች ለማዘጋጀት ይረዳኛል። የምትሰጡኝ መልስ በሚሰጥ የተጠበቀ ነው። በጥናቱ የመሳተፍ ወይም ያለመሳተፍ እንዲሁም በማንኛውም ጊዜ የማቋረጥ መብት አላችሁ።

#### የጥናቱ ስምምነት መግለጫ

በጥናቱ ውስጥ ለመሳተፍ ፍቃደኛ ነህ/ሽ? ምርጫህን/ሽን ከስር በተዘጋጀው ሳጥን ውስጥ የ(✓) ምልክት አድርግ/ጊ

አዎ ፈቃደኛ ነኝ

ፍቃደኛ አይደለሁም

የትምህርት ቤቱ ስም \_\_\_\_\_

የተማሪው ፊርማ \_\_\_\_\_

ቀን \_\_\_\_\_

## 10.2. Questionnaire

### 10.2.1. In English

#### QUESTIONNAIRE ON ASSESSMENT OF KHAT CHEWING HABIT AMONG PREPARATORY SCHOOL STUDENTS IN ADDIS ABABA

<b>I. SOCIO-DEMOGRAPHIC CHARACTERISTICS</b>		
<b>S.No</b>	<b>Questions</b>	<b>Responses</b>
1	How old are you?	<input type="text"/> <input type="text"/>
2	What is your sex?	1. Male 2. Female
3	What is your Ethnicity?	1. Amhara 2. Oromo 3. Gurage 4. Tigre 88. Others (Specify) _____
4	What is your religion?	1. Orthodox Christian 2. Muslim 3. Protestant 4. Catholic 88. Others (Specify) _____
5	What is the type of school that you are learning?	1. Governmental 2. Non- governmental
6	Which grade are you?	1. Eleven 2. Twelve
7	Which field are you attending?	1. Natural 2. Social
8	What was your average result out of 100% in the previous semester for the following subjects? 1. Mathematics  2. English	<input type="text"/> <input type="text"/>  <input type="text"/> <input type="text"/>
9	What was your average result out of 100 % of the total subjects in the previous semester?	<input type="text"/> <input type="text"/>



10	With whom are you living?	<ol style="list-style-type: none"> <li>1. With both mother and father</li> <li>2. With my mother only</li> <li>3. With my father only</li> <li>4. I live alone</li> <li>88. Other (Specify) _____</li> </ol>					
11	What is the education background of your father? (Write the completed years of school. If illiterate put 00 inside the box separately)	<ol style="list-style-type: none"> <li>1. Illiterate</li> <li>2. 1-8 grade</li> <li>3. 9-12 grade</li> <li>4. &gt;12 grade</li> </ol>					
12	What is the education back ground of your mother? (Write the completed years of school. If illiterate put 00 inside the box separately)	<ol style="list-style-type: none"> <li>1. Illiterate</li> <li>2. 1-8 grade</li> <li>3. 9-12 grade</li> <li>4. &gt;12 grade</li> </ol>					
13	What is the average monthly income of your family? (In birr)	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>					
<b>II. QUESTIONS ABOUT THE USE OF KHAT</b>							
14	Have you ever tried to chew Khat?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>					
15	Did you chew khat in the last twelve months?	<ol style="list-style-type: none"> <li>1. I never chewed Khat</li> <li>2. Yes</li> <li>3. No</li> </ol>					
16	Did you chew Khat in the last 30 days?	<ol style="list-style-type: none"> <li>1. I never chewed Khat</li> <li>2. Yes</li> <li>3. No</li> </ol>					
17	How many days did you chew khat in the last 30 days?	<ol style="list-style-type: none"> <li>1. I never chewed Khat</li> <li>2. I didn't chew Khat last month</li> <li>3. 1-7 days</li> <li>4. 8-14 days</li> <li>5. 15-21 days</li> <li>6. 22 or more days</li> </ol>					
18	How old were you when you first tried chewing khat? (If chewer put your age inside the box)	<ol style="list-style-type: none"> <li>1. I never chewed Khat</li> <li>2. <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> </li> </ol>					
19	Where do you usually get money for khat?	<ol style="list-style-type: none"> <li>1. I never chewed khat</li> <li>2. From family</li> <li>3. My own</li> <li>4. From friends</li> <li>88. Other (Specify) _____</li> </ol>					

20	What do you do if you don't get money for khat?	<ol style="list-style-type: none"> <li>1. I never chewed Khat</li> <li>2. I will ask my friends/family to buy it</li> <li>3. I will borrow money from some one</li> <li>4. I will get credit from seller</li> <li>5. I will share other people's khat</li> <li>88. Other (Specify) _____</li> </ol>
21	For how many days can you stay without chewing khat?	<ol style="list-style-type: none"> <li>1. I never chewed khat</li> <li>2. Less than 07 days</li> <li>3. 8-14 days</li> <li>4. 15-21 days</li> <li>5. More than 21 days</li> </ol>
22	Where do you usually get khat?	<ol style="list-style-type: none"> <li>1. I never chewed khat</li> <li>2. Khat house</li> <li>3. Shop/café/restaurant</li> <li>4. From friends</li> <li>88. Others (Specify) _____</li> </ol>
23	Where do you usually chew khat?	<ol style="list-style-type: none"> <li>1. I never chewed Khat</li> <li>2. At home</li> <li>3. At Khat house</li> <li>4. At my friend's house</li> <li>88. Other (Specify) _____</li> </ol>
24	When do you usually chew khat?	<ol style="list-style-type: none"> <li>1. I never chewed Khat</li> <li>2. In the afternoon</li> <li>3. At night</li> <li>4. On weekends</li> <li>5. On holidays</li> <li>6. At any time</li> <li>88. Other (Specify) _____</li> </ol>
25	With whom do you usually chew khat?	<ol style="list-style-type: none"> <li>1. I never chewed Khat</li> <li>2. with my peer friends</li> <li>3. with my family</li> <li>4. with my girlfriend/boy friend</li> <li>5. with anybody in that occasion</li> <li>88. Other (Specify) _____</li> </ol>
26	Have you ever chewed khat early in the morning (eye-opener)?	<ol style="list-style-type: none"> <li>1. I never chewed Khat</li> <li>2. Yes</li> <li>3. No</li> </ol>

27	On average, how much time do you spend on Chewing khat?	1. I never chewed Khat 2. <input type="text"/>
28	Why do you chew khat? (Multiple answers is possible)	1. I never chewed khat 2. To overcome a stressful academic work 3. For relaxation with friends 4. Peer pressure 5. Family members chew khat 6. Religious reasons 88. Others (Specify) _____
29	What do you usually take with khat?	1. I never chewed khat 2. I drink alcohol 3. I drink coffee 4. I smoke cigarette 5. I drink soft drinks 6. I use sugar 88. Other (Specify) _____
30	What do you usually do after Chewing khat?	1. I never chewed khat 2. Go out to drink alcohol 3. Studying/reading 4. Have sex 5. Go to sleep 88. Other (Specify) _____
31	Have you ever felt that you need to stop Chewing khat?	1. I never chewed Khat 2. Yes 3. No
32	What is your reason for feeling to stop Chewing khat?	1. I never chewed khat 2. I have no feeling to stop chewing khat 3. My families don't like it 4. My friends don't like it 5. I'm spending a lots of money for khat 6. I know that khat is bad for health 88. Other (Specify) _____

**III. ABOUT FACTORS ASSOCIATED WITH KHAT CHEWING**

33	How frequent do you drink alcohol?	1. Never 2. Occasionally (Some times) 3. Frequently (at least once/week)
34	How frequent do you smoke cigarette?	1. Never 2. Occasionally (Some times) 3. Frequently (at least once/week)

35	How frequent do you use marijuana/Hashish?	1. Never 2. Occasionally (Some times) 3. Frequently (at least once/week)
36	How frequent do you use Shisha?	1. Never 2. Occasionally (Some times) 3. Frequently (at least once/week)
37	Do any of your family members chew khat?	1. Yes 2. No
38	Do any of your friends chew khat?	1. Yes 2. No
39	Have you ever had sexual intercourse?	1. Yes 2. No
40	During your life, with how many people have you had sexual intercourse?	1. I never had sex 2. <input type="text"/> <input type="text"/>
41	Do you usually have sex after chewing khat?	1. I never chewed khat 2. I never had sex 3. Yes 4. No
42	How frequent do you use condom when you have sex after chewing Khat?	1. I never chewed Khat 2. I never had sex 3. Every time 4. Some times 5. Never used 88. Other (Specify) _____

**IV. KNOWLEDGE AND ATTITUDE TOWARDS KHAT CHEWING**

43	Have you heard about khat?	1. Yes 2. No
44	What have you heard about Khat?	1. I have never heard about it 2. Khat is good for studying 3. Khat is bad for health 4. Khat makes feel good 88. Other (specify) _____

45	How do you know about khat?	<ul style="list-style-type: none"> <li>1. I have never heard about it</li> <li>2. From school</li> <li>3. Through mass media (TV, Radio, News papers.)</li> <li>4. My families told me</li> <li>5. My friends told me</li> <li>88. Other (Specify) _____</li> </ul>
46	What is your plan in the future about Khat chewing?	<ul style="list-style-type: none"> <li>1. I will chew khat</li> <li>2. I will not chew khat</li> <li>88. Other (Specify) _____</li> <li>99. I don't know</li> </ul>
47	What do you think should be done in order to prevent and control Khat chewing habit among students?	<ul style="list-style-type: none"> <li>1. Punishing those students who chew Khat</li> <li>2. Educating students through different mass Medias</li> <li>3. Including substance abuse as part of the educational curriculum</li> <li>4. Closing of khat selling places</li> <li>88. Other (Specify)_____</li> </ul>

**THANK YOU VERY MUCH FOR TAKING TIME TO FILL THIS QUESTIONNAIRE!**

10.2.2. In Amharic

አዲስ አበባ ዉስጥ በሚገኙ የፕሪፓራቶሪ ተማሪዎች ላይ በጫትና ተያያዥ ጉዳዮች ዙሪያ ጥናት ለማድረግ የተዘጋጀ መጠይቅ

ክፍል አንድ : ስለተማሪውና / ዋና ቤተሰቦቹ/ ቿ አጠቃላይ ሁኔታዎች የሚመለከቱ ጥያቄዎች		
ተ. ቁ	ጥያቄዎች	ምላሾች
1	እድሜህ/ሽ ስንት ነው ?	<input type="text"/>
2	ጾታህ/ሽ ምንድን ነው?	1. ወንድ 2. ሴት
3	ብሄርህ ምንድን ነው ?	1. አማራ 2. አሮሞ 3. ጉራጌ 4. ትግሬ 88. ሌላ ካለ ይጠቀስ _____
4	ሀይማኖትህ ምንድን ነው?	1. ኦርቶዶክስ ክርስቲያን 2. ሙስሊም 3. ኘሮቴስታንት 4. ካቶሊክ 88. ሌላ ካለ ይጠቀስ _____
5	ምን አይነት ትምህርት ቤት ውስጥ ነው የምትማረው/ሪው ?	1. የመንግስት ትምህርት ቤት 2. መንግስታዊ ያልሆነ ትምህርት ቤት
6	ስንተኛ ክፍል ነህ/ሽ?	1. አስራ አንደኛ 2. አስራ ሁለተኛ
7	የየትኛው የትምህርት ዘርፍ ተማሪ ነህ/ሽ?	1. ተፈጥሮ ሳይንስ 2. ማህበራዊ ሳይንስ
8	ባለፈው የትምህርት አመት አማካኝ ውጤትህ/ሽ ከታች በተጠቀሱት የትምህርት አይነቶች ላይ ከመቶ ስንት ነበር? 1. ሒሳብ 2. እንግሊዝኛ	<input type="text"/> <input type="text"/>

9	ባለፈው የትምህርት መንፈቅ አመት አጠቃላይ አማካይ ውጤትህ/ሽ ከመቶ ስንት ነበር?	<input type="text"/>
10	ከማን ጋር ነው የምትኖረው/ሪው?	1. ከአባቴ እና እናቴ ጋር 2. ከእናቴ ጋር ብቻ 3. ከአባቴ ጋር ብቻ 4. ብቻየን ነው የምኖረው 88. ሌላ ካለ ይጠቀስ _____
11	የአባትህ/ሽ የትምህርት ደረጃ ስንት ነው? (ያልተማሩ ከሆኑ 00 ለየብቻ ሳጥን ውስጥ ይቀመጥ)	1. ያልተማረ 2. 1 - 8ኛ ክፍል 3. 9 - 12 ኛ ክፍል 4. ከ12ኛ ክፍል በላይ
12	የእናትህ/ሽ የትምህርት ደረጃ ስንት ነው? (ያልተማሩ ከሆኑ 00 ለየብቻ ሳጥን ውስጥ ይቀመጥ)	1. ያልተማረች 2. 1 - 8ኛ ክፍል 3. 9 - 12 ኛ ክፍል 4. ከ12ኛ ክፍል በላይ
13	የቤተሰብህ /ሽ አማካይ ወርሃዊ ገቢ ምን ያህል ነው ?	<input type="text"/>
<b>ክፍል ሁለት: ስለ ጫት አጠቃቀም የሚመለከቱ ጥያቄዎች</b>		
14	እስከ ዛሬ በህይወትህ ጫት ቅመህ/ሽ ታውቃለህ/ታውቁያለሽ?	1. አዎ አውቃለሁ 2. አላውቅም
15	ባለፉት 12 ወራት ውስጥ ጫት ቅመህ/ሽ ታውቃለህ/ታውቁያለሽ?	1. ጫት ቅመኔ አላውቅም 2. አዎ አውቃለሁ 3. አላውቅም
16	ባለፉት 30 ቀናት ውስጥ ጫት ቅመህ/ሽ ታውቃለህ/ታውቁያለሽ?	1. ጫት ቅመኔ አላውቅም 2. አዎ አውቃለሁ 3. አላውቅም
17	ባለፉት 30 ቀናት ውስጥ ምን ያህል ቀናት ጫት ቅመህ/ሽ/ቅመሻል?	1. ጫት ቅመኔ አላውቅም 2. ባለፈው ወር ጫት አልቃምኩም 3. 1 – 7 ቀናት 4. 8- 14 ቀናት 5. 15 - 21 ቀናት 6. 22 እና ከዛ በላይ ቀናት

18	መጀመሪያ ጫት የቃምክ / የቃምሽ ጊዜ እድሜ ህ/ሽ ስንት ነበር?( ከዚህ በፊት ቅመህ ካወክ/ካወክሽ መልስህን /ሽን ሳጥን ውስጥ አስቀምጥ/ጪ )	1. ጫት ቅመኔ አላውቅም 2. <input type="text"/>
19	ለጫት መቃሚያ የሚሆን ገንዘብ ከየት ታገኛለህ/ሽ?	1. ጫት ቅመኔ አላው ቅም 2. ከቤተሰብ 3. ክራሴ 4. ከጓደኞቻቸው 88. ሌላ ካለ ይጠቀስ _____
20	ለጫት መቃሚያ የሚሆን ገንዘብ ብታጣ/ጪ ምን ታደርጋለህ/ታደርጊያለሽ?	1. ጫት ቅመኔ አላውቅም 2. ጓደኞቼን ወይም ቤተሰቦቼን እንዲገዙልኝ እጠይቃለሁ 3. ከሌላ ሰው እበደራለሁ 4. ከጫት ቤት በዱቤ እወስዳለሁ 5. ሌሎች ሰዎች የገዙትን ጫት ቢጋራ እጠቀማለሁ 88. ሌላ ካለ ይጠቀስ _____
21	ጫት ሳትቅም/ሚ ለምን ያክል ቀናት መቆየት ትችላለህ/ሽ?	1. ጫት ቅመኔ አላውቅም 2. ከሰዓት ቀናት በታች 3. ከ8 - 14 ቀናት 4. ከ15 - 21 ቀናት 5. ከ21 ቀናት በላይ
22	ብዙውን ጊዜ ጫት ከየት ታገኛለህ/ሽ?	1. ጫት ቅመኔ አላውቅም 2. ጫት ቤት 3. ከሰቅ/ ካፌ/ ምግብ ቤት 4. ከጓደኞቼ 88. ሌላ ካለ ይጠቀስ _____
23	ጫት መቃም ስትፈልግ/ጊ ብዙውን ጊዜ የት ነው የምትቅመው / የምትቅሚው?	1. ጫት ቅመኔ አላውቅም 2. ቤት ውስጥ 3. ጫት ቤቶች ውስጥ 4. ጓደኞቼ ቤት ውስጥ 88. ሌላ ካለ ይጠቀስ _____
24	ብዙውን ጊዜ ጫት መቼ ነው የምትቅመው/ የምትቅሚው?	1. ጫት ቅመኔ አላውቅም 2. ከሰዓት በኋላ 3. በምሽት 4. በእረፍት ቀናት 5. በበዓላት ቀናት 6. በማንኛውም ጊዜ 88. ሌላ ካለ ይጠቀስ _____



25	ብዙውን ጊዜ ከማን ጋር ሆነህ/ሽ ነው የምትቅመው/ የምትቅሚው?	<ol style="list-style-type: none"> <li>1. ጫት ቅሜ አላውቅም</li> <li>2. ከአቻ ጓደኞቼ ጋር</li> <li>3. ከቤተሰቦቼ ጋር</li> <li>4. ከሴት/ ወንድ ጓደኛዬ ጋር</li> <li>5. ከማንኛውም ሰው ጋር</li> </ol> <p>88. ሌላ ካለ ይጠቀስ _____</p>		
26	በህይወትህ/ሽ በጥዋቱ ጫት ቅመህ/ሽ ታውቃለህ/ታውቂያለሽ ? (የጀቦና)	<ol style="list-style-type: none"> <li>1. ጫት ቅሜ አላውቅም</li> <li>2. አዎ አውቃለሁ</li> <li>3. አላውቅም</li> </ol>		
27	በአማካይ ጫት በመቃም ምን ያክል ጊዜ ትቆያለህ/ሽ?	<ol style="list-style-type: none"> <li>1. ጫት ቅሜ አላውቅም</li> <li>2. <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table></li> </ol>		
28	ጫት ለምንድነው የምትቅመው/ሚው ? (ከአንድ በላይ መልስ መስጠት ይቻላል)	<ol style="list-style-type: none"> <li>1. ጫት ቅሜ አላውቅም</li> <li>2. በትምህርት ምክንያት የሚደርስብኝን ጫና ለመቋቋም</li> <li>3. ከጓደኞቼ ጋር ለመደሰት</li> <li>4. በጓደኞቼ ግፊት</li> <li>5. በቤተሰብ ውስጥ የሚቅም ሰው ስላለ</li> <li>6. ከህይማኖት ጋር ስለሚያያዝ</li> </ol> <p>88. ሌላ ካለ ይጠቀስ _____</p>		
29	ብዙውን ጊዜ ጫት ስትቅም/ሚ ምን አብረህ/ሽ ትጠቀማለህ/ሚያለሽ?	<ol style="list-style-type: none"> <li>1. ጫት ቅሜ አላውቅም</li> <li>2. አልኮል መጠጥ እጠጣለሁ</li> <li>3. ቡና እጠጣለሁ</li> <li>4. ሲጋራ አጨሳለሁ</li> <li>5. ለስላሳ እጠጣለሁ</li> <li>6. ስኳር እጠቀማለሁ</li> </ol> <p>88. ሌላ ካለ ይጠቀስ _____</p>		
30	ብዙውን ጊዜ ጫት ከቃምክ/ሽ በኋላ ምን ታደርጋለህ/ታደርጊያለሽ?	<ol style="list-style-type: none"> <li>1. ጫት ቅሜ አላውቅም</li> <li>2. አልኮል መጠጥ ለመጠጣት ወደ ውጭ እወጣለሁ</li> <li>3. አጠናለሁ/ አነባለሁ</li> <li>4. ግብረ-ሰጋ ግንኙነት እፈጽማለሁ</li> <li>5. እተኛለሁ</li> </ol> <p>88. ሌላ ካለ ይጠቀስ _____</p>		
31	ጫት መቃም ማቆም አለብኝ ብለህ/ሽ አስበህ/ሽ/ ታውቃለህ/ታውቂያለሽ/?	<ol style="list-style-type: none"> <li>1. ጫት ቅሜ አላውቅም</li> <li>2. አዎ አውቃለሁ</li> <li>3. አላውቅም</li> </ol>		

32	<p>ጫት መቃም ማቆም አለብኝ ብለህ/ሽ እንድታሰብ/ቢ ያደረገህ/ሽ ምክንያት ምንድን ነው?</p>	<ol style="list-style-type: none"> <li>1. ጫት ቅጫ አላውቅም</li> <li>2. ጫት የማቆም ፍላጎት የለኝም</li> <li>3. ቤተሰቦቼ ጫት መቃሜን አልወደዱትም</li> <li>4. ጓደኞቼ ጫት መቃሜን አልወደዱትም</li> <li>5. ለጫት ብዙ ገንዘብ እያወጣሁ ስለሆነ</li> <li>6. ጫት መቃም ለጤና ጎጂ እንደሆነ ስለማውቅ</li> <li>88. ሌላ ካለ ይጠቀሱ_____</li> </ol>		
<p><b>ክፍል ሶስት: ከጫት ጋር ተያያዥነት ስላላቸው ነገሮች</b></p>				
33	<p>ምን ያክል ጊዜ የአልኮል መጠጥ ትጠጣለህ/ሽ?</p>	<ol style="list-style-type: none"> <li>1. የአልኮል መጠጥ ጠጥቼ አላውቅም</li> <li>2. አንዳንድ ጊዜ</li> <li>3. ብዙ ጊዜ / ቢያንስ በሳምንት አንዴ/</li> </ol>		
34	<p>ምን ያክል ጊዜ ሲጋራ ታጨሳለህ/ሻለሽ?</p>	<ol style="list-style-type: none"> <li>1. ሲጋራ አጨረሻ አላውቅም</li> <li>2. አንዳንድ ጊዜ</li> <li>3. ብዙ ጊዜ / ቢያንስ በሳምንት አንዴ/</li> </ol>		
35	<p>ምን ያክል ጊዜ ማሪዋና/ሆሽሽ ተጠቅመህ/ሽ ታውቃለህ/ ታውቂያለሽ?</p>	<ol style="list-style-type: none"> <li>1. ተጠቅሜ አላውቅም</li> <li>2. አንዳንድ ጊዜ</li> <li>3. ብዙ ጊዜ / ቢያንስ በሳምንት አንዴ/</li> </ol>		
36	<p>ምን ያክል ጊዜ ሽሻ ተጠቅመህ/ሽ ታውቃለህ/ታውቂያለሽ?</p>	<ol style="list-style-type: none"> <li>1. ሽሻ አጭሽ አላውቅም</li> <li>2. አንዳንድ ጊዜ</li> <li>3. ብዙ ጊዜ / ቢያንስ በሳምንት አንዴ/</li> </ol>		
37	<p>ቤተሰብ አባል ውስጥ ጫት የሚቅም ሰው አለ?</p>	<ol style="list-style-type: none"> <li>1. አዎ አለ</li> <li>2. የለም</li> </ol>		
38	<p>ከጓደኞቼ/ህ /ሽ መካከል ጫት የሚቅም ሰው አለ?</p>	<ol style="list-style-type: none"> <li>1. አዎ አለ</li> <li>2. የለም</li> </ol>		
39	<p>የግብረ ስጋ ግንኙነት አድርገህ/ሽ ታውቃለህ/ሽ?</p>	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላውቅም</li> </ol>		
40	<p>በህይወትህ/ሽ ከምን ያክል ሰው ጋር የግብረ ስጋ ግንኙነት አድርገህ/ሽ/ ታውቃለህ/ታውቂያለሽ? (አድርገህ/ሽ ካወክ/ሽ ቁጥሩን ሳጥኑ ውስጥ አስቀምጥ/ጩ)</p>	<ol style="list-style-type: none"> <li>1. የግብረ ስጋ ግንኙነት አድርጌ አላውቅም</li> <li>2. <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> </li> </ol>		
41	<p>ብዙውን ጊዜ ጫት ከቃምክ/ሽ/ በኋላ የግብረ ስጋ ግንኙነት ትፈጸማለህ/ትፈጽሟልሽ/?</p>	<ol style="list-style-type: none"> <li>1. ጫት ቅጫ አላውቅም</li> <li>2. የግብረ ስጋ ግንኙነት ፈጽሜ አላውቅም</li> <li>3. አዎ እፈጽማለሁ</li> <li>4. አልፈጽምም</li> </ol>		

42	<p>ጫት ቅመህ የግብረ ስጋ ግንገኙነት የምትፈጽም/ሚከሰት ኮንዶም ምን ያክል ጊዜ ትጠቀማለህ/ትጠቀሚያለሽ?</p>	<ol style="list-style-type: none"> <li>1. ጫት ቅመህ አላውቅም</li> <li>2. ግብረ ስጋ ግንገኙነት ፈጽሜ አላውቅም</li> <li>3. ሁልጊዜ እጠቀማለሁ</li> <li>4. አንዳንድ ጊዜ እጠቀማለሁ</li> <li>5. ተጠቅሜ አላውቅም</li> </ol> <p>88. ሌላ ካለ ይጠቀስ_____</p>
<p><b>ክፍል አራት: ስለ ጫት ያለህን /ሽን/ ግንዛቤና አመለካከት የሚመለከት</b></p>		
43	<p>ስለ ጫት ምንነት ሰምተህ ታውቃለህ/ታውቁያለሽ?</p>	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላውቅም</li> </ol>
44	<p>ምንድን ነው የሰማኅው/ሽው?</p>	<ol style="list-style-type: none"> <li>1. ሰምቻ አላውቅም</li> <li>2. ጫት ለጥናት ጥሩ እንደሆነ</li> <li>3. ጫት ለጤና ጎጂ እንደሆነ</li> <li>4. ጫት ጥሩ ሰሜት እንዲሰማን ያደርጋል</li> </ol> <p>88. ሌላ ካለ ይጠቀስ _____</p>
45	<p>ስለ ጫት ምንነት ከየት ልታውቅ ቻልክ/ሽ?</p>	<ol style="list-style-type: none"> <li>1. ሰምቻ አላውቅም</li> <li>2. ከትምህርት ቤት</li> <li>3. ከተለያዩ የመገናኛ ብዙሃን ዘዴዎች(ቴሌቪዥን፣ሬዲዮ፣ጋዜጣዎች...)</li> <li>4. ከቤተሰቦቻችን</li> <li>5. ከጓደኞቻችን</li> </ol> <p>88. ሌላ ካለ ይጠቀስ _____</p>
46	<p>የወደፊት እቅድህ በጫት መቃም ዙሪያ ምንድን ነው?</p>	<ol style="list-style-type: none"> <li>1. አቅማለሁ</li> <li>2. አልቅምም</li> </ol> <p>88. ሌላ ካለ ይጠቀስ _____</p> <p>99. አላውቅም</p>
47	<p>በአንተ/ቺ አመለካከት ተማሪዎች ላይ ምን ቢደረግ ጫትን መከላከል ወይም መቆጣጠር ይቻላል ብለህ/ሽ ታስባለህ/ታስቢያለሽ?</p>	<ol style="list-style-type: none"> <li>1. ጫት የሚቅሙ ተማሪዎችን መቅጣት</li> <li>2. በተለያዩ የመገናኛ ብዙሃን ስለጫት ትምህርት መስጠት</li> <li>3. ስለ አደንዛዥ እጾች የትምህርት ካሪኩለሙ ውስጥ እንዲካተቱ ማድረግ</li> <li>4. ጫት የሚሸጥቸውን ቦታዎች መዘጋት</li> </ol> <p>88. ሌላ ካለ ይጠቀስ_____</p>

ይህን መጠይቅ ጊዜ ወስደህ/ሽ መልስ ስለሰጠሽኝ/ሽኝ በጣም አመሰግናለሁ።

## 11. Declaration

I, the undersigned declare that this thesis is my original work in partial fulfillment of the requirement for the degree of Master of Public Health. I also declare that it has never been presented in this or any other university and that all resources and materials used in the thesis have been duly acknowledged.

Student Name: Yohannes Dereje Getahun

Signature: \_\_\_\_\_

Place of submission: Addis Ababa

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

This thesis has been submitted for examination with my approval as a university advisor.

Advisor Name: Nigussie Deyessa

Signature: \_\_\_\_\_

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