



**ST. PAUL'S HOSPITAL MILLENNIUM MEDICAL COLLEGE
KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS
SUBSTANCE USE AMONG MEDICAL STUDENTS OF
ST.PAUL HOSPITAL MILLENNIUM MEDICAL COLLEGE,
ADDIS ABABA, ETHIOPIA**

BY: DR.BEKALU ASSEFA

**A STUDENT RESEARCH PAPER TO BE SUBMITTED TO THE
DEPARTMENT OF PUBLIC HEALTH, ST.PAUL HOSPITAL
MILLENNIUM MEDICAL COLLEGE, IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF
MEDICINE**

JULY, 2018

ADDIS ABABA, ETHIOPIA



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Acknowledgement

First and foremost, I would like to thank the almighty God for being on the side of me in the efforts towards my successful completion of this research paper. I would like to express my deepest gratitude to my advisors: Mr. Belayneh Lulseged for his immeasurable support and constructive guidance throughout the development of the paper. I am also very thankful to SPHMMC for giving me the chance to conduct this research. Finally special thanks to Wondesen who helped me collect the data.

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ABBREVIATION AND ACRONYM

AIDS-ACQUIRED IMMUNE DEFICIENCY SYNDROME

DHS-DEMOGRAPHIC AND HEALTH SURVEY

HIV - HUMAN IMMUNE DEFICIENCY VIRUS

KAP- KNOWLEDGE, ATTITUDE AND PRACTICE

SPHMMC- SAINT PAUL'S HOSPITAL MILLENNIUM MEDICAL COLLEGE

STI- SEXUALLY TRANSMITTED ILLNESS

SPSS- STATISTICAL PACKAGE FOR SOCIAL SCIENCES

WHO- WORLD HEALTH ORGANIZATION

Abstract

Introduction: Adolescence and young adulthood are the periods most associated with the onset of substance/drug use world-wide. The youth being the future generation for any community clearly indicates that there is a need for initiatives to be targeted towards young people for the prevention of substance use and abuse.

Objective: The main objective of this study was to assess Attitude, Practice and SPHMMC students' knowledge on substance use and the reasons to use substance.

The data utilized in this research is primary data which is to be obtained from students who are willing to be part of this research.

Methods: Descriptive Cross-sectional study design was used by taking a total sample size of 259. A stratified convenience sampling technique was used. Different statistical analyses was used including frequencies of variables with their percentage.

Results: The prevalence of substance use for at least one substance was 42.9%. All students had good knowledge. About 173(66.8%) of the respondents had good attitude whereas 86(33.2%) of them had poor attitude. About 111(42.9%) of the respondents had bad practice of substance use. Stress was perceived as the main cause of using substance by about 233(86.5%) respondents.

Conclusion: Substance use is a serious problem among students of St. Paul hospital millennium medical college. Despite their good knowledge students use substance and most students' excuse to use it was stress.

Keywords: Medical students, knowledge, attitude and Practice, Substance use, SPHMMC

1. Introduction

1.1 Background of study

Human beings have always had a desire to eat or drink substances that make them feel relaxed, stimulated or euphoric. It is as old as mankind. Humans have used drugs of one sort or another for thousands of years. Wine was used at least from the time of the early Egyptians, narcotics from 4000 B.C. and medicinal use of marijuana has been dated to 2737 BC in China [1].

Substance abuse and dependence are one of the most frequently occurring disorders in adolescents, young adults, and the general population. A substantial proportion of the adolescent populations uses drugs or alcohol to the extent that their health, interpersonal relationships, or school performance are adversely [2].

The use of substances such as alcohol, khat, and tobacco has become one of the rising major public health and socioeconomic problems worldwide. The WHO estimates that 1.1 billion people, representing a third of the world population above the age of 15 years, use tobacco, principally in the form of the cigarettes. Of these smokers, 700 million of them being males live in developing countries [3].

The rapid economic, social, and cultural transitions that most countries in sub-Saharan Africa are now experiencing have created a favorable condition for increased and socially disruptive use of drugs and alcohol. Substance misuse is a growing problem in Ethiopia, as in many developing countries. Alcohol and khat are the most frequent substances of abuse [4].

According to the Ethiopian DHS 2011, the prevalence of alcohol use among men and women is 53% and 45%, respectively, and 11% of women and 28% of men ever chewed khat [4]

In Ethiopia, the chewing of khat has been practiced for years and is, to a large extent, socially accepted; it is used by students to improve their academic performance, by truck drivers to keep themselves awake and by laborers to supply the extra vigor and energy they need for their work. Currently, substance abuse is one of the most burning public health problems in Ethiopia with the highest extent mainly seen among the students of higher educational institutions. Khat and alcohol are among those substances widely consumed among the youth of Ethiopia. [5]

1.2. Statement of the problem

Substance use is becoming a serious ongoing public health problem. It has devastating consequences for a person, a family and a community. Various health effects, ranging from minor issues like digestive problem or respiratory infections, to potentially fatal diseases, like HIV/AIDS and hepatitis C., School failure or poor academic performance , economic loss and poverty, loss of productivity, violence and aggression. [5]

Although nearly all of the world's future leaders, policy-makers, and healthcare providers have passed through the college system as young people, culture of substance abuse is taking its toll in adolescent population, with the highest magnitude mainly occurred among university students. [5]

A significant proportion of university students abuse Alcohol, Chat/ Khat, Tobacco and cannabis. This culture of alcohol and other drug abuse threatens not only the present wellbeing of university students, but also the future capacity of our nation to maintain its leadership in the fiercely competitive global economy, if this problem is left unstudied. [2]

The problem of alcohol and drug abuse among college or university students remains an important area of research due to the implications of early substance dependence on the future of the youth. Previous studies from various settings indicate relatively high rates of alcohol and other substance use among high school students and those in higher educational institutions. Among the few studies from universities and colleges in Ethiopia, findings show high rates of substance use among students. [6]

Alcohol and drug abuse is a common public health risk that peaks in persons between 18 and 25 years of age and is highly prevalent among university and college students. While this has been repeatedly studied and documented in developed nations, there have been limited studies in developing countries like Ethiopia [9]. In Ethiopian higher education institutions, alcohol and drug abuse and addiction has become one of the most serious problems in recent years. Therefore, this study therefore sought to assess the causes, prevalence and consequences of alcohol and drug abuse among university students. [6]

Studies indicate that substance use among Ethiopian adolescents is considerably rising. Of the young segment of the Ethiopian population, college and university students are at the highest

risk of substance use. Joining university often leads to new opportunities, independence from family control, self-decision making, and peer-pressures to use or abuse alcohol or other drugs. [4]

Even if substance use has become a common problem among university students in Ethiopia, only scant information is available about the magnitude of substance use and factors contributing for its use in this segment of the population. Especially in SPHMMC the problem of practising substance was not explored well. Therefore the aim of this study is to explore the knowledge, attitude and practice of substance abuse by medical students in SPHMMC.

1.3 Significance of the study

The significance of identifying the knowledge, attitude and practice of substance use was; to help identify the major risk factors of substance use in St. Paul Hospital millennium medical college, to helps St. Paul hospital to increase the awareness of students on the impact of substance use and also initiate researchers who have an interest to make further study on the issue.

2. Literature review

The use of substances such as alcohol, Chat, and tobacco has become one of the rising major public health and socioeconomic problems worldwide [1]. The global burden of disease attributable to alcohol and illicit drug accounts 5.4% of the total burden of disease. Another 3.7% of the global burden of disease is attributable to tobacco use. And disorders due to psychoactive substance use including alcohol, drug, and tobacco dependence are the main underlying conditions ultimately responsible for the largest proportion of the global burden of disease attributable to substance use [4].

Students perceive substance use as normal part of college life. Substances mostly used by university students include alcohol, cigarettes and marijuana. Research indicates that students tend to consume more than one substance on a regular basis. Students with a high family income and who are not religious are considered to be at higher risk for substance use and developing SUDs [2]. .

Lack of knowledge on the risks of substance use has contributed to the increasing cases of substance use disorders. Substance use has been attributed to lack of proper knowledge on the associated risks [2].

The Atlas on Substance Use 2010 of the World Health Organization, indicated the global prevalence rates of substance use disorders ranging from 0% to 3%, with the Eastern Mediterranean region having the highest prevalence rates [2].

According to The United Nations office on Drugs and Crime-World Drug Report 2012, Cannabis is the world's most widely used illicit substance, ranging from 2.6% to 5% of the adult population (119-224 million estimated users aged 15-64 years). Amphetamine-type stimulants (ATS) (excluding "ecstasy") second with an estimated prevalence of 0.3-1.2% (14.3-52.5 million users), and opioid (mainly heroin, morphine, and non-medical use of prescription opioids) placed third at 0.6-0.8% of the population aged 15-64 years (26.4-36 million opioid users) [2].

Based on Research done on Substance use disorders among university students in America, prevalence of illicit drug use ranging from 11% to 17%, and the prevalence of current use ranged from 6% to 8%. A study by Arria et al. reported prevalence of drug use among college students persisting even after graduating from college [7].

Based on Research done on Substance use disorders among university students in Europe, a study of seven universities in the United Kingdom reported 5% students sampled regularly using illicit drugs, and 25% being occasional users. Another similar study in Wales reported common substances abused by university students were alcohol, cigarettes, cannabis, ecstasy, nitrous oxide and cocaine (2017). A study in France, students indicated perceived stress to be linked to alcohol misuse [8].

According to research on Substance use disorders among university students in Asia, in India reported cannabis use in 7% of the students. Islamic countries continue to experience an increase in substance use regardless of drugs and alcohol being illegal and against Islamic religion. Most affected are young people and women. In the Middle East, Kuwait has reported 14% lifetime prevalence of illicit drug use with Iran reporting 8% prevalence. Studies in Asia noted a trend of combining illicit drug use with other substances. [2]

When we come to Substance use disorders among university students in Africa, The rapid economic, social, and cultural transitions that most countries in sub-Saharan Africa are now experiencing have created a favorable condition for increased and socially disruptive use of drugs and alcohol. [2]

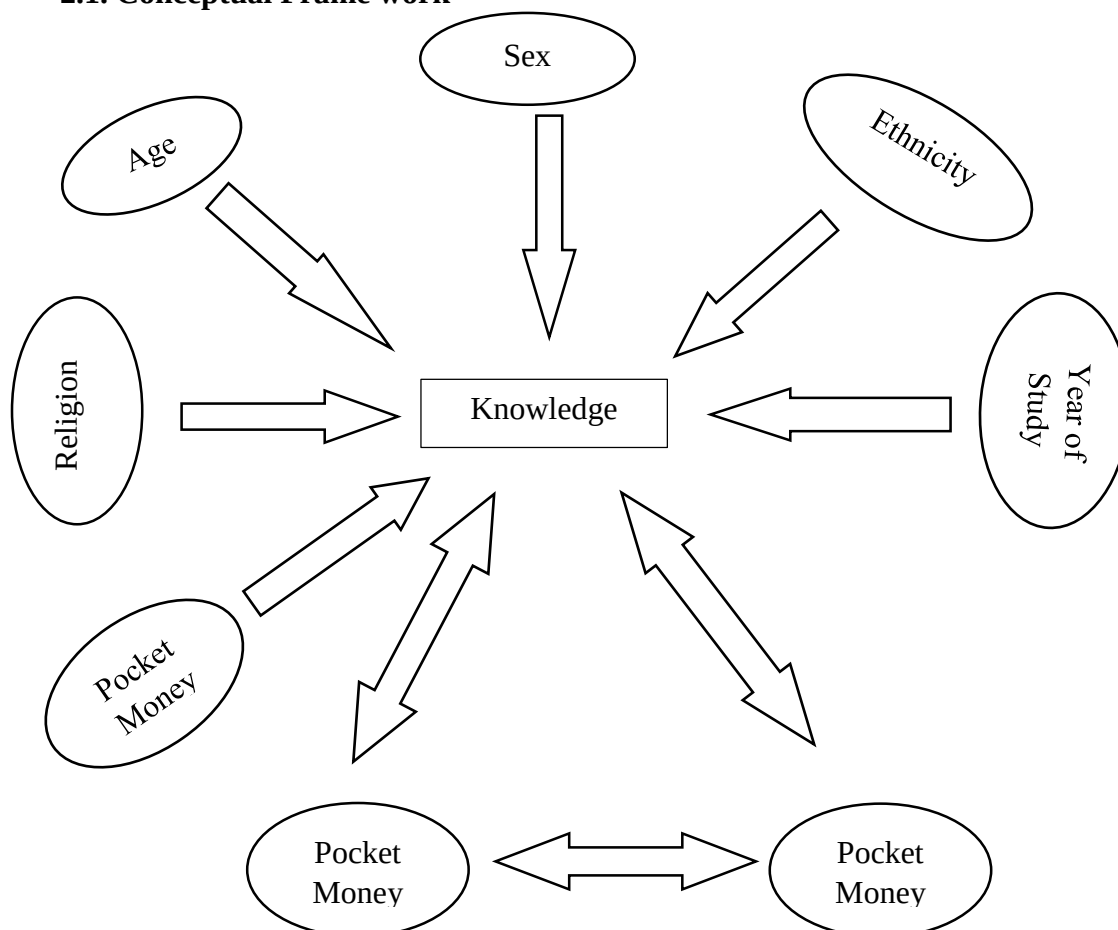
A study in Nigeria by Awosusi et al. with a sample size of 2297 respondents, reported that low substance use is associated with knowledge of health effects (physical, social and psychological health). The study reported majority of the respondents to use alcohol and with a higher percentage compared to that of cigarette smokers 26.9% and marijuana users 14.8%. These findings are in tandem with a similar study that supported the assertion that substance use is common among undergraduate students in Nigeria; Alcohol and tobacco being the most common substances [2].

A study among college students in Eldoret, Western Kenya indicated 69.8% as the lifetime prevalence rate of a substance. Lifetime prevalence rate of alcohol use was 51.9%; cannabis 2%, cocaine 0.6% and cigarettes 42.8% with males having higher rates $p < 0.05$. 75% were introduced by a friend; 23.5% by a relative; 62.2% used substances for relaxation and 60.8% to relieve stress [2].

Studies indicate that substance use among Ethiopian adolescents is considerably rising; in particular college and university students are the most at risk of substance use. Based on a recent survey performed in a medical school in Addis Ababa, Deressa & Azazh (2011) reported that among 622 undergraduates, 22%, 7% and 9% consumed alcohol, khat and cigarettes, respectively. In all cases, the majority were males. Also, being an Orthodox Christian or a Muslim was strongly associated with alcohol or khat consumption, respectively. The use of khat, cigarettes and alcohol appeared to increase with the class year or age of the students [9].

According to research done on Substance Use and Associated Factors among 1040 Haramaya University students, about two-thirds (62.4%) of the participants used at least one substance. The most commonly used substance was alcohol (50.2%). Being male had strong association with substance use (AOR (95% CI), 3.11 (2.20, 4.40)). The odds of substance behaviour is higher among third year students (AOR (95% CI), 1.48 (1.01, 2.16)). Being a follower of Muslim (AOR (95% CI), 0.62 (0.44, 0.87)) and Protestant (AOR (95% CI), 0.25 (0.17, 0.36)) religions was shown to be protective of substance use. Married (AOR (95% CI), 1.92 (1.12, 3.30)) and depressed (AOR (95% CI), 3.30 (2.31, 4.72)) students were more likely to use substances than others [4].

2.1. Conceptual Frame work



3. Objective of the study

3.1 General objective

The main objective of this study was to assess:

- Knowledge, attitude and practice on substance use among medical students in SPHMMC.

3.2 Specific objectives

The specific objectives of this study were:

- To determine the prevalence of substance use among SPHMMC students;
- To assess the level of knowledge on substance use;
- To assess attitude towards substance use among SPHMMC students;
- To determine the level of practice

4. Methods

4.1. Study area

The study was conducted at SPHMMC which was built in 1969 by Emperor Haile Siassie in collaboration with the German Evangelical Church. It currently has 700 beds, with annual averages of 200,000 patients and a catchment population of more than 5 million. There are over 2800 clinical and non-medical staff in over 13 departments including most recently launched its new hemodialysis unit. Currently the college has about 798 students from which 501 were males while 297 were females.

The medical school opened in 2007, the new millennium era of the Ethiopian calendar, which is 7 years behind the Gregorian calendar. It's intended to alleviate the severe shortage of medical doctors in the country.

4.2. Study design

A descriptive cross sectional study design was conducted in this particular research.

4.3. Source population

All undergraduate medical students at SPHMMC are the source population for the study.

4.4. Study population

All undergraduate medical students at SPHMMC who fulfill the inclusion criteria.

Inclusion criteria

The study was conducted among the all undergraduate medical students of SPHMMC who are willing to participate in the study.

Exclusion criteria

- Students who are not volunteer to participate in the study.
- Students who are absent at the tie of data coaction.

4.5. Sampling

4.5.1. Sample size determination

Using the following two formulas, p value was taken as 50%, Confidence level as 95% and margin of error as 5%. Where

- n_0 = The minimum sample size required, for a very large population ($N > 10,000$)
- n =sample size
- N =The size of the population that the sample is to represent
- d = margin of error
- P =proportion
- α =degree of accuracy

$$n_o = \frac{Z_{\alpha/2}^2 p(1-p)}{d^2}$$

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

$$n = \frac{n_o}{1 + \frac{n_o}{N}}$$

$$= \frac{384}{1 + \frac{384}{798}} = 259$$

4.5.2 Sampling technique

First students were stratified based on year of study and Students from each year of study were selected proportionally to their population size. Then a convenience sampling technique was applied to select individuals from each strata.

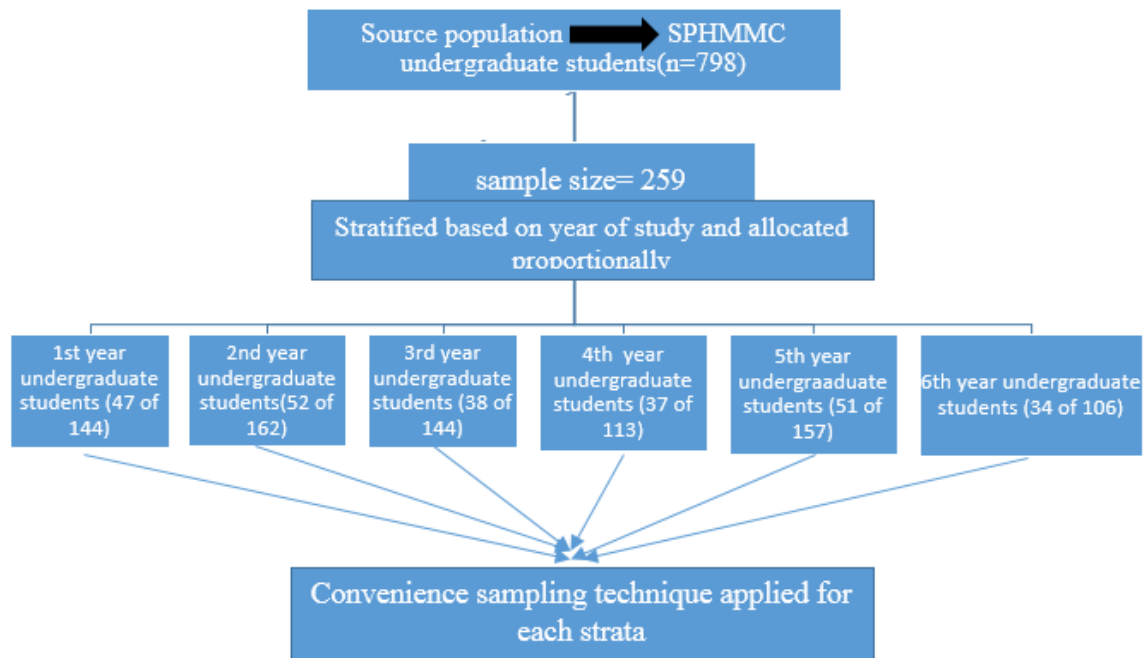


Figure 1: Diagram showing Sampling technique among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, 2018

4.6. Data collection

The questionnaire was developed after extensive review of literatures and similar study tools used previously by adapting to the purpose of the study. Knowledge and attitude related questionnaires were adopted from study done in 2001 on knowledge, attitude and practice on substance use among high school students whereas practice related questionnaires were adopted mainly from fifth edition of diagnostic and statistical manual of mental disorder. The data was collected using questionnaire which was prepared in English assuming all St. Paul students can read and understand English. The questionnaire has four parts. The first part is about demographic characteristic of the respondents, the second part consists 10 questions to get information about the level of knowledge that the students have about substance use. The third part contains 4 questions seeking answers about their attitude towards substance use. The last part of the questionnaire consists 16 questions that dealt students' practice related to substance use. The participant students filled the questionnaire which was prepared in English.

4.7. Study variables

Dependent variables

- Knowledge on substance use
- Attitude towards substance use
- Level of practice of substance

Independent variables

- Age,
- Sex,
- Monthly pocket money
- Year of study,
- Religion– such as Muslim, Christian/Protestant, Catholic, or other.
- Ethnicity - such as Oromo, Amhara, Tigre and other.

4.8. Operational Definition

Knowledge: - means information and skills gained through education or experience. In this study it refers to the range of information and understanding gained by the students regarding substance, and it is classified as good and poor. The level of knowledge was assessed based on 10 questions. Respondents are scored based on study done in 2001 on knowledge, attitude and practice on substance use among high school students.

- 70% of the questions and more scored as having good knowledge and
- Less than 70% scored as having poor knowledge.

Attitude: - means a way of thinking feeling about something, in the present study attitude refers to students' feeling regarding substance use and it is classified as poor and good attitude. The level of attitude was assessed based on 4 questions. Those who disagree on any substance use have favorable attitude and those who agree on using at least one of the substances have unfavorable attitude. Respondents are scored based on study done in 2001 on knowledge, attitude and practice on substance use among high school students.

Practice: - the action intended to involve in use of any kind of substance. The level of practice of students was assessed based on 16 questions that were prepared to assess their practice. About 9 of them are derived from fifth edition of diagnostic and statistical manual of mental disorder from which those who answered 2 and more was scored as having poor practice.

Substance Use: In this study it was referred to as use of at least one of the substances (alcohol, chat and cigarettes) in an individual's life time to alter mood or behaviour

Khat: refers to the leaves and the young shoots of the plant *Catha edulis* Forsk, a species belonging to the plant family Celastraceae.

Alcohol: this refers to any alcoholic beverage be it commercial beer, the local katikala, the wines.

Tobacco: this refers to smoking tobacco only.

4.9. Data processing and analysis

The data were first checked for completeness and internal consistency. Data then be entered into SPSS version 21 software package. Data were cleaned by doing simple frequency and cross-tabulation between each independent and dependent variable. To observe the overall trends in the data Descriptive statistics such as frequency, graphics and cross tabulations was calculated for dependent and independent variables.

4.10. Ethical consideration

Ethical clearance was obtained from SPHMMC. Information was collected after obtaining informed consent from each participant. The personal information of study participants was kept entirely anonymous, and confidentiality was assured throughout the study period.

4.11. Data quality control

Training was given for data collectors who are selected from each batch on how to use the questionnaire. The questionnaire was developed in English. The collected data was checked by me on daily basis for completeness and consistency.

4.12. Dissemination of findings

The finding will be first reported to SPHMMC public health department for evaluation purpose and a copy of it will be given to Administration of SPHMMC.

5. Results

5.1. Socio-demographic Characteristics

Out of the total 259 students that participated, questionnaires from 259 respondents were complete and considered for analysis making the response rate 100%. Of the total 259 respondents, 230 (88.8%) were age ranged from 20 to 24 years. From the total participants, 180 (69.5%) were males and the rest 79(30.5%) were females. (Table1)

The most dominant ethnic group was Oromo accounting for 115 (44.4%) followed by Amhara 94(36.3). Regarding religion about 122 (47.1%) were Orthodox Christians. From the respondents 52 (20.1%) were second year students, and 200 (77.2%) get a monthly pocket money of 500–999 Ethiopian birr (Table1).

Table 1: Socio-demographic characteristics of undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, 2018

Characteristics	Value	Frequency	Percentage (%)
Age	≤19 years	12	4.6
	20–24 years	230	88.8
	≥25 years	17	6.6
Sex	Male	180	69.5
	Female	79	30.5
Ethnicity	Amhara	94	36.3
	Oromo	115	44.4
	Tigray	15	5.8
	Somali	22	8.5
	Other	13	5
Religion	Orthodox	122	47.1
	Muslim	72	27.8
	Protestant	64	24.7
	Other	1	4
Year of study	First	47	18.1
	Second	52	20.1
	Third	38	14.7
	Fourth	37	14.3
	Fifth	51	19.7
	Sixth	34	13.1
Pocket money	101–299	3	1.2
	300–499	13	5
	500–999	200	77.2
	≥1000	43	16.6

5.2. Knowledge of the respondents about Substance use

One of the main objectives of this study was to assess the knowledge the students. All of the students 259(100%) knew or at least heard of all the substances (Alcohol, Khat and Cigarette). All of the respondents 259(100%) knew various ways of using these substances (Drinking, chewing chat, injection, smoking and sniffing).About 258(99.6%) of the respondents think substances are addictive whereas 1(0.4%) of them think they aren't addictive. About 259 (100%) of them think using substance has impact on human health. Generally almost all students knew the impacts of the substances incorporated in the questionnaire except that 6

(2.3%) students don't think that these substances predispose to STI. The overall level of knowledge of students is 100%(Table 2)

Table 2: Knowledge on substance among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia SPHMMC,2018

Questions	Responses	N	%
Drugs you know about	1.Alcohol	259	100
	2.Tobacco	259	100
	3.Khat (Chat)	259	100
Ways of using drugs / substance	1.Drinking	259	100
	2.chewing	259	100
	3. Injection	259	100
	4. Sniffing	259	100
	5.Smoking	259	100
Are drugs addictive?	1.Yes	258	99.6
	2.No	1	0.4
Does using substance affect educational performance?	1.Yes	259	100
	2.NO	0	0
Does using substance have impact on human health?	1.Yes	259	100
	2.NO	0	0
Which is associated with lung cancer?	1.Alcohol	0	0
	2.Tobacco	259	100
	3.Khat (Chat)	0	0
Which is associated with chronic liver disease?	1.Alcohol	259	100
	2.Tobacco	0	0
	3.Khat (Chat)	0	0
Does using substance predispose to STI?	1.Yes	253	97.7
	2.No	6	2.3

5.3. Source of information

Out of the 259 respondents 110(42.5%) students answered responded “Book”, about 57(22%) of them responded “Mass media”, 56 (21.6%) of them responded “Personal experience” and 36(13.6%) of them responded “Friends” to be their source of information. (Table 3)

Table 3: Source of information of undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, 2018

Source of information	Frequency	Percentage
Personal experience	56	21.6
Books	110	42.5
Mass media	57	22.0
Friends	36	13.9

5.4. Attitude of the respondents towards Substance use

Attitude has a powerful influence over behavior. This study assessed attitude of students towards the use of drugs. It was found that 240 (92.7%) of the respondents felt that substance use is a problem among St. Paul students. Most students disagreed on using the substances. Out of 259 respondents 80(30.9%) respondents agreed on chewing chat while the rest 179(69.1%) disagree on it. Cigarette smoking was disagreed up on by 232(88.6%) respondents, probably because it is not really accepted by most respondents and those who use it do it secretly. 62(23.9%) of respondents agreed on drinking alcohol when 197(76.1%) disagreed on drinking alcohol.(Table 4)

Table 4: Agreement/ Disagreement on Substance Use among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, 2018

Substance Type	Frequency	Percentage
To action of chew Chat		
Agree	80	30.9
Disagree	179	69.1
To action of smoking Cigarette		
Agree	27	10.4
Disagree	232	88.6
To action drinking Alcohol		
Agree	62	23.9%
Disagree	197	76.1%

There was disagreement on use of the substances by both sexes. The males disagreed on use of Chat, tobacco and Alcohol in the respective percentages 115(63.8%), 164(91.1%) and 136

(75.6 %).The females also disagreed on chewing Chat, smoking tobacco and drinking Alcohol with the respective percentages 64(81%), 68(86.1%) and 61 (77.2%). For all of the substances the females disagreed on substance use more than the males.(*Table 5*)

Table 5: Agreement/ Disagreement on Substance Use by Sex among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia 2018

Substance Type	Male	Female
To action of chew Chat		
Agree	65(36.1%)	15(19%)
Disagree	115(63.8%)	64(81%)
To action of smoking Cigarette		
Agree	16(8.9%)	11(13.9%)
Disagree	164(91.1%)	68(86.1%)
To action drinking Alcohol		
Agree	44(24.4%)	18(22.8%)
Disagree	136(75.6%)	61(77.2)

When the overall Attitude score distribution by sex was determined out of 180 males 65(36.1%) of them had poor attitude while the rest 115(63.9%) had good attitude and out of 79 females 21(26.6%) of them had poor attitude while the rest 58 (73.4%) had good attitude.

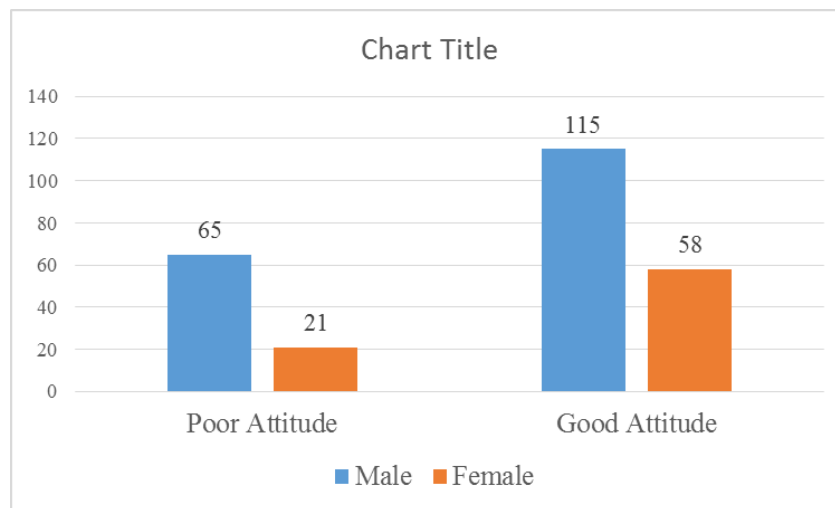


Figure 2: Overall Attitude of students by sex among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia

5.5. Practice of Substance Use

About 15 (5.8%) of the respondents reported that they often take larger amount or longer period than they actually intended. 110(42.5%) of them continued using substance knowing the possible negative effects of their action. 118(45.6%) of them crave using substances. Generally most of the questions below had some positive answer except two of the question. These are none of the respondents gave a “Yes” answer when asked whether they use substance recurrently enough to cause hazardous effect and whether they use substance to the level that they couldn’t fulfill obligation at work or home. (Table 6)

Table 6: Substance use in the past 12 months among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, 2018

Questions to assess substance use in the last 12 Months		Frequency	Percentage
Do you often take substance in larger amount or over a longer period than you intended?	Yes	15	5.8
	No	244	94.2
Do you continue using substance despite your knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance?	Yes	110	42.5
	No	149	57.5
Do you crave or have strong desire to use substance?	Yes	118	45.6
	No	141	54.4
Do you spend a great deal of time in activities necessary to obtain, use or recover from the substance’s effect?	Yes	34	13.1
	No	225	86.9
Have you had unsuccessful efforts to cut down or control substance use?	Yes	13	5
	No	246	95
Do you give up or reduce social, occupational, or recreational activities to use substance?	Yes	8	3.1
	No	251	96.9
Do you recurrently use substance in such way that it is physically hazardous?	Yes	0	0
	No	259	100
Have you continued using substance despite your persistent or recurrent social problems caused or exacerbated by its effect?	Yes	27	10.4
	No	232	89.6
Do you recurrently use substance in such way that it results in failure at work, school or home?	Yes	0	0
	NO	259	100

When practice level is determined out of 180 male students 102(56.7%) of them had bad practice while the rest 78(43.3%) had good practice. From 79 females about 9(11.4%) of them had bad practice while 70 (88.6%) of them had good practice. (Figure 2)

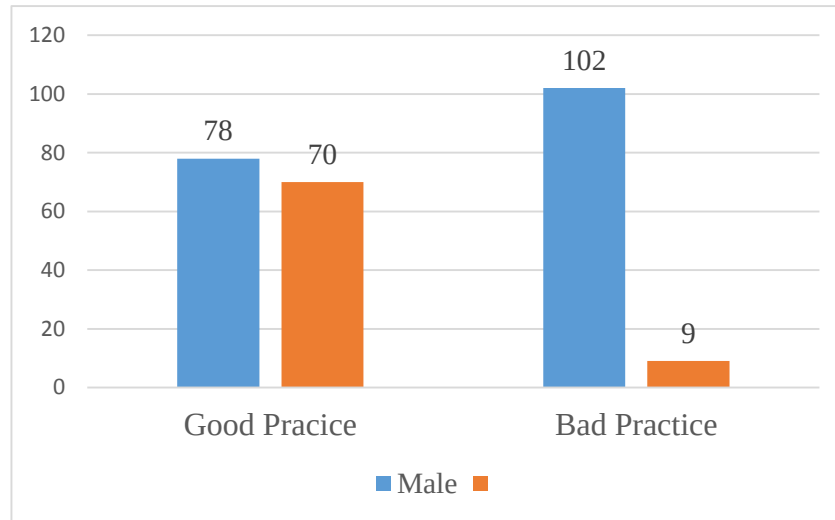


Figure 3: Overall practice of substance use of students by sex among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia

From 111(42.9%)of respondents with bad practice the greater number was occupied by second year students which accounts about 25 students from 52 respondents and makes it about 48.1% while the lowest numbers were recorded in third and sixth year students with respective percentage of 44.7% and 26.5%.

Table 7: Substance use in the past 12 months by year of study among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, 2018

Practice Score	Year of Study						Total
	First	Second	Third	Fourth	Fifth	Sixth	
Good Practice	29/61.7%	27/51.9%	21/55.3%	17/45.9%	29/56.9%	25/73.5%	148/57.1%
Bad Practice	18/38.3%	25/48.1%	17/44.7%	20/54.1%	22/43.1%	9/26.5%	111/42.9%
Total	47/100%	52/100%	38/100%	37/100%	51/100%	34/100%	259/100%

5.6. Current of Use of substances

This study showed that about 99(38.2%) of the students currently use at least one of the substances. From 99 of respondents who uses substance currently, the greater number was occupied by second year students which accounts about 23 students from 52 respondents and makes it about 44.2% of their class. While the lowest numbers were recorded in sixth year students because only 7 of them were using currently making the their percentage 20.6% from their class. (Table 8)

Table 8: Current use of substance by year of study among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, 2018

Do you use any substance currently?	Year of Study						Total
	First	Second	Third	Fourth	Fifth	Sixth	
No	31/66%	29/55.8%	22/55.9%	23/62.2%	28/54.1%	27/79.4%	160
Yes	16/34%	23/44.2%	16/44.1%	14/37.8%	23/45.1%	7/20.6%	99
Total	47/100%	52/100%	38/100%	37/100%	51/100%	34/100%	259

5.7. Current Substance use

Out of 78 current chat users 64 (82.15%) were males while 14(17.9%) of them are females. From 44 of current users 33(75%) of them are males and 11(25%) of them females. Out of 12 cigarette users 9(75%) of them are males while 3(25%) of them females.(Table 9)

Table 9: Current use of substance by sex among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, 2018

Which substance do you use currently?	Male	Female	Total
Chat	64 (82.1%)	14(17.9%)	78(100%)
Alcohol	33(75%)	11(25%)	44(100%)
Cigarette	9(75%)	3(25%)	12(100%)

5.8. Substance use frequency per week

This study showed that 181(69.9%) of the students never use chat currently but the figures of the students who use chat currently are 20(7.7%), 46(17.7%), 9(3.5%), and 3(1.2%) with frequency of Once a week, Twice a week, Thrice a week and more than four times a week

respectively. 215(83%) of the respondents never use alcohol currently while 41(15.8%) of them use it once a week, 3(1.2%) of them twice a week and none of the respondents use alcohol more than twice. Finally, 247(95.4%) of the students never use cigarette currently, 5(1.9%) of them use cigarette it once a week, 1(0.4%) of them use it thrice a week and 6(2.3%) of them use it more than four times a week.(*Table 10*)

Table 10: Current use of substance among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, 2018

Per week	Chat	Alcohol	Cigarette
Never	181(69.9%)	215(83%)	247(95.4%)
Once	20(7.7%)	41(15.8%)	5(1.9%)
Twice	46(17.7%)	3(1.2%)	0(0%)
Thrice	9(3.5%)	0(0%)	1(0.4%)
More than four times	3(1.2%)	0(0%)	6(2.3%)

5.9. Reasons to use Substance

Stress was perceived as the main cause of using substance by about 233(86.5%) respondents followed by peer pressure by 29 (10.8%) respondents and the effect of promotion through media 7(2.7%).(*Figure 3*)

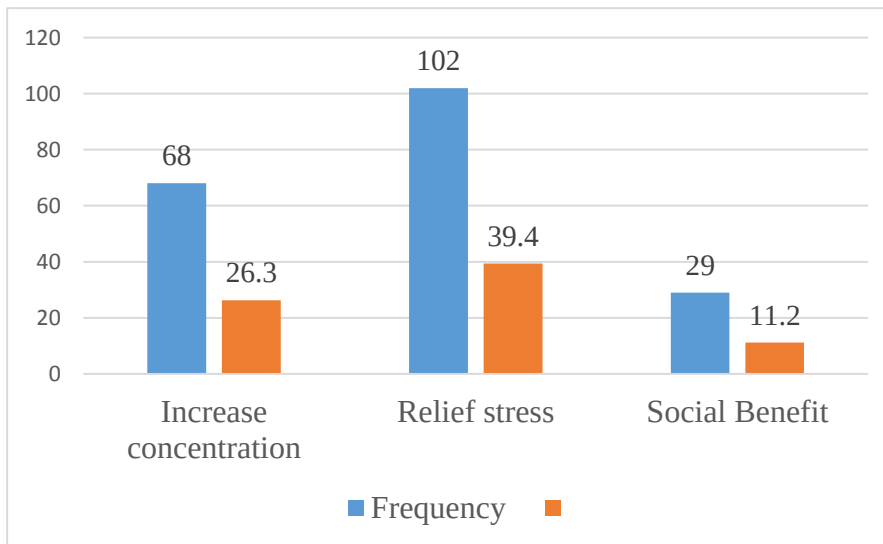


Figure 4: Reasons to use substance among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, 2018

5.10. Benefits of substance use

Relieving stress was most given answer as the possible benefit of using substance by 102(39.38%) respondents. The other responses were “Increase Concentration”, “No Benefit” and Social Benefit” with respective figures of 68(26.25%), 60(23.17%) and 29(11.20%). (Figure 4)

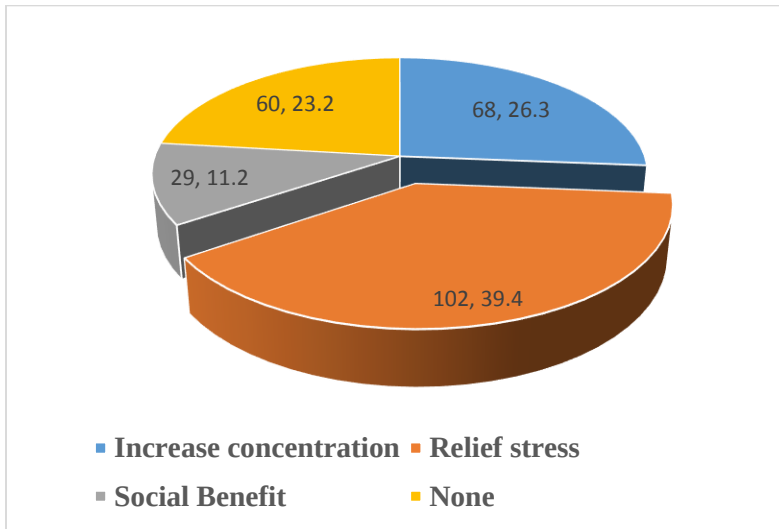


Figure 5: Benefits of substance use among undergraduate medical students in SPHMMC, Addis Ababa, Ethiopia, SPHMMC, 2018

6. Discussion

This study assessed the knowledge, attitudes and practices towards substance use among SPHMMC students and associated factors. In this study the overall prevalence of substance use for at least one substance was 42.9%.

In study done in Haramaya, This is lower than a similar study in Haramaya University which was 62.4%. [4]The difference in magnitude from that of Haramaya University might be due to the difference in the study area where in that part of the country there is easy availability and accessibility of substances especially chat which is frequently taken by students, and is relatively socially acceptable due to different sociocultural environment.

The prevalence of substance use in this study was 42.9%, which is similar to a study in Axum University, Northern Ethiopia, where the prevalence of substance use was 45.9%. [4]In Tabriz University of medical science study nearly one third of respondents (32%) had tried addictive substances (cigarettes, opium, cannabis, and heroin) in the previous 6 months. [12] On the other hand, a study previously conducted in the Islamic Republic of Iran reported that 24% of students had used at least 1 illicit drug at least once in their life and 75% had never used drugs [7]

All of the students in this study knew or at least heard of alcohol, tobacco and khat. They also knew about negative impacts on human health. Their source of information were books, mass media, Personal experience, and Friends with respective figures of 110(42.5%), 57(22.0%), 56(21.6%) and 36(13.6%).

In the study done in Nairobi University, Kenya most of the students (80.2%) knew the psychological effects on use. [7] The knowledge discrepancy from this study may be because of two reasons the first one is the Nairobi study included other substances that were never included in this study like Cocaine and Heroin whereas the second reason could be it included non-medical students.

In this study, There was disagreement on using of all the drugs with the following percentages 197(76.1%), 232(88.6%), and 179 (69.1%) for alcohol, tobacco, and chat and respectively. In study done in Kenya, There was strong disapproval of all the drugs in the following percentages 46.5%, 54.2%, and 44.8% for alcohol, tobacco, and chat respectively. [7] Again the

discrepancy may be due to inclusion of non-medical students, who don't have sufficient knowledge, in the latter study.

When we see the disagreement of the substance use in this study the males disagreed on use of chat, tobacco and Alcohol with the respective percentages of 115(63.8%), 164(91.1%) and 136(75.6%). The females also disagreed on use of chat, tobacco and Alcohol with the respective percentages of 64(81%), 68(86.1%) and 61(77.2%). For all of the substances the females disapproved more than the males. For most of the drugs the females disagreed up on use of substance more than the males, this could be part of gender identity as a result of differential socialization.

In study done in Kenya, There was strong disapproval for use of the drugs by both sexes. The males strongly disapproved use of alcohol, tobacco, chat and bhang in the respective percentages 45.2%, 53.2%, 43.8% and 64.4%. The females also strongly disapproved use of alcohol, tobacco, chat and bhang in the respective percentages 48.3%, 55.7%, 46.4% and 64.1. [7]

In this study, Stress was perceived as the main cause of using substance by about 233(86.5%) respondents followed by peer pressure by 29 (10.8%) respondents and the effect of promotion through media 7(2.7%)

The reasons were given for drug use among the youth in Addis Ababa on the perceived benefits such as enabling the user to study, do hard work /over work, for fun and get rid of shyness, rebellion and forget about one's problems. Others, however, indicated that some youth use drugs out of curiosity, for fun or due to peer pressure. Furthermore, social/peer pressure was assigned as the major reason why the youth abuse drugs. Furthermore, the major reasons given for drug use among the youth was based on perceived effects or benefits of the drugs such as makes the users feel high, strong, stay awake for a long time, forget their emotional and social problem. [13]

In study done in Mekelle University, the findings revealed that, the major causes are; peer pressure, academic adjustment related factors, psychological, social factors, environmental factors and socio-economic factors. [6]

Whereas in study done in Abu Dhabi, 'Weakened/breakdown of religiosity' was ranked as the primary reason for substance use by 34.2% followed by 'peer pressure' (28.3%) and 'free time' (26.6%). [14]

In study done in Haramaya University, different reasons were mentioned by students for the use of drugs. The reasons mentioned for chewing Khat by the respondents were as follows: 190 (45.4%) to increase academic performance, 108 (25.8%) to get personal pleasure, 92 (23%) to get relief from tension, 68 (16.2%) to stay awake, 68 (16.2%) due to peer influence, 43 (10.3%) due to academic dissatisfaction, 27 (6.4%) to get acceptance by others, 23 (5.5%) to be sociable, 17 (4.1%) to increase pleasure during sex, and 11 (2.6%) due to religious practice. [4]

7. Limitations of the study

- The study has restricted the study to only undergraduate students and used self-administered questionnaire which needs students to give self-reported use of substances that may tend to underestimate substance use.
- The study could not tell what knowledge or attitude the individual students had before and after initiation into drug use. Therefore, the role of knowledge and attitude on initiation into use could not be assessed.

8. Strength

- The study has strength in that it involved students from all year of study and used larger sample size.
- The study attempted to see what forces the students to use substances.

9. Conclusions

The study has identified that substance use is a problem among SPHMMC student. Common substances seemed to be agreed up on using were Khat, alcohol and cigarette in descending order. All of the students had knowledge of health effects problem that could arise from using substance but the prevalence is still high. Among the users the prevalence was higher among males than females and females are less likely to have a bad practice. In this study the most common reasons is to get relief from stress.

10. Recommendation

- There should be ways to council students on how to win stress in medical school without using substance.
- Universities need to monitor their students.
- Future work is also needed to explore the factors that assist students in abstaining from drug abuse/help sustain abstinence over time.

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Annexes

ANNEXE 1: QUESTIONNAIRE ENGLISH VERSION

QUESTIONNAIRE TO BE FILLED BY STUDENTS

Introduction

Dear student,

The purpose of this questionnaire is to gather data for my study on knowledge, attitude and practice on substance use. The success of the study highly depends on your genuine response for the items in this questionnaire. Assuring you that the response you provide in this questionnaire will be kept confidential and are used only for research purpose, I kindly ask your cooperation in filling the questionnaire honestly and completely.

Part 1: Socio Demographic Data (circle your answers)

No.	Questions	Response options	Remark
101	What is your age?	1. ≤ 19 year 2. 20–24 Year 3. ≥ 25 Year	
102	What is your sex?	1. Male 2. Female	
103	What is your ethnicity?	1. Amhara 2. Oromo 3. Tigray 4. Other(Specify)_____	
104	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 4. Other(Specify)_____	
105	What is your year of study?	1. First year 2. Second year 3. Third year 4. Fourth year	

		5. Fifth year 6. sixth year	
106	How much pocket money do you get monthly? (in Birr)	_____	

Part two: knowledge on Substance Abuse (circle your answers)

No.	Questions	Response options	Remark
201	Which of the following drugs do you know-about or have you heard of?	1.Alcohol 2.Tobacco 3.Khat (Chat) 4.All	
202	Which are the various ways of using these drugs? (can give more than answer)	1.Drinking 2.chewing 3. Injection 4. Sniffing 5.Smoking 6.All	
203	Do you think the above listed substances are addictive?	1.Yes 2.No	
204	Do you think using substance affect educational performance?	1.Yes 2.No	
205	Does using substance have impact on human health?	1.Yes 2.No	If response No skip to Q207
206	If your answer to Q205 is yes, list some of the impacts	_____ _____ _____ _____	

207	Which of the following substance is highly associated with lung cancer?	1.Alcohol 2.Tobacco 3.Khat (Chat)	
208	Which of the following substance is usually associated with chronic liver disease?	1.Alcohol 2.Tobacco 3.Khat (Chat)	
209	Do you think using substance predispose to STI?	1.Yes 2.No	
210	What is your source of information?	1.Personal Experience 2.Books 3.Mass Media 4.Friends	

Part three: Participant attitude towards Substance Abuse

(Please use  mark to indicate your answer)

No.	Agree or disagree	Agree	Disagree	Remarks
301	Substance use is a problem in SPHMMC?			
302	To action of chewing chat?			
303	To action smoking cigarette			
304	To action of drinking alcohol			

Part four: Participants practice related to substance use (circle your answers)

No.	Questions	Response options
401	Do you often take substance in larger amount or over a longer period than you intended?(In the last 12 months)	1.Yes 2.No
402	Do you continue using substance despite your knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance? (In the last 12 months)	1.Yes 2.NO
403	Do you crave or have strong desire to use substance? (In the last 12 months)	1.Yes 2.No
404	Do you spend a great deal of time in activities necessary to obtain, use or recover from the substance's effect? (In the last 12 months)	1.Yes 2.No
405	Have you had unsuccessful efforts to cut down or control substance use?(In the last 12 months)	1.Yes 2.No
406	Do you give up or reduce social, occupational, or recreational activities to use substance? (In the last 12 months)	1.Yes 2.No
407	Do you give up or reduce social, occupational, or recreational activities to use substance?	1.Yes 2.No
408	Have you continued using substance despite your persistent or recurrent social problems caused or exacerbated by its effect? (In the last 12 months)	1.Yes 2.No
409	Do you recurrently use substance in such way that it results in failure at work, school or home? (In the last 12 months)	1.Yes 2.No
410	Do you use any substance currently?	1.Yes 2.No
411	Which substance do you use currently(more than one answer is possible) If your response is no skip question number 412,413and 414	1.chat 2.Alcohol 3.cigarette
412	How often do you use chat?(per week)	1.Never 2.Once 3.Twice 4.Thrice

		5.More than four times
413	How often do you use Alcohol? (per week)	1.Never 2.Once 3.Twice 4.Thrice 5.More than four times
414	How often do you use cigarette? (per week)	1.Never 2.Once 3.Twice 4.Thrice 5.More than four times
415	What do you think are the main causes of substance use in SPHMMC?	1.Stress 2.Peer pressure 3.Media 4. Other.....
416	What do you think are the main benefits of using any of the substances?	1.Increase concentration 2.Releif stress 3.Social Benefits 4. Other.....