

The Prevalence and Pattern of Social Drug Abuse Among Students of Rift Valley University College, Bishoftu Campus, 2014, Bishoftu, Ethiopia

Sisay Tamiru Kumesa*, Mustefa Ahmed Mohammed, Esayas Tadesse Gebremariam, Belayneh Kefale Gelaw, Muluneh Fromsa Seifu and Tirumurgan G

Department of Pharmacy, College of Medicine and Health Sciences, Ambo University, P.O. Box: 19, Ambo, Ethiopia

Abstract

Background: Social drug include all substances and chemicals that act in the central nervous system, leaving the individual dependent upon prolonged use. College students are at higher risk of substance abuse. Since this is a serious problem to the individual users, the community and the country as whole, this problem has to be researched.

Objectives: To determine the prevalence and pattern of social drug abuse among students of RVUC, Bishoftu campus.

Methods: A cross sectional study was conducted on a sample of 356 students that are selected by employing conventional sampling procedure.

Results: A total of 356 students were participated in the study. The response rate was 97.7%. One hundred eighty eight (54.0%) of the respondents were males, 168(48.3%) in the age group of 21-25 years, 176(50.6%) Oromo, 196(56.3%) Orthodox and 164(47.1%) of the students were from second year. The overall life time and current prevalence of social drug use among the study subjects were 156(44.8%) and 136(39.1%) respectively. The life time prevalence of alcohol drinking, khat use and cigarette smoking among the study participants were 40.2%, 35.6% and 18.4% respectively. Similarly, the current prevalence of alcohol drinking, khat chewing and cigarette smoking were 35.6%, 29.9% and 14.9% respectively. The most common reason for social drugs abuse among university students were to for relaxation with friends 84(53.8%), peer pressure 72(46.2%) and to get relief from stress 56(35.9%) respectively.

Conclusion: The study has identified that substance abuse is a serious problem among RVUC student. The commonly abused substances were alcohol, khat, and cigarette in descending order. Most of the students started substances abuse during their High school and preparatory study period. This study indicates that adolescents and youths should be educated about the problem of abusing social drugs and higher institutions should teach their students about the health risks and socioeconomic problems associated with substances abuse.

Keywords: Social drugs; Drug abuse; Prevalence; Rift Valley University College

Introduction

Background

Health is defined as a state of complete physical, mental, and social well-being and not merely absence of disease or infirmity. The definition is applied to physical, mental, psychological, social, and spiritual aspects of the individual person. During the past forty years, there has been a growing concern regarding the risk factors associated with youth physical health and mental well-being [1,2].

The definition of drugs as stated in the International Convention of 1961 for Narcotic drugs, and of 1971 for psychotropic substances, includes all substances and chemicals that should not be used for any purpose other than for medical and scientific research. To date, there are 131 internationally controlled drugs which are to be used under strict medical prescription and/or for scientific research. If used for purposes otherwise, they are called illicit drugs. In the past two decades, drug use has spread widely at an unprecedented rate and has reached every part of the globe [3].

Drug Abuse is defined as a maladaptive pattern of substance use leading to clinically significant, impairment or distress as manifested by one or more of the following occurring within a 12 month period: recurrent substance use resulting in the failure to fulfill major roles like obligations at work, school or in the home; recurrent substance use in situation in which it is physically hazardous; for example driving automobile when impaired by substances use; recurrent substance

related legal problems and continued substances use despite recurrent social and interpersonal problems [4].

Drug abuse and associated problems are of current global concern. It has become an epidemic in some parts of the African region. The common substances abused in most African countries are alcohol, tobacco, cannabis or marihuana and khat. In Ethiopia, alcohol, khat and tobacco are the most widely abused drugs. Reports show that these substances are widely used among students (both college and high school) in Ethiopia [5]. Khat can be described as a herbal product consisting of the leaves and shoots of the shrub *Catha edulis* forest (celarsraceal). Khat contains the alkaloid stimulants cathinone (alpha amino propiophenone) in addition to more than 40 alkaloids, glycosides, tannins and terpenoids.

Cathinone is said to be the main active ingredient of Khat and it

***Corresponding author:** Sisay Tamiru Kumesa, Department of Pharmacy, College of Medicine and Health Sciences, Ambo University, P.O. Box: 19, Ambo, Ethiopia, Tel: +251-913-5583; E-mail: sisaytamiru83@gmail.com

Received January 08, 2015; **Accepted** January 26, 2015; **Published** February 03, 2015

Citation: Kumesa ST, Mohammed MA, Gebremariam ET, Gelaw BK, Seifu MF, et al. (2015) The Prevalence and Pattern of Social Drug Abuse Among Students of Rift Valley University College, Bishoftu Campus, 2014, Bishoftu, Ethiopia. J Pharma Care Health Sys 2: 131. doi:10.4172/2376-0419.1000131

Copyright: © 2015 Kumesa ST, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

has amphetamine like activity [5] Khat is a central nervous stimulating drug. Thus, the principal features of the 'khat experience' are described as increased levels of alertness, ability to concentrate, confidence, friendliness, contentment and flow of ideas. In a khat chewing session, initially there is an atmosphere of cheerfulness, optimism and a general sense of wellbeing. After about 2 hours, tension, emotional instability and irritability begin to appear, later leading to feelings of low mood and sluggishness. Chewers tend to leave the session feeling depleted. The psychoactive effects of khat are not only pleasurable, but there are also some psychoactive phenomena following khat-euphoric sessions (6).

The tobacco plants *nicotiana tabacum* and *nicotiana rustica* are processed by drying to give rise to different types of tobacco products such as pipe tobacco, cigars or cigarette. All tobacco products are used for the primary objective of getting the stimulating effects of nicotine, the active ingredient of tobacco. Nicotine is a ganglionic cholinergic receptor agonist, which causes the stimulation of the central nervous system [6].

Tobacco is one of the abused substances that could cause addiction. The nicotine in cigarette smoke is known to have an addictive effect, so that they develop dependency and tolerance. Then this dependency exposed them to withdrawal symptoms such as restlessness, irritable behavior, less able to concentrate if they try to stop abruptly. In addition to these addiction problems, smokers will be exposed for the potential hazardous substances of cigarette smoke [4].

Smoking is currently considered one of the greatest problems in public health worldwide, and it is one of the most preventable causes of death. Globally, the use and sale of substances such as alcohol and tobacco is causing substantial levels of health problems. Cigarette smoking has been described as a "gate way" substance towards illicit drug use among adolescents. Although most smoking initiation occurs before the age of 18, there is a population of college students who start smoking while attending college. Thus, beyond High school and adolescence, some individuals may still be at risk for developing a nicotine addiction [7,9].

The health problems due to cigarette smoking include lung cancer, atherosclerotic CVS disease, intrauterine growth retardation, spontaneous abortion, antepartum hemorrhage, female infertility, PUD, COPD, sexual dysfunction in men. On the top of these, smokers get higher risk for developing coronary heart disease and myocardial infarction [10].

The most common alcohol is ethanol. Judged on a molar basis, the consumption of ethanol far exceeds that of any other drug. The ethanol content of various drinks ranges from about 2.5% to about 55%. And the size of the normal measure is such that a single drink usually contains about 8-12 g ethanol [11].

Alcoholism is an international problem and had touched every corner of the world, both developed and developing countries. There is no doubt that every country in the world, including Ethiopia incurs substantial cost as a result of physical effects seen in sexual activity with excessive drinking is degeneration and dysfunction of sex glands though a small amount can lower inhibition and make the person more relaxed and more apt or eager to engage in social and sexual activity [12].

Although it is believed that small amount of alcohol per day prevent heart disease, excessive drinking affect the heart. There is direct relationship between heavy alcohol drinking and cardiomyopathy. Alcoholism also causes oral, pharyngeal, and liver cancer [5].

Long term ethanol consumption causes liver disease, progressing to cirrhosis and liver failure. It also resulted in neurological degeneration resulting in dementia and peripheral neuropathies. Excessive consumption in pregnancy causes impaired fetal development, associated with small size abnormal facial development and other physical abnormalities, and mental retardation [11].

Abrupt withdrawal from alcohol results in serious consequences including death unless properly managed. One who has built tolerance and dependency on alcohol, abrupt withdrawal after 8-9 hours produce tremors, hallucinations, mild seizures, loss of appetite after 2-4 days, delirium, rapid heart rate, delusion, convulsion, and even death, if these cases are not treated with appropriate drugs. If alcohol is abused by pregnant women, it additionally results to the fetus in fetal alcohol syndrome [12,13].

Other types of abused substances in addition to the above described health problems, they do cause potential socio-economic problems and these abused substances make addicted individuals to participate in criminal activities, fighting and problem in driving.

Statement of problem

A substance abuse is an international problem, especially in developing countries. Drug abuse is a major public health, social and individual problem. It is a serious problem by itself and by far it is also an aggravating factor for economic crises and hence for our poverty. More over as it is also a predisposing factor for HIV/AIDS, so strongly emphasis should be given to alleviate these problems [2,11].

Students and youngsters are mostly at greater risk for this problem. Alcohol and other related problems are becoming more and more a public health concern. The misuse of alcohol represents one of the leading causes of preventable death, illness and injury. This abuse is believed to be associated with increasing amounts consumed, frequency of use and groups involved. This gives evidence that the people mostly affected are the young and strong who can contribute effectively to the economy of the country. Increasing youth involvement in substance use and abuse is a major threat to national development, family stability and social security. The youth need to be protected [14].

Significance of the study

This investigation was initiated to fill the gap of the study in RVUC, Bishoftu campus students and give convenient ways for solving it. Researchers have been documented on many parts of Ethiopia. But to our knowledge, no or little research has been done on prevalence and determining factors of social drugs in RVUC, Bishoftu campus. Finally, it may be used as a recent valuable data for further works on similar topics.

Objectives

General objectives

To assess the prevalence and pattern of social drug abuse, among RVUC, Bishoftu campus students.

Specific objectives

To determine the prevalence of alcoholism, smoking and khat chewing habit in RVUC, Bishoftu campus students.

- To determine the reasons for practicing substance abuse among RVUC, Bishoftu campus.

- To determine knowledge of social-economic impact of alcoholism, smoking and cigarette smoking among RVUC, Bishoftu campus students.
- To assess the presence of tolerance, dependence and their attitude towards cessation of these substances of abuse among RVUC, Bishoftu campus students.
- To determine the perception of devastating consequences of alcoholism, chewing khat and smoking on health and related conditions among RVUC, Bishoftu campus students.

Methods and Materials

Study area

The study was conducted in Rift valley University College, Bishoftu campus. It is located in Bishoftu, Oromia region at a distance of 47 km away from Addis Ababa, Ethiopia. Bishoftu is a town and separate woreda of Ethiopia, lying south east of Addis Ababa. It was formerly known as Debre Zeyit. The town is located in the East (Misraq) Showa zone of the Oromia region, and has an elevation of 1,920 metres (6,300 ft). It is a resort town, known for five crater lakes. RVUC is located in Bishoftu. It is teaching students both in TVET and Degree program, each containing 9 departments in regular, extension and weekend program. There are a total of 3544 students both in TVET and Degree programs each containing 1235 and 2309 students respectively, for the year 2013/14.

Study period

The study was conducted from March to April, 2014 at RVUC, Bishoftu campus.

Study design

A cross sectional study was conducted by a structured self administered questionnaire. Quantitative methods were employed in the data collection.

Population

Source Population: The study was conducted on all students of RVUC, Bishoftu campus.

Study Population: A sample of 355 students was selected by employing conventional sampling procedure.

Inclusion and exclusion criteria

Inclusion Criteria: All Degree program students who wanted to participate in the study were included for the study

Exclusion Criteria: All TVET students are excluded from the study.

Sample Size determination

The sample size was estimated by the formula

$$n = z^2 p (1-p) / d^2$$

n = the minimum sample size required

p = the estimate of prevalence rate for the population (%)

d = the margin sampling error tolerated (%)

z = the standard normal variable at (1- α)% confidence level and α is mostly 5% that is with 95% confidence level.

P = Value since there was no any prevalence related to this study, it

was taken to be 0.5 to maximize the sample size.

$$\text{Hence the sample size was, } n = (1.96)^2 (0.5) (1-0.5) / (0.05)^2 = 384$$

Using the formula which represents 2309 degree program students, the final sample size was determined as: Where source of population is less than 10,000 we use the formula below

$$nf = n / [1 + (n/N)] \quad nf = 384 / [1 + (384/2309)]$$

$$nf = 323$$

Where, nf = adjusted sample size

n = calculated sample size

N = source of population

It was assumed that there are students who were not willing to answer the questionnaire due to different reason, so that 10% of nf is added to compensate the contingency.

$$Nf = 10\% \times 323 = 32$$

$$Nf = 323 + 32 = 355$$

Where Nf is final sample size.

Therefore the number of students included in this study was 355.

Sampling technique

First students were stratified based on year of study. Then a simple random sampling technique was applied to select individuals in each year of study from the list of students in their respective batch. Students from each year of study were selected proportionally to their population size.

Data collection

Data was collected by administering a structured questionnaire among the sampled students. The prepared questionnaire was distributed by data collectors after they got orientation by principal investigators.

Data analysis

The data were analyzed using SPSS Version 16 and simple descriptive statistics were used for data analysis. Data checking and cleaning were done by principal investigator on daily bases during collection.

Variables Dependent variables

- Drug abuse
- Alcohol, khat and cigarette use

Independent variables

- Age
- Gender
- Religion
- Income

Ethical consideration

For all activities carried out in RVUC, Bishoftu campus for doing the research, permission was requested using an official letter detailing the objective of the study from department of medicine and other health science, Ambo University and letter of consent was obtained from RVUC, Bishoftu campus. The purpose of the study was explained

to the study subjects. Any misunderstanding from the student side was rectified.

Result

Socio-Demographic characteristics

A total of 356 students were participated in the study. From this 348 students filled the questioners fairly completed. The response rate was 97.7%. The mean age was 22.0 years. One hundred eighty eight (54.0%) of the respondents were males, 168 (48.3%) in the age group of 21-25 years, 176 (50.6%) Oromo, 196 (56.3%) Orthodox and 164 (47.1%) of the students were from second year. 213 (61.2%) of students had a monthly income of 100-500 (Table 1).

Magnitude of substance use among students of RVUC, Bishoftu campus

The overall life time and current prevalence of social drug use among the study subjects were 156(44.8%) and 136(39.1%) respectively. The life time prevalence of alcohol drinking, khat use and cigarette smoking among the study participants were 140(40.2%), 124(35.6%) and 64(18.4%) respectively. Similarly, the current prevalence of alcohol drinking, khat chewing and cigarette smoking were 124(35.6%), 104(29.9%) and 52(14.9%) respectively.

Variables	Frequency (n)	Percentage (%)
Gender		
Male	188	54.0
Female	160	46.0
Age Group		
15-20	68	19.5
21-25	168	48.3
26-30	108	31.0
>30	4	1.2
Ethnicity		
Oromo	176	50.6
Amhara	100	28.7
Tigrie	44	12.6
Gurage	20	5.8
Others*	8	2.3
Religion		
Orthodox	196	56.3
Muslim	52	14.9
Protestant	88	25.3
Catholic	8	2.3
Others**	4	1.2
Year of study		
First year	100	28.7
Second year	164	47.1
Third year	84	24.2
Income		
<100	48	13.8
100-500	213	61.2
>500	87	25.0

N. B. *SNN, **Jehovah, no religion

Table 1: Socio-demographic characteristics of RVIUC students (n=348), Bishoftu, Ethiopia, June, 2014.

Among the ever users the prevalence was higher among males 108 (57%) compared to females 48 (30%). Also Higher among Oromo's 64 (41%) than other ethnic group, Orthodox 104 (66%) than other religions, between the age of 20-24[84 (53.8%)] than other age group, first year 76 (48.7%) than other batches and students whose income was 100-500 [80 (51.3%)] than other groups.

From a total of 140 alcohol drinkers, 68 (48.6%) and 44 (31.4%) used it occasionally and once weekly respectively. Similarly 56 (45.2%) and 48 (38.7%) of khat chewers used it occasionally and once weekly respectively. However, 28 (20.0%) alcohol drinkers and 20 (16.1%) khat chewers used it on daily bases. Among the smokers 12 (18.8%) smoked one-two cigarettes, 20 (31.2%) smoked three- four cigarettes and 32 (50.0%) smoked more than four cigarettes per day (Table 2).

Number of drugs used in their life time

Among the ever users of social drugs, 128(82.1%) students used social drugs in combination whereas 28 (17.9%) students were used only one drug. Among those who used social drugs in combination 64 (50.0%) used alcohol and khat Table 3.

Reasons for substance use

Reasons given for social drugs use were, for relaxation with friends 84 (53.8%), relieve stress 56 (35.9%), peer pressure 72 (46.2%), to keep alert while studying 52 (33.3%) and to be sociable (15.4%).

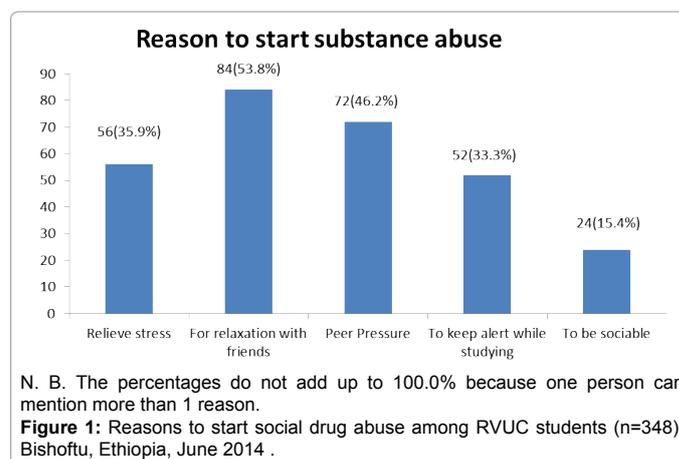
The reasons mentioned for Alcohol ever use were: For relaxation with friends 72 (51.4%), due to peer pressure 68 (48.6%), both to get relief from stress and to keep alert while studying 52 (37.1%) and to be sociable 16 (11.4%).

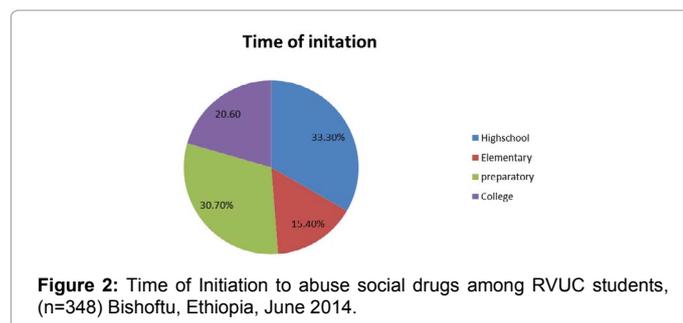
Among 124 students who reported ever used khat, 60 (48.4%) used khat for relaxation with friends, 56 (45.1%) to keep alert while studying, 48 (38.7%) due to peer pressure, 44 (35.5%) to get relief from stress and 20 (16.1%) to be sociable.

Reasons for cigarette smoking were: To get relief from stress 40 (62.5%), both peer pressure and for relaxation with friends 36 (56.3%), to keep alert while studying 8 (12.5%) and to be sociable 4 (6.3%) Figure 1.

The time in which students started to use abused substances

Nearly 52 (33.3%) of the ever users started to use social drugs during High school life. 48 (30.7%) participants started when they were preparatory school students. 24 (15.4%) and nearly 32 (21.6%) of the respondents had started when they were at elementary and college





had knowledge of the social effect of abusing social drugs. Majority of the students, 276 (79.3%) mentioned economic problem as the most social effect of using this drugs. 120 (34.5%) and 152 (43.7%) of the students were also mentioned increased number of crimes and decreased productivity as social effect of using these drugs respectively.

Proportion of abusers according to their intention to stop

Out of 156 students grouped as ever users, 104 (66.7%) wanted to stop social drug use and 52 (33.3%) of them don't wanted to stop Table 5.

Discussion

In this study, the overall life time and current prevalence of social drug use among the study subjects were 156 (44.8%) and 136 (39.1%) respectively. This study was in line with studies done in Aksum University (2013) which the overall life time and current prevalence of psychoactive substances use among the study subjects were 45.9% and 44.8% respectively. These findings were lower than a similar study done among college students in Eldoret, Western Kenya in 2011, which the lifetime prevalence rate of any substances use was 69.8%. The difference indicated might be due to the population difference under study [15,16].

This study revealed that the life time and current prevalence of alcohol use was 140 (40.2%) and 124 (35.6%) respectively. These findings were comparable to a study done in Debre Markos and Aksum University in 2013 in which 35.4% and 32.8% were current alcohol users respectively [15,17].

This finding indicated that the life time and current prevalence of khat use was 124 (35.6%) and 104 (29.9%) respectively. This was consistent with studies done in Jimma University in 2009, which the current prevalence of khat chewing was 33.1%. However, this study was higher than a study done in North West Ethiopia in 2002, which the life time and current prevalence rate of that of khat chewing was 26.7% and 17.5% respectively and a study done in Saudi Arabia in 2013 with current prevalence rate of 23.1%. This could be explained by the difference in study area. For example, the cultivation and consumption of khat is practiced widely in Oromia and it is more a part of the culture than that of North West Ethiopia [18-20].

This finding indicated that life time and current prevalence of cigarette smoking was 64 (18.4%) and 52 (14.9%) respectively. These findings were similar to studies done in West Indies in 2010 with prevalence rate of 17%. This study was higher than a study done in Debre Markos In 2013 which the lifetime and current prevalence was 7.8% and 4.4% respectively. It was also higher than a study done in North West Ethiopia in 2002, which current prevalence of cigarette smoking was found to be 8.1%. These differences might be also due to difference in study area, social acceptance to the habit and study time difference [17,19,21].

This study showed that the habit of substance abuse was higher in males than females, which is in line with many researches in our country [5,17]. This could be because females are culturally more restricted than males.

The present study reported that among the ever users of social drugs, majority of the students 128(82.1%) used social drugs in combination and among these, 64 (50.0%) used alcohol and khat together. These findings were higher than a similar study done in Mekelle University in 2011 which among the ever users of substances, 58.1% students used only one drug whereas 41.9% were poly drug users. Bishoftu is one of the countries in Ethiopia which has many recreational places. Most

Characteristics	Gender		
	Male n (%)	Female n (%)	Total n (%)
Substance use	Male n (%)	Female n (%)	Total n (%)
	Yes	No	
Ever Used	108(57.4%)	48(30.0%)	156(44.8%)
	80(42.6%)	112(70.0%)	192(55.2%)
Current users	92(49.0%)	44(27.5%)	136(39.1%)
	96(51.0%)	116(72.5%)	212(60.9%)
Alcohol			
	Yes	No	
Ever Used	92(49.0%)	48(30.0%)	140(40.2%)
	96(51.0%)	112(70.0%)	208(59.8%)
Used in the last 12 months	92(49.0%)	48(30.0%)	140(40.2%)
	96(51.0%)	112(70.0%)	208(59.8%)
Current Users	80(42.6%)	44(27.5%)	124(35.6%)
	108(57.4%)	116(72.5%)	224(64.4%)
Khat			
	Yes	No	
Ever Used	92(49.0%)	32(20.0%)	124(35.6%)
	96(51.0%)	128(80.0%)	224(64.4%)
Used in the last 12 months	92(49.0%)	32(20.0%)	124(35.6%)
	96(51.0%)	128(80.0%)	224(64.4%)
Current Users	76(40.4%)	28(17.5%)	104(29.9%)
	112(59.6%)	132(82.5%)	244(70.1%)
Cigarette			
	Yes	No	
Ever Used	56(29.8%)	8(5.0%)	64(18.4%)
	132(70.2%)	152(95.0%)	284(81.6%)
Used in the last 12 months	56(29.8%)	8(5.0%)	64(18.4%)
	132(70.2%)	152(95.0%)	284(81.6%)
Current users	48(25.5%)	4(2.5%)	52(14.9%)
	140(74.5%)	156(97.5%)	296(85.1%)

Table 2: The prevalence of social drug use among RVUC students (n=348) by sex, Bishoftu, Ethiopia, June 2014.

Combination types	Gender					
	Male		Female		Total	
	Yes	%	Yes	%	Yes	%
Alcohol+Cigarette	12	16.6	-	-	12	9.4
Alcohol+Khat	40	55.5	24	42.9	64	50.0
Khat+Cigarette	12	16.6	-	-	12	9.4
Alcohol+Khat+Cigarette	8	11.1	32	57.1	40	31.2

Table 3: Prevalence of social drugs abuse combination type by sex among RVUC students, Bishoftu campus, Ethiopia, June 2014.

school respectively Figure 2.

The prevalence of health risk of social drug abuse as perceived by RVUC students

From all the respondents 320 (92.0%) of them had a knowledge of health risks that could arise from using social drugs. The most commonly mentioned health problems were lung disease 204 (58.6%), liver disease 168(48.3%), heart disease 180(51.7%) and sleep disturbance 152 (43.7%) Table 4.

The prevalence of social-economic impact of social drug abuse as perceived by RVUC students

From all the students participated in the study 328 (94.3%) of them

Problems encountered	Social drug abuse	
	Yes	%
Lung disease	204	58.6
Sleep disturbance	152	43.7
Heart disease	180	51.7
Poor appetite	132	37.9
Liver disease	168	48.3
Headache	124	35.6
Decreased sexuality	72	20.7

N. B. The percentages do not add up to 100.0% because one person can mention more than 1 health problem

Table 4: Prevalence of health effects of social drug abuse as perceived by RVUC students, Bishoftu, Ethiopia, June 2014.

Attitude	Social drug abuse	
	Frequency	Percentage
Positive	104	66.7
Negative	52	33.3
I can't stop	24	46.2
I don't know	16	30.7
I can't study	12	23.1

Table 5: The attitude of RVUC student's towards stopping use of social drugs, Bishoftu, Ethiopia, June 2014.

people and youth from Addis Ababa and neighbor country choose this country to spend their leisure time. So, in these recreational areas there is a high availability of social drugs and during their recreation many people use these drugs. This high availability of drugs might contribute to the higher prevalence among Rift valley University students than in Mekelle University [22].

In this study 84(53.8%) of the students used social drugs for relaxation with friends, while 72 (46.2%) and 56 (35.9%) used social drug due to peer pressure and for relieve from stress. This study was consistent to a study done in Eldoret, Western Kenya in 2011, which most reason given for the substance use were to relax (62.2%) and relieve stress (60.8%). These findings were also consistent with a study in Debre Markos in 2013, which relief from academic stress 51.8%, for relaxation 34.1% and socialization 21.5% were among the reasons for khat chewing [16,17].

The present study also indicated that 52 (33.3%) of the respondents started to use social drugs during High school life and 48 (30.7%) participants started when they were preparatory school students. This result was similar to a study done in Mekelle University in 2011, which 31% of the respondents started to use abused substance during secondary school life and a study done in Eastern Ethiopia in which khat chewing was prevalent among high school students. This shows that High school and preparatory students are at higher risk for experimentation of social drug abuse [22].

This study revealed that, from all the students participated in the study 328 (94.3%) of them had knowledge of the social-economic effect of using social drugs, which was similar to a study done in North West Ethiopia in 2002, which 90.8% and 80.4% of the respondents believe that smoking and chewing khat had socio-economic problem. This study also revealed that, 276 (79.3%) of the students believe that using social drugs had economic problem. 120 (34.5%) and 152 (43.7%) of the students were also believed that increased number of crimes and decreased productivity were also a socio-economic effect of using these drugs respectively [19].

This Finding revealed that, out of 156 students grouped as ever users, 104 (66.7%) wanted to stop social drug use. This study was higher than studies done in Mekelle University (2011) were 49.6% of the students had intention to stop. This difference could be explained by difference in knowledge of health risk. In this study, 320(92.0%) of them had knowledge of health risks that could arise from using social drugs [22].

Conclusion

The study has identified that substance abuse is a serious problem among RVUC student. The commonly abused substances were alcohol, khat, and cigarette in descending order. Among the ever users the prevalence was higher among males than females and among Oromo's than other ethnic group. In this study the most common reasons are for social drug use among students was for relaxation with friends for alcohol and khat, and to get relief from stress for cigarette. Most of the students started substances abuse during their preparatory school and first year university study period. Most of the students had knowledge of health effects and socio-economic problem that could arise from abusing social drugs although the prevalence is still high.

Recommendation

- Colleges and health bureau should design education about consequence of khat chewing, alcohol drinking and cigarette smoking for students, their parents and the community at large to bring behavioral change.
- Universities need to monitor and teach their students, about the health risks and socioeconomic problems associated with substances use.
- Future work is also needed to explore the factors that assist students in abstaining from drug abuse/help sustain abstinence over time.

References

1. Grad FP (2002) The Preamble of the Constitution of the World Health Organization. *Bull World Health Organ* 80: 981-984.
2. UNPIN (1994) International Conference on Population and Development (ICPD). Cairo: ICPD.
3. Fissehaye G, Kassaye M, Teklu T (1999) Drug use among high school students in Addis Ababa and Butajira. *Ethiopian Journal of Health Development* 13: 101-106.
4. World Health Organization (1993) The ICD-10 Classification of Mental and Behavioral Disorders. Geneva.
5. Eskiner E, Gedif T (2006) Prevalence of khat, cigarette and alcohol use among students of Technology and Pharmacy, Addis Abeba University. *Ethiopian pharmaceutical Journal* 24: 116-124.
6. Kennedy JG (1987) The Flower of paradise-The institutionalized use of the drug Qat (khat) in North Yemen.
7. Weiss MG, Cohen A, Eisenberg L (2001) Mental health in international public health. Edited by Merson MH, Black RE, Mills AJ. Aspen publishers, Maryland, USA, pp. 331-378.
8. Gilliland FD, Islam T, Berhane K, Gauderman WJ, McConnell R, et al. (2006) Regular smoking and asthma incidence in adolescents. *Am J Respir Crit Care Med* 174: 1094-1100.
9. Reed MB, Wang R, Shillington AM, Clapp JD, Lange JE (2007) The relationship between alcohol use and cigarette smoking in a sample of undergraduate college students. *Addict Behav* 32: 449-464.
10. Braunwald E, Fauci S, Hauser L, Kasper L (2005) In alcoholism and cigarette smoking. *Harrisons Principle of Internal Medicine* (16th Edn), Mc Graw hill, USA, pp. 2573-2580.

11. Dale M, Moore P, Rang H, Ritter J (2006) Drug dependency and drug abuse. *Pharmacology* (5th edn.), Churchill living stone, India, pp. 598-605.
12. Amdur M, Doull J, Kassasene C (2001) In alcoholism and cigarette smoking in cassarate and Doulls companies: 354-450.
13. John V, Manfred A, Nilsin K, Raymond J (1996) In alcoholism and cigarette smoking. Principle and application of toxicology, Crc Press, Netherlands.
14. Antwi JD, Sam Adjei, Asare JB, Robert Twene (2003) A national survey on prevalence and social consequences of substance (drug) use among second cycle and out of school youth in Ghana.
15. Gebreslassie M, Feleke A, Melese T (2013) Psychoactive substances use and associated factors among Axum University students, Axum Town, North Ethiopia. *BMC Public Health* 13: 693.
16. Atwoli L, Munгла PA, Ndung'u MN, Kinoti KC, Ogot EM (2011) Prevalence of substance use among college students in Eldoret, western Kenya. *BMC Psychiatry* 11: 34.
17. Tesfahun Aklog, Gebeyaw Tiruneh, Girmay Tsegay (2013) Assessment of substance abuse and associated factors among students of Dedre Markos poly Technique college in Debre Markos Town, East Gojjam zone, Amhara regional zone state, Ethiopia. *Global journal of medical research* 13.
18. Kalayu M (2009) Effect of substance use on academic achievement of health officer and medical students of jimma University, southwest Ethiopia. *Ethiop J Health Sci* 19.
19. Yigzaw K (2002) Cigarette smoking and khat chewing among college students in North West Ethiopia. *Ethiopian Journal of Health Development* 16: 9-17.
20. Alsanosy RM, Mahfouz MS, Gaffar AM (2013) Khat chewing among students of higher education in Jazan region, Saudi Arabia: prevalence, pattern, and related factors. *Biomed Res Int* 2013: 487232.
21. Dhanookdhary AM, Gomez AM, Khan R, Lall A, Murray D, et al. (2010) Substance use among university students at the St Augustine campus of the University of the West Indies. *West Indian Med J* 59: 641-649.
22. Kidan Abrha Teferi (2011) Psychoactive substance abuse and intention to stop among students of Mekelle University, Ethiopia.