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PREVALENCE OF SUBSTANCE ABUSE AND
ITS ASSOCIATED FACTORS AMONG THE
STUDENTS OF THE RIFT VALLEY
UNIVERSITY COLLEGE, BISHOFTU,
EAST ETHIOPIA

ZNAČAJ ZLOUPOTREBE PSIHOAKTIVNIH
SUPSTANCI I NJIHOVIH UDRUŽENIH
FAKTORA MEĐU STUDENTIMA
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Key words

Prevalence, Substance abuse, Alcohol,
Khat, Cigarette

Ključne reči

Prevalenca, Zloupotreba psihoaktivnih
supstanci, Alkohol, Khat, Cigarete

Abstract

Background: Today it is very difficult to exclude a single community in the world where substance abuse is not a very serious ongoing public health problem. The college culture of substance abuse will incur a huge financial and health burden on the society. **Objective:** Therefore, the main objective of the present study was to assess the prevalence of social drug abuse and its associated factors among the students of the Rift Valley University College at Bishoftu. **Methods:** College based cross-sectional study design with quantitative method using students of Bishoftu Rift Valley University College as source population was used. **Results:** Of 318 questionnaires to be filled, 290 were complete with a response rate of 91.2%. The most common substances used in the study area were alcohol, cigarette and khat with life time prevalence of 60.7%. The current prevalence of substance use is about 63.1%. According to CAGE-AID parameters (Cut down, Annoyed, Guilty, Eye opener-Adapted to include drug), 22.8% were alcohol abusers, followed by khat (20.7%) and cigarette (18.3%). Most of the students started to use social drugs at college (42.8%) and secondary school level (30.7%). Most of the respondents used social drugs to relax (25.3%), to follow role model (17.5%), influenced by peer (17.1%) & due to availability of substances (13.5%). Upon usage, the majority of the students suffered from health, social and financial problems. **Conclusion:** The prevalence of substance abuse is very high affecting future generation. These results necessitate the intervention of substance abuse. Therefore, further investigation and designing of rehabilitation and treatment program is required from concerned bodies. Regular counseling and peer group education can also minimize the substance use practice.

INTRODUCTION

Substance use refers to the use of any psychoactive substances or drugs other than their clinical use. Today it is very difficult to exclude a single community in the world where substance abuse is not a very serious ongoing public health problem. Globally around 190 million drug users were reported. Out of these substance abusers, 40 million serious illnesses or injuries were identified each year accompanied by huge financial and social burden on the community [1, 2]. Survey on consumption of substance abuse indicated

majority being used in developed nations. But, it is also headache for the poor nations recently [1]. Currently use of substances such as alcohol, khat leaves (*Catha edulis*) and tobacco has become one of the rising major public health and socioeconomic problems worldwide [3].

The start of substance abuse dated back to early century when people use different parts of plants as medicine for relieving different health conditions. Their use were more common among males as report from European Union Member States and United States indicated [4]. However, current study confirm more spread of substance use among

the young generations [5]. The history in Africa is recent one with common substances being alcohol, cannabis and khat [3]. The suggested idea for widespread of substance use in Africa was importing of a broad range of drugs to many African countries. Of more importance, however, is the rapidly increasing use of alcohol in Sub-Saharan Africa [6]. Reports from African countries (Kenya, Namibia, Swaziland, Uganda, Zambia, Zimbabwe, Tanzania) indicates risky alcohol and illicit drug use among students [7, 8].

Addictions to substances affect the country in many ways. \$400 billion per year was estimated to be spent on substance abuse which worth nearly double the expenditure on medicines [1, 6]. Many reports also confirm physical and /or mental health complications associated with abuse of alcohol, tobacco and other substances. Eventhough the world is moving towards substance use tackle, many adolescents have limited awareness of their adverse consequences [5, 9]. In America around \$700 billion a year were spent in order to control substance abuse related health care costs, crime, and lost productivity [10].

Substance use is a growing problem in Ethiopia, as in many developing countries. Adolescents and young adults were the most affected group because of loose control in the country [11]. Alcohol and khat are the most frequent substances of abuse followed by cannabis and solvents [3]. Beside being the major causes of human health problem, substance use also affect public safety and family security [5, 12]. Thus, the prevalence rate of alcohol, tobacco and other drug use are matters of concern to policymakers in most countries [13]. Researches done in different colleges and schools of Ethiopia also confirmed wide spread substance use [3, 5, 14, 15, 16]. But, as far as our knowledge concerned, there was no previous report on substance abuse and its associated factors among students of Rift Valley University College Bishoftu (RVUCB) campus, Bishoftu, East Ethiopia. Thus, this study may help as baseline information to examine strategies for intervention towards prevention of substance abuse and for designing a treatment and rehabilitation program on social drug abuse for using college students.

MATERIALS AND METHODS

Study Design

College based cross- sectional study design with quantitative method using students of Bishoftu Rift Valley University College as source population was used. Rift Valley University College Bishoftu campus has a total of 2890 students (Male, 1645 & female, 1245) located in Bishoftu town, East Shewa Zone. Bishoftu is the closest town to Addis Ababa with well developed resorts at 45km from the capital city. The economy of the town is based on agriculture. Beside this, the town has a number of training and research centers with the Air force, the Ethiopian management institute, faculty of Veterinary Medicine of Addis Ababa University and Haramaya University of Agricultural research center.

The sample size was calculated using a single population proportion formula, $[n = (Z_{1-\alpha/2})^2 p(1-p)/d^2]$. The minimum sample size based on the equation was 384. However, since the sample was going to be taken from relatively small pop-

ulation (N=1170), the adjusted minimum sample size was calculated from the above estimate using adjusted formula $[N/(1+N/n), n= 289]$. Finally by taking non- response rate into consideration, 10% contingency of the sample size (n) was added and the total final minimum sample size became 318. Systemic random sampling technique was used to select study subjects from the entire students currently enrolled in the Bishoftu Rift Valley University College. Eighteen departments were hosted under the college; Six departments in degree and thirteen departments in diploma program. Accounting was being given both in degree and diploma program. The study populations were eight departments which were selected by lottery method from 18 departments of the college.

Of the total study population of the 8 departments, 1170 (878 diploma & 292 degree) of each batch were taken. The selected departments were stratified by batch. After proportionally allocated to size, the actual data was collected from respondents selected by using simple random sampling from each sex.

The study was conducted from Jan 28 to Feb. 08, 2013. The students who were willing to participate in the study and those who were present during data collection period were included in the study. A structured questionnaire was used to collect the necessary information. The variables collected include socio-demographic and socio- cultural characteristics as well as history of social drugs abuse and consequences associated with social drugs abuse. The collected data analyzed using SPSS version 20 statistical package. Chi- square analysis was used to test for statistical significance. A p-value of ≤ 0.05 was considered statistically significant since Fisher exact test and person chi-square was used from SPSS for p value.

Study variables: Age, Sex, Ethnicity, Religion, Role model, Year of study, Monthly income, Prevalence of social drugs abuse and consequences associated with social drugs abuse were variables of the study.

Substance Abuse Evaluation (Alcohol, khat, cigarette)

Inorder to identify substance abusers CAGE-AID questions were used as stated in research done by Aklog et al (2013) [3].

“CAGE- AID- QUESTIONS

1. Have you ever felt you should cut down on your drinking or drug use?
2. Have people annoyed you by criticizing your drinking or drug use?
3. Have you felt bad or guilty about your drinking or drug use?
4. Have you ever had a drink or used drugs first thing in the morning to steady Your nerves or to get rid of a hangover (eyeopener)?

Scoring: Item responses on the CAGE questions were scored 0 for „no” and 1 for „yes” answers. A total score of two or greater positive answers of the above four questions was considered as a fulfillment of the criteria of substances abused”.

Operational Definitions

Abuse:- When a respondent who uses social drugs reports at least two positive responses to CAGE- AID questions.

CAGE-AID: is derived from the four questions of the tool: Cut down, Annoyed, Guilty, and Eye-opener; it helps to determine if substance abuse exists.

Current use:- having consumed any abused social drugs (khat, Alcohol cigarette) at least once in the past 30 days.

Substance use:- The use of psychoactive drugs mostly available in the study area and when taken by a person can modify perception, mood, cognition & behavior or motor function (Alcohol, khat & cigarette in case of this study).

Substance abuse:- For this study it was defined as the abuse of alcohol, khat, cigarettes and illicit substances by college students and fulfills the criterion (CAGE \geq 2).

Ethical Consideration

Ethical clearance and permission was obtained from school of Pharmacy, College of Public Health and Medical Sciences, Jimma University. Before the start of data collection, the Dean of the College and Directorate of education sectors in Bishoftu Rift Valley University College was asked

Table 1: Socio-demographic characteristics of sampled students among BRVUC students, Bishoftu, Oromia, East Ethiopia.

Variables		Frequency (n)	Percentage (%)
Sex	Male	164	56.6%
	Female	126	43.4%
	Total	290	100%
Age	15-19	72	24.8%
	20-24	119	41.0%
	25-29	68	23.5%
	30-34	31	10.7%
	Total	290	100%
Ethnicity	Oromo	167	57.6%
	Amhara	81	27.9%
	Tigre	21	7.2%
	Gurage	15	5.2%
	Others'	6	2.1%
	Total	290	100%
Religion	Orthodox	204	70.3%
	Protestant	63	21.7%
	Muslim	17	5.9%
	Catholic	4	1.4%
	Others''	2	0.7%
	Total	290	100%
Year of study	1 st	96	33.1%
	2 nd	92	31.7%
	3 rd	89	30.7%
	4 th	13	4.5%
	Total	290	100%
Pocket money per month	<400	64	22.1%
	401-500	91	31.4%
	501-600	88	30.3%
	>600	47	16.2%
	Total	290	100%

BRVUC: Bishoftu Rift Valley University College

permission. Upon data collection, the students gave their consent after being informed that the information collected would be kept anonymous and participation would be totally voluntary.

RESULTS

Socio-demographic Characteristics

Of 318 questionnaires to be filled, 290 were complete with a response rate of 91.2%. The majority of the study participants were males (164, 56.5%), in the age range of 20-24 (119, 41%), Oromo in ethnicity (167, 57.6%), Orthodox with respect to religion (204, 70.3%), first year students (96, 33%) and have a monthly income of 401-500 Ethiopian birr (91, 31.4%) [Table 1].

The most common substance used in the study area as reported by the participants were alcohol (151, 19%), cigarette (151, 19%), khat (127, 16%), and others (4, (0.5%) with life time use of 60.7%. The most commonly used was alcohol (38, 15.8%) followed by khat (27, 11.2%) and cigarette (16, 6.6%). Currently, 183 (63.1%) of the study participants used social drugs in Rift Valley University College, Bishoftu Campus. Of these, alcohol was the leading one (31, 12.6%) [Table 2, Figure 1].

Table 2: Types of social drugs available, social drugs life time used and social drugs currently used among students of BRVUC, Bishoftu, Oromia, East Ethiopia.

Social drugs	Scientific name	n(%)	SLTU n (%)	SCU n(%)
Alcohol	Alcohol	151(19)	38(15.8)	31(12.6)
Cigarette	Nicotiana tabacum	151 (19)	16(6.6)	24(9.7)
Khat	Cathaedulis	127 (16)	27(11.2)	27(10.9)
Others	-	4 (0.5)	-	-

Other= shisha; %= Percentage; SDLTU= Substance life time use; SCU= Substance current use; BRVUC: Bishoftu Rift Valley University College

The starting time of substances among the majority of the students was in the college (42.8%) while small numbers (2.4%) started before joining school [Figure 2].

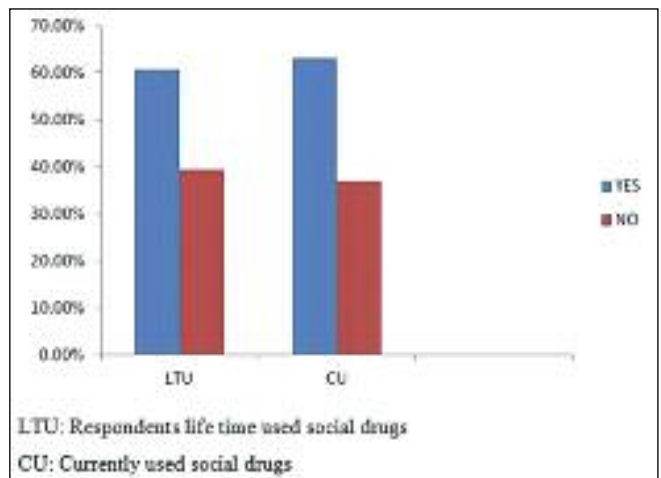


Figure 1: Prevalence of respondents life time and currently used social drugs among BRVUC students Bishoftu, Oromia, East Ethiopia.

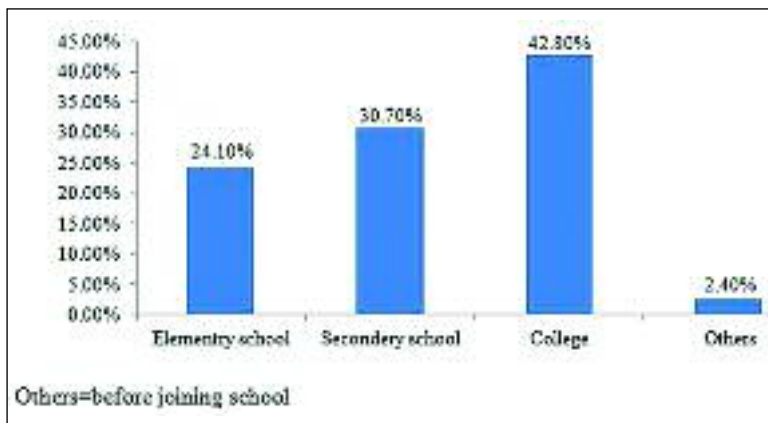


Figure 2: Time of social drugs use initiation among BRVUC students, Bishoftu, Oromia, East Ethiopia, Feb.2013.

The associations of different factors with substance abuse was demonstrated in table 3. Sex, religion & year of study ($p < 0.05$) significantly affect alcohol abuse. Using the CAGE- AID criteria ($CAGE > 2$), we calculated 66 (22.8%) of the students as alcohol abusers. Males (46, 69.7%), Orthodox (50, 75.8%) and 3rd year students (28, 42.4%) were dominant than females, other ethnic groups, and other

Table 3: Alcohol, Khat and Cigarette abuse in association with factors towards abuse among BRVUC students, Bishoftu, Oromia, East Ethiopia

Variables	Alcohol abuse		Association	Khat abuse		Association	Cigarette abuse		Association
	Yes Frequency (%)	No Frequency (%)		Yes Frequency (%)	No Frequency (%)		Yes Frequency (%)	No Frequency (%)	
Sex									
Male	46 (69.7%)	118 (52.7%)	$X^2=6.01$ $P=0.014$ $P<0.05$	44 (73.3%)	120 (52.2%)	$X^2=8.67$ $P=0.003$ $P<0.05$	37 (69.8%)	127 (53.6%)	$X^2=4.64$ $P=0.031$ $P<0.05$
Female	20 (30.3%)	106 (47.3%)		16 (26.7%)	110 (47.8%)		16 (30.2%)	110 (46.4%)	
Total	66 (22.8%)	224 (77.2%)		60 (20.7%)	230 (79.3%)		53 (18.3%)	237 (81.7%)	
Age									
15-19	12 (18.2%)	60 (26.8%)	$X^2=3.13$ $P=0.372$ $P>0.05$	10 (16.7%)	62 (26.9%)	$X^2=4.25$ $P=0.236$ $P>0.05$	12 (22.6%)	60 (25.3%)	$X^2=0.424$ $P=0.935$ $P>0.05$
20-24	31 (47%)	88 (39.3%)		31 (51.7%)	88 (38.3%)		21 (39.6%)	98 (41.4%)	
25-29	14(21.2%)	54 (24.1%)		13 (21.7%)	55 (23.9%)		14 (26.4%)	54 (22.8%)	
30-34	9(13.6%)	22 (9.8%)		6 (10%)	25 (10.9%)		6 (11.3%)	25 (10.5%)	
Total	66(22.8%)	224 (77.2%)		60 (20.7%)	230 (79.3%)		53 (18.3%)	237 (81.7%)	
Ethnicity									
Oromo	41(62.8%)	126 (56.3%)	$X^2=3.35$ $P=0.5$ $P>0.05$	39(65%)	128 (55.6%)	$X^2=3.86$ $P=0.425$ $P>0.05$	34 (64.2%)	133 (56.1%)	$X^2=2.93$ $P=0.570$ $P>0.05$
Amhara	15 (22.7%)	66 (29.5%)		12 (20%)	69 (30%)		12 (22.6%)	69 (29.1%)	
Tigre	7(10.6%)	14 (6.3%)		3 (5.1%)	18 (7.8%)		2 (3.8%)	19 (8%)	
Gurage	2(3%)	13 (5.8%)		4 (6.7%)	11 (4.8%)		4 (7.5%)	11 (4.6%)	
Others	1(1.5%)	5 (2.2%)		2 (3.3%)	4 (1.7%)		1 (1.9%)	5 (2.1%)	
Total	66 (22.8%)	224 (77.2%)	60 (20.7%)	230 (79.3%)	53 (18.3%)	237 (81.7%)			
Religion									
Orthodox	50 (75.8%)	154 (68.8%)	$X^2=12.9$ $P=0.005$ $P<0.05$	45 (75%)	159 (69.1%)	$X^2=27.7$ $P=0.000$ $P<0.05$	39 (73.6%)	165 (69.6%)	$X^2=1.19$ $P=0.754$ $P>0.05$
Protestant	7(10.6%)	56 (25%)		4 (6.7%)	59 (25.7%)		9 (17%)	54 (22.8%)	
Muslim	6 (9%)	11 (4.9%)		11 (18.3%)	6 (2.6%)		4 (7.5%)	13 (5.5%)	
Catholic	3 (4.5%)	1 (0.45%)		-	-		1 (1.9%)	3 (1.3%)	
Others	-	-		-	-		-	-	
Total	66(22.8%)	224 (77.2%)	60 (20.7%)	230 (79.3%)	53 (18.3%)	237 (81.7%)			
Year of study									
1 st year	26(39.4%)	70 (31.3%)	$X^2=18$ $P=0.000$ $P<0.05$	21 (35%)	75 (32.6%)	$X^2=14.0$ $P=0.003$ $P<0.05$	23 (43.4%)	64 (30.8%)	$X=25.4$ $P=0.000$ $P<0.05$
2nd year	7(10.6%)	85 (37.9%)		8 (13.3%)	84 (36.5%)		4 (7.5%)	77(37.1%)	
3rd year	28(42.4%)	61 (27.2%)		27 (45%)	62 (26.9%)		24 (45.3%)	57 (27.4%)	
4th year	5(7.6%)	8 (3.6%)		4 (6.7%)	9 (3.9%)		2 (3.8%)	39 (19%)	
Total	66(22.8%)	224 (77.2%)		60 (20.7%)	230 (79.3%)		53 (18.3%)	237 (81.7%)	
Pocket money per month									
<400ETB	10 (15.2%)	54(24.15%)	$X^2=5.12$ $P=0.163$ $P>0.05$	15 (25%)	49 (21.3%)	$X^2=10$ $P=0.018$ $P<0.05$	10 (18.9%)	54 (22.8%)	$X^2=5.30$ $P=0.151$ $P>0.05$
401-500ETB	18 (27.3%)	73 (32.6%)		15(25%)	76 (33%)		11 (20.8%)	80 (33.7%)	
501-600ETB	23 (34.8%)	65 (29.5%)		13 (21.7%)	75 (32.6%)		21 (39.6%)	67 (28.3%)	
>600 ETB	15 (22.7%)	32 (14.3%)		17 (28.3%)	30 (13%)		11 (20.8%)	36 (15.2%)	
Total ETB	66 (22.8%)	224(77.2%)		60 (20.7%)	230 (79.3%)		53 (18.3%)	237 (81.7%)	

Other = wolayita; BRVUC: Bishoftu Rift Valley University College

class year students, respectively. Khat abuse had significant association with gender ($p=0.003$), religion ($p=0.000$), year of study ($p=0.003$), and pocket money per month ($p=0.018$). The result of the present study also showed 60 (20.7%) khat abusers based on CAGE criteria. Males, Orthodox, 3rd year students, those with pocket money per months>600 ETB were more abusers of khat.

In this study cigarette abuse had insignificant association with most of socio demographic characteristics except with gender and year of study. According to CAGE-AGE criteria, 53 (18.3%) participants were cigarette abusers. Males 37 (69.8%) than females 16(30.2%), age – group 20-24 (39.6%) than other age groups, Oromo 34 (64.2%) than other ethnic groups, Orthodox 39 (73.6%) than other religions, 3rd year 24 (45.3%) followed by 1st year students 23 (43.4%), those with pocket money per month 501- 600 ETB 21(39.6%) than others were more cigarette abusers.

The students used substances in order to relax (25.3%), influenced by peer (17.1), influenced by role model (17.5%), due to availability of substances (13.5%), religion (9.9%), relief stress (9%), avoid fear (7.2%) and others (relief anxiety) (0.5%) as depicted in Figure 3.

As indicated on the table below (Table 4) substance use had economic impact (39.9%), health problem (31.2%), and

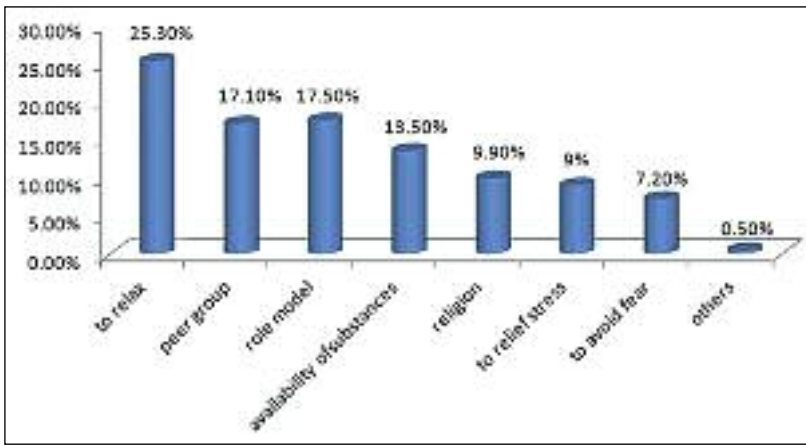


Figure 3: Reasons for use of substance abuse among BRVUC students, Bishoftu, Oromia, East Ethiopia.

social impact (28.9%) on society as reported by respondents of Rift Valley University College, Bishoftu campus students. The participants stated headache (143, 25%), fatigue (122, 21.4%), sleep disturbance (104, 18.2%), poor appetite (96, 16.8%), frightening dreams (59, 10.4%) and weight loss (46, 8.1%) as the major health problems attributed to social drug abuse. Different ways by which substance abuse expose a person to HIV/AIDS was explained by the study participants as shown in Table 4. It may leads to unsafe sex (42.7%), changes ones perception toward HIV/AIDS (41, 5%) & may increase sexual desire (15.8%).

Table 4: Social and health effects of substance abuse as reported by BRVUC students, Bishoftu, Oromia, East Ethiopia.

Perceived social effect n(%)		Health problems encountered n(%)		Perceived exposure to HIV/AIDS n(%)	
Economic impact	289 (39.9)	Headache	143 (25)	Expose to unsafe sex	302 (42.7)
Health problem	226 (31.2)	Fatigue	122 (21.4)	Changes perception toward HIV- AIDS	294 (41.5)
Social impact	210 (28.9)	Sleep disturbance	104 (18.2)	Increase sexual desire	112 (15.8)
Others	-	Poor appetite	96 (16.8)		
		Frightening dreams	59 (10.4)		
		Weight loss	46 (8.1)		
Total	725		570		708

BRVUC: Bishoftu Rift Valley University College

DISCUSSIONS

Substance abuse is the major challenging problem of the world. According to our study finding, around 60.7% of the participants used substance in their life time. This result is somewhat closer to the study done among university and college students in western Kenya where lifetime prevalence rate of any substance use was 69.8% [17]. But the prevalence is higher than the value obtained by studying the prevalence and pattern of substance use among college students of Chandigarh, North Indian (52.7%) [2] among Mekelle University, Ethiopia (20.1%) [18] and among medical students at a Nigerian University (56%) [19]. The difference may be as a result of substance availability and economic difference.

The most common substances used in the study area were alcohol, khat and cigarette which was similar to study done by Atwoli et al [2011; alcohol and cigarette] [17], Gupta et al [2013; alcohol and cigarette] [2], Gebreslassie et al [2013; alcohol, cigarette and khat] [5], Ji et al [2012; alcohol] [20], Deressa and Azazh [2011 ;alcohol, cigarette and khat] [21], Teferi [2011; alcohol, cigarette and khat] [18], Tesfaye et al [2014; Alcohol] [16] and Kalayu et al [2009; alcohol, cigarette and khat] [22]. Absence of legal system on these substances may contribute for their wide abuse.

Around 15.8% of alcohol followed by 11.2% of khat and 6.6% of cigarette were used for life time ever among RVUC Bishoftu campus students. The life time use of alcohol is lower than study done among undergraduate medical students of Addis Ababa University (31.4%) [21], college students in Eldoret, western Kenya (51.9%) [17], students of North India (53.5%) [2], urban dwellers of Tanzania (17.2%) [7], among Axum university students, North Ethiopia (34.5%) [5] but higher than study done in Rural Tamil Nadu, India (9.4%) [23] and among Students of Debre Markos Poly Technique College (13.4%) [3]. The current finding is almost closer to study done among Students of Mekelle University (16.6%) [18].

Research done on ever use of khat in different colleges of Ethiopia [North West (26.7%), 14; Axum University (28.7%), 5; Bahir Dar Town (19.6%), 24] was higher than our present results. However, it is almost similar to the study done among students of Addis Ababa University (14%) [21] and Mekele University (14.8%) [18]. The ever use of khat in RVUC Bishoftu campus was higher than the result of survey done among Students of Debre Markos Poly Technique College (7.8%) [3].

Life time cigarette smokers were more prevalent than smokers in college of Debre Markos Poly Technique (5.4%) [3]; closer to daily smokers of medical students at a Nigerian University (6%) [19]; slightly lower than smokers of medical students of Addis Ababa University (9%) [21], students of Mekele University (8.8%) [18], Axum university (9.5%) [5] and use in Urban Tanzania (8.7%) [7]; much lower than study done among college students in Eldoret, western Kenya (42.8%) [17], and college students in North West Ethiopia (13.1%) [14]. The main reason behind this difference could be the type of substance available, size of the study area and

culture. The low prevalence of cigarette in our study as compared to khat and alcohol was due to negative media promotion.

Currently the prevalence of social drugs use among students of RVUC Bishoftu campus was about 63.1% which is almost similar to study done by Aklog et al (64%) [3]; greater than study done among students of Mekelle University (33%) [18] and Axum university (44.8%) [5]. As the finding in this study indicated, currently 12.6% of alcohol, 10.9% of khat and 9.7% of cigarette were used among students of RVUC Bishoftu campus. This finding can be comparable to findings obtained from Urban Tanzania (alcohol (17.2%) and tobacco (8.7%)) [7]; much lower than study conducted among Axum university students (khat chewing, alcohol drinking and cigarette smoking were 27.9%, 32.8% and 9.3%, respectively) [5] and Gondar medical students (current use of alcohol, cigarettes & khat were 31.1%, 26.3%, and 22.3%, respectively) [25] but greater than study from undergraduate medical students of Addis Ababa University with respect to khat and cigarette where the current use was 2% and 1.8%, respectively [21].

Both the life time and current use of alcohol was higher than khat and cigarette. This difference may be due to very attractive scenes during alcohol advertisement. And the advertisers look very happy, relaxed, and sociable. Beside these, the involvement of public figures like actress, football players and athletes in the advertisement may contribute a lot for alcohol abuse.

College, secondary school and elementary school life were the time when the majority of the participants started substance use. Our study of starting time was almost similar to starting time among Students of Debre Markos Poly Technique College [3], Haramay university college [16] and Mekelle university students [18]. This strongly support the idea that elementary, secondary and college students are at higher risk for use of substances.

When asked "why did they use substance?", a belief to relax (25.3%), role model (17.5%), peer pressure (17.1%) and availability of substances (13.5%) came out to be the most common reasons for the use of these substances. Even though the percentage was less, studies in various parts of the country and the world have noted that belief to relax, influence by role models and peers, and availability of substances were the most commonly used reasons for substance use in a similar fashion to our study result [3, 16, 17, 18]. The cause might be these factors are having an effect on one's behaviour. This is an indication for several directions to be used in order to tackle substance abuse.

In this study as reported by participants, the negative consequences associated with substance abuse were medical problems (31.2%), unsafe sex (42.7%), Change ones perception toward HIV/AIDS (41.5%), Economic problem (39.9%) and social problems (28.9%). This finding is lower when compared to the study conducted among the students of Eldoret in western Kenya in which perceived negative effects attributed to substance abuse were medical problem (55.2%), unprotected sex (60.5%), engage in the sex they regretted the next day (60.5%), economic problem (60.5%), and social problem [17]. Some of the perceptions of the study

participants were explained by the reports of Derese (2011), Seme et al (2005) [6] and Nigusie et al (2013) [26] which clearly indicated the significant association of khat, alcohol and cigarette with risky sexual behavior, alcohol with HIV/AIDS and khat with gastrointestinal disorders, respectively.

Based on CAGE-AID criteria, this finding revealed that 22.8% were alcohol abusers, 20.7% were chat abusers and 18.3% were cigarette abusers, which is higher than the study conducted among Mekelle university students, 16.6% alcohol abusers followed by khat 14.8% and 8.8% cigarette abusers [18]. This might be due to the difference in method (measurement of substance abuse) & biased response of the participants.

Regarding the relationship of sociodemographic characteristics with substance use, this study indicated males were more social drug abusers (alcohol 69.7%, khat 73.3%, cigarette 69.8%) than females, age groups 20-24 (alcohol 47%, khat 51.7% and cigarette 39.6%) than other age groups, Oromo (alcohol 62.1%, khat 65%, cigarette 64.2%) than other ethnic groups, Orthodox (alcohol 75.8%, khat 75% and cigarette 73.6%) than other religions, 3rd year students (alcohol 42.4%, khat 45%, cigarette 45.3%) than other class year students and those with pocket money per month 501-600 ETB (alcohol 34.8%, khat 21.7%, cigarette 39.6%) than others.

This finding is somewhat in agreement with the study conducted among medical students of AAU, more males (25%) were alcohol abusers than females, khat abuse by males 9% & 1.5% females [21] and the study conducted in Jimma university on HO and Medical students; more males (37.2%) than females, Oromo (40.9%) than other ethnic groups, final year students (61.5%) than other class year were more substance abusers but Muslims (71.8%) than other religions & age-group 25-30 (86.7%) were more abusers [22]. This might be due to cultural resemblance but regarding religion and age - group difference in socio-demographics might matter.

With respect to factors associated with substance use, the present study came up with the following variables' statistically significant association with substance use: sex, religion & year of study ($p < 0.05$) with alcohol abuse; gender ($p = 0.003$), religion ($p = 0.000$), year of study ($p = 0.003$), and pocket money per month ($p = 0.018$) with khat; gender and year of study with cigarette. Like our finding, sex (specially being male) is associated with substance use in different researches [2, 3, 4, 7, 16, 17, 27]. The possible explanation could be high exposure to substance abuse and peer pressure more common male than female students. Substance use study done among Axum university students [5] and health officer and medical students of Jimma University also reports similar finding comparable to ours' where Sex, Religion, Ethnicity, original residence, ever drunk alcohol, ever smoked cigarette, family member and peer friends chewed khat and perceived health risk of khat chewing were found to be significantly associated with khat chewing. The reason could be due to the fact that in male students the level of substance exposure is high and peer pressure is more common than female students.

Finally the difference in our study finding discussed above could be as a result of population difference under study, difference in educational program, time of survey, and location of study site. The possible limitation of the study was response genuinity, cross-sectional nature of study, reporting errors, missed values and biases.

CONCLUSIONS

Having assessment of the prevalence of social drugs abuse and associated factors among Bishoftu Rift Valley University College students as main objective, the present study found 60.7% life time and 63% current prevalence of substance use which is very high. The most common substances abused in the study area were alcohol, khat and tobacco. According to CAGE- AID- criteria; there was significant alcohol, khat & cigarette abusers. The use of Khat,

alcohol and tobacco products is significantly associated with sex, religion, year of study, and pocket money per month. The different reasons raised by participants might have a suggestive contribution to substance use initiation. Up on using abused social drugs majority of them suffered from health & social problem. Therefore, it is necessary to intervene the practice of social drug abuse through different packages.

Acknowledgements

The authors would like to acknowledge Jimma University for facilitating our research.

Sažetak:

Uvod: Do danas je veoma teško izdvojiti jednu zajednicu na svetu gde zloupotreba psihoaktivnih supstanci ne predstavlja tekući problem javnog zdravlja. Fakultet u kome vlada zloupotreba psihoaktivnih supstanci će nametnuti ogroman finansijski i zdravstveni teret društvu.

Cilj: Dakle, osnovni cilj date studije bila je procena prevalencije zloupotrebe društvenih psihoaktivnih supstanci i njihovih udruženih faktora među studentima Univerzitetskog Fakulteta Rift Valley u Bishoftu.

Metode: Studija poprečnog preseka sa kvantitativnom metodom sprovedena na fakultetu koristeći studente Univerzitetskog Fakulteta Rift Valley iz Bishofta kao izvor stanovništva.

Rezultati: Od 318 ispunjenih upitnika, 290 je kompletirano sa stopom odgovora od 91,2%. Najčešće korišćene psihoaktivne supstance sprovedene u oblasti studije bile su alkohol, cigarete i khat sa životnom prevalencijom od 60,7%. Trenutna prevalenca korišćenja psihoaktivnih supstanci je oko 63,1%. Prema parametrima CAGE upitnika (potreba za smanjenjem konzumiranja alkohola, uznemirenost, osećaj krivice, potreba za konzumiranjem alkohola od momenta buđenja), (22,8%) je bilo zavisnika od alkohola, praćeno zloupotrebom psihoaktivne supstance khat (20,7%) i (18,3%) zavisnika od cigareta. Najveći broj studenata počeo je sa upotrebom društvenih psihoaktivnih supstanci na fakultetu (42,8%) a (30,7%) u toku srednje škole. Najveći broj onih koji su odgovorili koristio je društvene psihoaktivne supstance u cilju opuštanja (25,3%), kopiranje idola (17,5%), uticaj društva (17,1%) a (13,5%) je zavisilo od dostupnosti psihoaktivnih supstanci. Shodno konzumiranju, najveći broj studenata je patio od zdravstvenih, socijalnih i finansijskih problema.

Zaključak: Prevalenca zloupotrebe psihoaktivnih supstanci je veoma visoka i imaće uticaja na buduće generacije. Ovakvi rezultati zahtevaju preduzimanje mera prema zloupotrebi psihoaktivnih supstanci. Prema tome, potrebna su dalja ispitivanja kao i stvaranje rehabilitacionog i terapijskog programa od strane nadležnog tela. Redovna savetovanja i grupno studentsko prosvetavanje može takođe da umanjí praksu zloupotrebe psihoaktivnih supstanci.

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