

Psychosocial Factors Associated with Initiation and Continuation of Substance Abuse among Preparatory Students in Addis Ababa

Eyuel Berihun (✉ contact.eyuel@gmail.com)

st.Paul Hospital Millinum Medical college <https://orcid.org/0000-0002-9091-6308>

Bethelhem Getu

Ethiopian Public Health Institute

Habtamu wondimu

Addis Ababa University College of Social Sciences

Yenus Molla

Addis Ababa University College of Health Sciences

Research

Keywords: Substance abuse, Psychosocial factors, Addis Ababa

Posted Date: June 18th, 2020

DOI: <https://doi.org/10.21203/rs.3.rs-33685/v1>

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Abstract

Background

Substance abuse is the use of illicit drugs or the abuse of prescription or over the Counter drugs for the purpose other than those for which they are indicated or in a manner or in quantities other than directed. Substance abuse is an emerging public health problem in Ethiopia, like other African countries.

Methods

School based cross-sectional survey was employed. A total of 326 students were randomly selected from one government and two private schools. The 296 Sample size was calculated using the formula of a single population proportion and calculated using software Epi-info stat calculation by taking 31% proportion from previous study with confidence level of 95% and 5% degree of precision. Non-response rate in this study was estimated to be 10% (30). We use self-administer questionnaire to assess the physiological factors associated with initiation and continuation of substance abuse.

Results

The magnitude and the prevalence of substance abuse were 24.8% and the commonly abused were alcohol (30.8%), kchat (15.4%) and cigarette (11%). Other substances are rarely abused. The study also showed that male students were abused substance [OR, 95% CI: 3.150 (1.451, 8.685)] three times higher than that of females. In addition those who abused substances through peer pressure or [OR, 95% CI: 7.599 (4.571, 16.174)] were eight times more likely to abuse substances in contrast with those who did not. Other psychosocial factors: curiosity, poor family relationship and stress were positively associated with substance abuse.

Conclusion

substance abuse is a threat problem to the public as well as to the preparatory students of Addis Ababa; it is strong positively associated with various variables such as male students, peer pressure, curiosity, poor family relationship and stress of students. Peer pressure was the major precipitating factor for substance abuse followed by curiosity. The most commonly abused substances were alcohol, khat and cigarette. Yet, the magnitude of factors for substance abuse is high. From this, it can be generally said that substance abuse is a pressing issue for preparatory students.

Introduction

Substance abuse can simply be defined as a pattern of harmful use of any substance for mood-altering purposes. "Substances" can include alcohol and other drugs (illegal or not) as well as some substances

that are not drugs at all [1].

Ethiopia is the second largest country in Africa and the population is estimated to be around 85 million where 84.2% resides in the rural part of Ethiopia [2]. Substance abuse is an emerging public health problem in Ethiopia, like other African countries. It affects almost the entire community. Ethiopia is one of the earliest centers of producing alcohol, coffee and kchat [3]. The commonly abused substances are alcohol and kchat followed by cannabis and solvents [4]. Hard drugs like heroin and cocaine are also consumed. Illegal drugs are alcohol, prescription and over the counter medications, inhalants and solvents, and even coffee and cigarettes can all be abused to harmful excess [5].

The prevalence of substance abuse in Ethiopia is estimated to be 20.2% [6]. Youngsters, street children, high school, college and university students and unemployment are high risk groups of substance abuse in Ethiopia [4]. Some data shows substance abuse is a serious problem in Ethiopia but the government has given little attention to substance use and related factors. Psychosocial factors greatly influence initiation and contribution of substance abuse among high school students and understanding these factor has important implications for intervention and prevention of substance abuse. The government of Ethiopia considers substance abuse as a serious ongoing public health problem it affects almost every community and it has negative health consequences. However, little attention has been given to understanding of the factors related to substance abuse [7].

Psychosocial factors influence young people towards substance abuse and these factors (peer pressure, curiosity, poor familial relationship and stress) play a pivotal role for initiation and continuation of substance abuse [8]. In our country the prevalence of substance abuse is 20.2% [6].

Students aged 17 to 25 are among the high risk population of substance abusers and substance abuse also common in urban Ethiopia especially, in Addis Ababa. The study is important to examine psychosocial factors for substance abuse and uses as baseline information for intervention. To create awareness among preparatory students in Addis Ababa and to show how the substance abuse is a serious public health problem. The result of this study will benefit to:

- **FMOH:** the result from this study can be used to identify psychosocial factors associated with the initiation of substance abuse among preparatory students in Addis Ababa and the federal ministry of health provides support for the treatment and prevention of substance abuse, based on the result.
- **Stakeholders:** NGO which are involved in treatment and prevention of substance abuse and to provide technical support to promote health.
- The result of this study important for policy makers to design of the system of substance abuse rehabilitation and treatment centers.
- **Menelik II preparatory school, Radical Academy and Lazarist Catholic Secondary School:** the result of the research will give an opportunity for the community to aware of the devastating health consequences of substance abuse for a person, a family and a community.

Conceptual framework on some psychosocial factors and initiation & continuation to abused substances is illustrated as follows

Materials And Methods

The study was school-based cross-sectional survey, Quantitative method was used to found out the role of psychosocial factors on initiation and continuation of substance abuse using self-administered questionnaire. The 296 Sample size was calculated using the formula of a single population proportion for cross sectional survey and calculated using software Epi-info stat calculation by taking 31% proportion from previous study [7] with confidence level of 95% and 5% degree of precision. Non-response rate in this study was estimated to be 10% (30). The calculated sample size was 296 with non response rate the total sample size was 326 students were recruited in the study. The schools are randomly selected one government preparatory school and two private preparatory schools in Addis Ababa. Stratified sampling technique will be used to select study subjects from the entire student currently enrolled in three of the schools. A total 326 students from grades 11 and 12 will be stratified by sex and grade level of the students and subjects will be selected using a simple random sampling (lottery method).

The data were collected by three trained technical assistants. The principal investigator supervised the data collection process along with the school directors.

Data Quality Management

Three data collectors were trained for one day on data collection procedures and supervision techniques. The data collection instrument was pre-tested on 5% of the sample size in Medhanealem preparatory school with similar characteristics of the study unit that was not to be included in the main study before the actual data collection. Some questionnaire contents were modified and restructured based on pre-tested of the sample and I estimated the time for completion of the questionnaire. Close supervision of data collection procedures and data collectors was conducted strictly and frequently. Completeness of the required data was checked on the spot by the principal investigator. The questionnaire was checked for completeness and consistency before data entry by the principal investigator and the completed questionnaire was coded.

Data analysis

Obtained data were checked for accuracy and then were entered and analyzed by using SPSS Version 20.0 for statistical analysis. The prevalence of substance abuse was analyzed by descriptive statistics using frequency and percentages and Cross tabulation show the association between independent variable and dependent variable and to compare drug users with non-drug users. Bivariate statistical method was used to investigate the association between psychosocial factors (peer pressure, curiosity, family relationship and stress) and initiation and continuation of substance abuse. Multiple logistic

regression models were used for substance abuse and its associated factors and odds ratio and 95% confidence intervals were reported. Significant differences is defined as those with ($P < 0.05$).

Measurement Used to Measure Substances Abuse

CAGE-AID: CAGE Questions Adapted to Include Drug Use

Scoring

Item responses on the CAGE questions are scored 0 for "no" and 1 for "yes" answers. A total score of two or greater positive (yes) answers of the above four questions is considered as fulfill the criteria of substances abused.

1. Have you ever felt you ought to cut down on your drinking or drug use?
2. Have people annoyed you by criticizing you're 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 (eye-opener)?

Results

Socio-demographic factors of study participants

Out of the 326 students recruited, 318 of them participated in this study making the response rate of 97.5%. Most of the study participants age ranges from 18 to 25yrs old 192 (60.4%) and 180 (56.6%) of the samples were females. About 264 (83%) of the study sample were from Menelik II preparatory school, 34(10.7%) Radical Academy and 20 (6.3%) Lazarist Catholic Secondary School. Majority of the students were Orthodox followers 246 (77.4%), followed by Protestants and Muslims. The prominent father and mother occupation was government employee (33.6 & 34.3%) followed by merchant (25.5% & 19.5%).

Table 1
Socio-demographic features students from Preparatory school in Addis Ababa (N = 318) Addis Ababa, Ethiopia, April, 2014.

Variables		Number	Percent %
Age	15–17	126	39.6
	18–25	192	60.4
Sex	Male	138	43.4
	Female	180	56.6
Religion	Orthodox	246	77.4
	Muslim	30	9.4
	Protestant	36	11.3
	Catholic	4	1.3
	Others	2	0.6
Father's occupation	Government employee	107	33.6
	Merchant	81	25.5
	NGO	34	10.7
	Daily laborer	28	8.8
	Private employee	34	10.7
	Farmer	15	4.7
	Other	19	6.0
Mother's occupation	Government employee	109	34.3
	Merchant	62	19.5
	NGO	28	8.8
	House wife	35	11.0
	Daily laborer	13	4.1
	Private employee	54	17.0
	Farmer	9	2.8
Schools	Menelik II preparatory school	264	83.0
	Radical Academy	34	10.7

Variables		Number	Percent %
	Lazarist Catholic Secondary School	20	6.3
Grade level	Grade 11	170	53.5
	Grade 12	148	46.5

Magnitude and number of ever used substances students in three schools

The percentages of ever use of any substance among students were 73.4%, 70%, and 42.8% in Radical, Lazarist and Menelik respectively. Among the ever users of substances, 35% Lazarist 29.4% Radical and 20.8% Menelik students used only one drug i.e. alcohol. Whereas 10%, 7.6% and 2.9% were used two substances from Lazarist, Menelik and radical preparatory schools respectively. And the frequency of ever use of three substances among students were 11.8% in Radical, 5% in Menelik and 3.8% in Lazarist. There were also poly drug users in Menelik 3.4% and in Radical 2.9% but no in Lazarist see (Fig. 3).

Table 2

Distribution of preparatory School students ever uses "substance" in Radical, Lazarist and Menelik preparatory schools.

Any substance	Number of students		
	Radical (%)N = 34	Lazarist (%)N = 20	MenelikII(%) N = 264
Yes	25(73.4)	14(70)	113(42.8)
No	9(26.6)	6(30)	151(57.2)
Alcohol	10(29.4)	7(35)	55(20.8)
Kchat	5(14.7)	2(10)	9(3.4)
Cigarettes	2(5.9)	2(10)	5(2)
Cannabis, heroin & hashish	1(2.9)		2(0.8)
Sleeping pills	1(2.9)		1(0.4)
Other			2(0.8)
Two substance	1(2.9)	1(10)	20(7.6)
Three substance	4(11.8)	2(5)	10(3.8)
Poly substance	1(2.9)		9(3.4)

Current substances users among ever users in Radical, Lazarist and Menelik preparatory schools

Out of 73.4%, 70%, and 42.8% ever users in their life time, 71.6% in Menelik, 64% in Radical and 57.1% in Lazarist ever alcohol users were currently drunk alcohol. 30.2%, 28% and 21.4% ever kchat users were

currently chewed kchat respectively. And 42.8% of Lazarist students, 32% of Radical students and 23.9% of Menelik students were currently smoke among ever smokers. Cannabis, heroin, hashish and sleeping pills were the least current used substances. The frequency distribution of current use among ever used "drugs" by students from the different preparatory schools is displayed in Table 3.

Table 3
Current substances users among ever users in Radical, Lazarist and Menelik preparatory schools. Addis Ababa, Ethiopia.

Substance	Number of students		
	Radical (%), N = 25	Lazarist (%), N = 14	Menelik II (%), N = 113
Alcohol			
Yes	16(64)	8(57.1)	81(71.6)
No	9(36)	6(42.9)	32(28.4)
Kchat			
Yes	7(28)	3(21.4)	34(30.2)
No	18(72)	11(78.6)	79(69.8)
Cigarettes			
Yes	8(32)	6(42.8)	81(23.9)
No	17(68)	8(57.2)	32(76.1)
Cannabis, heroin & hashish			
Yes	3(12)	1(7.1)	8(7.1)
No	22(88)	13(92.9)	105(92.9)
Sleeping pills			
Yes	4(16)	0(0)	9(8)
No	21(84)	14(100)	104(92)

Out of the total participants from the three schools 87 number of students or nearly 57% were started to use substances during secondary school life. Approximately 26% students were started during their elementary life. And 17% of students were started during the time of Preparatory School Elementary School 21 (13.8%) Secondary School 118 (77.6%) Preparatory School 13 (8.6%)

Magnitude of Substance Abuse among Students in three schools

Seventy nine or 24.8% of students from all schools fulfilled the criteria of substances abuse (CAGE \geq 2). 30.8% were alcohol abusers 15.4% and 11% were kchat and cigarette abusers respectively. 3.15% abuse Cannabis, heroin and hashish and 2.1% respondent's abuse Sleeping pills. Alcohol, kchat and cigarette are the commonest abused substances among students in three of preparatory schools.

Table 4
**Prevalence of Substance Abuse among
 Radical, Lazarist and Menelik preparatory
 students (N = 318) Addis Ababa, Ethiopia.**

Variable	Frequency	Percentage
Substance abuse		
Yes	79	24.8
No	239	75.2
Alcohol Abusers		
Yes	98	30.8
No	220	69.2
Kchat abusers		
Yes	49	15.4
No	269	74.6
Cigarette abusers		
Yes	35	11.0
No	283	89.0
Cannabis, heroin and hashish abusers		
Yes	10	3.1
No	308	86.9
Sleeping pills abusers		
Yes	11	3.5
No	307	86.5

Reason for initiation and continuation of substance use

The prominent reasons for starting to use substances among students from the three schools were due to peer pressure 42.8%, curiosity 29.2%, poor family relationship 17.9% and the least was stress

10.1%

Cross tabulation of Psychosocial factors for initiation and continuation of substance abuse among students in Radical, Lazarist and Menelik preparatory school

Table 5 shows that students whose friends were substance user had more likely use substance in their life time (72.1%). Respondents who accept drug and alcohol invitation from peers had a more likelihood reporting drug use in their life. 90.5% and 66.7% of respondents were answer agree and strongly agree respectively. And students who have excellent (54.6%) and good (41%) network and relationship with peers had much higher prevalence substance use than those who had poor (31.2%) network and relationship.

Out of ever users 65.7% and 45.5% students respond agree and strongly agree respectively, and they had curious nature and try out everything this leads to use substance. Participants who had strong desire to taste substances were more likely to use substances than those who do not desire to taste and the prevalence was 83.9% agree 81.8% strongly agree. And seeking substance opportunity had also strong association with initiation and continuation of substance use among students.

Students whose parents were live together had a lowest likelihood of reporting drug use in lifetime (45.1%). The prevalence of drug abuse among respondents whose parents were separated and divorced was 48.3% & 50% respectively. Those students whose mother and or father dead had higher prevalence of substance use 64.9%. In short, those who had poor or bad relationship with father and mother would have a higher prevalence of substance use in their life time than those who had good relationship with their parents.

Among ever user of substance 52.4% of students respond feel of stress and likely to use substance than those who had no feeling of stress 39.8%. Students engaged in stressful event more likely to use substance use. 75.8% and 72.2% of students answered strongly agree and agree respectively, that being engaged in stressful event leads to initiation and continuation of substance use.

The associations of psychosocial factors or variables related to initiation and continuation of substance use were significantly present with chi-square tests as shown in Table 5.

Table 5
Cross tabulation of Psychosocial factors for initiation and continuation of substance abuse among students.

Variable	Total N = 318	Frequency	Percentage
Peer pressure			
Friends who use substance			
Yes	156	111	71.2
No	162	41	25.3
Drug invitation by friends			
Strongly disagree	108	19	17.6
Disagree	66	16	24.2
Undecided	46	29	63.0
Agree	95	86	90.5
Strongly agree	3	2	66.7
Spent time with friends			
Strongly disagree	51	8	15.7
Disagree	63	16	25.4
Undecided	41	24	58.5
Agree	156	98	62.8
Strongly agree	7	6	85.7
Peer network			
Excellent	183	100	54.6
Good	100	41	41.0
Average	19	7	36.8
Poor	16	5	31.2
Chi-sq test			*
Curiosity			
Curious nature			
Strongly disagree	54	10	18.5

Remarks: * = Association is significant with chi-square test at the 0.05 level (2-tailed).

Variable	Total N = 318	Frequency	Percentage
Disagree	45	13	28.9
Undecided	37	13	35.1
Agree	169	111	65.7
Strongly agree	11	5	45.5
Strong desire to test substance			
Strongly disagree	130	32	24.6
Disagree	43	9	20.9
Undecided	46	26	56.5
Agree	79	66	83.9
Strongly agree	22	18	81.8
Seeking substance opportunity			
Strongly disagree	155	53	34.2
Disagree	46	18	39.1
Undecided	49	27	55.1
Agree	52	42	80.8
Strongly agree	17	12	70.6
Chi-sq test			*
Family relationship			
Marital status			
Live together	220	101	45.1
Separated	35	14	48.3
Divorced	26	13	50
Father & or mother dead	37	24	64.9
Relationship with father			
Excellent	167	74	44.3
Good	39	17	43.6
Average	29	15	51.7

Remarks: * = Association is significant with chi-square test at the 0.05 level (2-tailed).

Variable	Total N = 318	Frequency	Percentage
Poor	70	37	52.9
No relationship	13	9	69.2
Relationship with mother			
Excellent	237	109	46
Good	33	16	48.5
Average	17	11	64.7
Poor	26	13	50
No relationship	5	3	60
Substance use family			
Yes	83	46	55.4
No	233	106	45.5
Chi-sq test			*
Stress			
Feel stress			
Yes	208	109	52.4
No	108	43	39.8
Stressful event			
Strongly disagree	118	31	26.3
Disagree	68	28	41.2
Undecided	9	3	33.3
Agree	90	65	72.2
Strongly agree	33	25	75.8
Chi-sq test			*
Remarks: * = Association is significant with chi-square test at the 0.05 level (2-tailed).			

Associated Factors into Substances Abuse

Variables such as socio demographic factors and reasons to start or initiate (peer pressure, curiosity, poor family relationship and stress) substance abuse were determined by logistic regression model. Variables which are significantly associated in the first model were taken and analyzed together by multivariate

logistic regression. Confounding factors were adjusted through multiple logistic regression analysis and socio demographic factors, peer pressure, curiosity, poor family relationship and stress were found to be significantly associated with substance abuse. This presented in the following paragraph. Male students who abuse substances were three times higher than female students: [OR, 95% CI: 3.150 (1.451, 8.685)]. Participants who started or initiated to use substance by peer pressure were 8 times more likely to abuse substances than those who did not [OR, 95% CI: 7.599 (4.571, 16.174)]. Respondents who began to use substances through strong curiosity [AOR, 95% CI: 2.394(1.677, 6.8 68)] were two times higher as compared to those who did not. Similarly substance abuse due to poor familial relationship and stress were 4 times [AOR, 95% CI: 3.894(1.677, 6.8 68)] and 3 [AOR, 95% CI: 2.739(1.253, 5.985)] times higher respectively than those who did not. (See Table 6).

Table 6
Association factors of substances abuse among Radical, Lazarist and Menelik preparatory students.

Variables	Substance abuse		P-Value	95% C.I.for OR
	Yes	No		
Sex				
Male	69	138	0.001	3.150(1.451, 8 .685)*
Female	10	170		
Age				
15–17	32	126	0.496	1.299(0.631, 2 .675)
18–25	47	192		
Reason to start				
Peer pressure				
Yes	68	112	0.042	8.599 (4.571, 16.174)*
No	11	40		
Curiosity				
Yes	49	58	0.006	2.394(1.677, 6.8 68)*
No	30	94		
Poor family relationship				
Yes	31	117	0.021	3.894(1.677, 6.8 68)*
No	48	35		
Stress				
Yes	17	135	016	2.739(1.253, 5.985)*
No	52	17		
Remark: * = Statistically significant at P<0.05				

Discussion

The findings of this study indicate that the prevalence of 24.8% of preparatory students in Addis Ababa were abuse substances. This high prevalence was remained slightly higher as compared with 20.2% prevalence of substance abused obtained from national findings [6]. But it is much lower than a study conducted by students from public Midwestern University (48.1%) [9].

The investigation of this study showed that the commonly abused substances were alcohol 30.8%, kchat 15.4%, and 11% cigarette. 3.5% of students abuse Cannabis, heroin, and hashish and 2.1% of respondents were abuse sleeping pills. As compared with the prevalence, reports from Kenyan secondary school showed that alcohol 42.9% kchat 20.8% cigarette 19.8% cannabis 14.3% and sleeping pills 3.8% were the most commonly abused substances and this study also support and indicated that alcohol was the most commonly abused substance than others, which was similar to this finding [10].

The prevalence of alcohol, kchat and cigarette abuse was higher than other substances due to cultural, social and legal acceptability. Among the social substance, alcohol does not affect health when moderately consumed. It is also widely available, easily accessible (especially home remedies), high exposure to alcohol advertising and has market coverage. These are the reasons why alcohol is the most commonly abused substance, unlike other substances.

According to this study, Male students were more likely to abuse substances than female students. This is also similar to the study conducted in Mekelle university students [11]. Students who started to use substances through the influence of peer pressure were positively associated with abuse of substances. This is similar to a study conducted in Kenyan secondary school [10] and Mekelle University students; peer pressure into initiation factors for substance use was positively associated with substance abuse [11]. One of the psychosocial factors which were strongly associated with substance abuse is the curiosity of the students to explore new experiences.

Various studies highlight that the role of curiosity also has a strong positive association with the initiation and continuation of substance abuse among Hungarian secondary high school students [12]. Similarly, respondents in this who started to use substances due to poor family relationships were positively associated with substance abuse. This is in agreement with studies conducted and investigated by Paul [13] more importantly; young people with a poor relationship with their parents are likely to abuse substances than those who have healthy relationships [14]. Stress found to have a strong association with substance abuse among schools where this study was conducted. The findings of this study reveal the prevalence of ever users of substances among students was found to be 73.4%, 70% and 42.8% in Radical, Lazarist and Menelik respectively. This is lower than findings from Mekelle University students (82.7%) and students in Nigerian medical university (78%) (Igwe, 2009). And higher than Nigerian secondary school students, 63.3% [15].

The prevalence of substances among ever users of students were, 35% Lazarist 29.4% Radical and 20.8% Menelik had taken only one drug that is alcohol, whereas 10%, 7.6%, and 2.9% were used two substances from Lazarist, Menelik, and radical preparatory schools respectively in their lifetime. And the percentage of ever use of three substances among students was 11.8% in Radical, 5% in Menelik and 3.8% in Lazarist. There were also poly-drug users in Menelik 3.4% and Radical 2.9% but not in Lazarist. In contrast with findings reported from Mekelle University Among the ever users of substances, were 58.1% of students consumed only one drug whereas 42% were poly-drug users.

Substance abuse was significantly high among students of the private preparatory school compared to that of government school students in Addis Ababa. The difference in the educational program in Addis Ababa could be contributing factors to this varying rate of substance consumption.

Other findings in this survey were the time of initiation for substance use was reported to be 57% of the ever users began at secondary school. This is different from reports taken from students of Debre Markos Poly Technique College 36% during their secondary school life. The reason for this should be the different participants' study area, Addis Ababa and that what has been reported from the Debre Markos.

The survey further showed that 42.8% of the study participants were introduced and initiated to use substances by peers or friends. 29.2%, 17.9%, and 10.1% were by curiosity, poor family relationship and stress respectively. As I have already indicated that peer pressure was the prominent psychosocial factor reason for the initiation and continuation of substance abuse among students in private and government preparatory schools. These factors occur sequentially but independently of each other. This result is much lower than 75.1% of students introduced to use substances by peers in Nigeria secondary school. Similar to this, a study conducted in Kenya secondary school stated that peer pressure is the prominent reason for substance abuse.

The present study revealed that students whose friends were substance users or abusers had more likely to use a substance in their life (72.1%). Similarly, studies conducted by Pedersen & Skrondal found that students who have friends' use of substances had more likely to use substances than those who did not [16].

Participants who had a strong desire (curiosity) to try substances were more likely to use substances than those who do not and 83.9% of participants were answered agree and 81.8% strongly agreed. In agreement with other findings, 75.8% of the respondents said they first tried illegal substances were due to curiosity [17]. The difference is due to the method difference between the present study and the referred one.

Respondents whose mother and or father dead, divorced and separated had a higher prevalence of substance use 64.9%, 50%, and 48.3% respectively than those who did not. Similar reports also found by Yip et al [13] and support that students those who had very poor parent's marital relationship, bad relationship with parents, would have a higher prevalence of drug use.

Other findings from this study also that symptoms or feelings of stress likely to use substances than those who had no feeling of stress. This result also supported by Kaplow et al and he noted that the number of symptoms related to stress at baseline predicted who would start/initiate and continue to use the substance [18].

In general, the difference showed in the above discussion may be due to the population size difference in the study, and the differences in school policies and advertisement of publicity. The difference in the educational system in private and government schools between countries could also be contributing

factors for this varying rate of use and abuse of substances. Institutional property variables of schools, physical and behavioral property variables of schools, including the type of residence, institution size, location, and schools community property variables, including availability and outlet density could also be reasons for the variations.

Conclusion

This study aimed at assessing the magnitude of substance abuse and associated psychosocial factors among preparatory students. It identifies substance abuse is a threat problem to the public as well as to the preparatory students of Addis Ababa. It is strongly positively associated with various variables such as male students, peer pressure, curiosity, poor family relationship and stress of students. Peer pressure was the major precipitating factor for substance abuse followed by curiosity. The most commonly abused substances were alcohol, khat, and cigarette. Yet, the magnitude of factors for substance abuse is high. From this, it can be generally said that substance abuse is a pressing issue for preparatory students.

Abbreviations

AAU Addis Ababa University

AOR Adjusted Odds Ratio

CAGE-AID Cut down, Annoyed, Guilty, Eye-opener- Adapted to Include Drug Use

CI Confidence Interval

DACA Drug Administration and Control Authority of Ethiopia

FMOH Federal ministry of health

ID NO Identification number

IRB Institutional Review Board

NGO None governmental organization

OR Odds Ratio

SPSS Statistical package for social science

SRS Simple Random Sampling

UNODC United Nations Office on Drugs and Crime

WHO World Health Organization

Declarations

Ethical Approval

Clearance was obtained from Research and Ethical Review Committee (DRERC), Addis Ababa University, School of psychology. And Permission was obtained from preparatory school managements.

Consent for publication

Written informed consent of each study participant was obtained before data collection. confidentiality was strictly maintained during the process of assessment of psychosocial factors associated with initiation and continuation of substance abuse among preparatory students. as well as anonymity was kept during data processing and report writing. Finally findings of the study communicated to the preparatory school management body for corrective measures still keeping anonymity.

Availability of data and materials

All data generated and/or analyzed during the study are with the author and will be available on request at any given notice.

Competing interests

The authors declare that they have no competing interests

Funding

This article got some financial support for the sample collection from AAU school of psychology Moreover; all organizations had no role in the study design, data collection and analysis, decision to publish or preparation of the manuscript.

Authors' contributions

- EB: designed the study, collected the data, analyzed the data, interpreted the data and drafted the manuscript and revised the manuscript
- BG: collected the data, analyzed the data interpreted the data, and revised the manuscript
- HW: designed the study, interpreted the data, drafted and critically revised the manuscript.
- YM: analyzed the data, interpreted the data, drafted and critically revised the manuscript

Acknowledgments

First and for most I would like to thank to the Almighty GOD with his mother St Marry for helping me during those remarkable times and giving me the patience to start and finalize this work. Secondly, I would like to thank all respondents who generously and willingly fill the self-administered questionnaire (pre-test as well as final). And also I would like to thank my friends for their support especially, for my

best of all Mesay Mengstie. Finally, I would like to thank all my family, my wife Bethelhem Getu and my daughter Hasset Eyuel for their unconditional love and support.

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