

KAP SURVEY ON SUBSTANCE ABUSE AMONG UNIVERSITY PREPARATORY STUDENTS IN FOGERA DISTRICT, NORTHWEST ETHIOPIA

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Summary

Cross sectional study to assess prevalence, knowledge and attitude of substances abuse was done among 279 university preparatory students between March and August 2007. The study was done in Senior Secondary and Preparatory School, Fogera district located 625 kms from Addis Ababa, North West Ethiopia using self-administered questionnaire. Seventy five (26.88%) of the respondents were ever-tried substances. Alcohol (70.67%) and Khat (50.67%) were the most commonly used substances. Most of students took substances mainly for family/relatives reason and peer pressure. Forty six (61.33%) of students started substance use when they were in high school. Nighteen (25.33%) of students ever- tried substances faced different problems. Non- substances users (40%) were more knowledgeable than substances user students (24%) about the risk of abuse. Policy makers, governmental and nongovernmental authorities, families, religious leaders and public need to raise students' awareness and control this problem through teaching and advocating behaviors against substance abuse.

Keyword: Substance abuse, student, Ethiopia

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Introduction

In Ethiopia in 1993, lifetime prevalence rate of smoking among college students was reported to be 31.9% and this was decreased to 13% in 2001. Some studies indicated that 17% and 6.4% of students was ever used in Addis Ababa and Butajira, respectively (1, 2).

From the study conducted in 2001 among college students and instructors in North West Ethiopia, the life time prevalence rate of khat chewing were 26.7% and 42%, respectively (3,4). It is common that students chewing khat for different reasons in high schools, for example, the prevalence rate of chewing khat were 21.2% and 31% in Attaye Senior Secondary & Technique School and Butajira High School, respectively (1,5).

It is true that alcoholic beverages are widely taken by both urban and rural dwellers in Ethiopia. Alcohol drinking has social acceptance and people practicing regardless of age and sex even if the type and amount of alcohol they take and the reason for drinking differs among them. The study conducted in 1999, among Butajira and Addis Ababa adolescents, it was reported that the prevalence rate of alcohol drinking were 23% and 34% respectively (6, 7).

Substance abuse in Africa is escalating rapidly from cannabis and khat abuse to more dangerous drugs. National drug study in Nigeria showed that cannabis had been predominantly used in schools and universities, followed by cocaine and tobacco. In Zambia, 20% of university and high school students were drug users; and in Egypt, cannabis, glue and petroleum sniffing were found to be widely prevalent among students (1).

Multiple substances use like alcohol - khat, alcohol-cigarette, and khat-cigarette and alcohol – khat –cigarette in combination is not unusual in Ethiopia. As elsewhere in our country the population group that is at the greatest risk is the youth and young adults. The study conducted in 2003 among students of Attaye Senior Secondary and Technique School reported that the combine substance use rates were 29.5% (5).

Even if people use substance for different reason including for relaxation and entertainment, and social reason, the use of these substances have negative impact on social, health and economic matters. University, college and school student are the most alienable age group using substances and developing substance abuse problem. Solitary alcohol, cigarette and marijuana users are less likely to graduate from College, more likely to have poorer physical health, admitting to more diligent behavior such as stealing and acting out at school or less engaged with school (8).

In Ethiopia the recent sharp increase in khat and alcohol beverages production and consumption may affect health of individuals, especially productive age group. Even if literatures on khat, cigarette and alcohols use in high school and university/college students are available, the studies done till now was limited in that didn't cover university preparatory students. Thus the present study was undertaken with the aim of filling this gap by revealing the knowledge, attitudes and factors related with substance abuse in this study area.

Methods

Study Population:

The Woreta Giorgis Senior Secondary and Preparatory school is the only school in Fogera district which is located 625 kms from Addis Ababa. Its boundaries are South from Farta, North from Tana, West from Libokamkam and East from Dera. The Woreta Giorgis School had 4093 students of which 3236 are 9th and 10th grades, and 757 students were university preparatory. The study was conducted in Woreta because it was placed nearby the area of Khat production in addition alcoholic beverages are accessible.

Data collection:

School based cross- sectional survey was used to collect data using self administered questionnaire. A total of 282 university preparatory students (grades 11th and 12th) were participated in the study. The students were selected using a simple random sampling.

The study was conducted between March and August 2007. Data was collected using pre-tested questionnaire containing open and close ended questions. The purpose of the study was explained to the study participants for ethical clearance. The information provided by students and the identity of the students was kept confidential. The data were collected by trained final year pharmacy students.

Ethical considerations

The Research and Ethics Committee of School of Pharmacy, which is under the umbrella of Academic commission of School of Pharmacy, gave ethical approval. All information obtained was treated as confidential and no student names have been mentioned or referred to.

Data analysis

Data were entered, processed and analyzed using the Epi Info. Frequencies tables were used for data presentation using Excel spreadsheet. Association between categorical variables was analyzed using χ^2 tests. P value of 0.05 was considered statistically significant.

Results

The response rate of students was 98.93% (279). Of these, 203 (72.75%) were males and 74.19% were in the age range of 15-19 years. 48% of family / guardians occupation were farmers and Muslims accounts 14.3% of the total respondents. The socio- demographic of students is depicted in Table 1.

Seventy-five students were found to ever tried substances making the over all prevalence rate for substance abuse 26.88%. The prevalence rate had shown that alcohol was the most commonly abused substance 30(40%) followed by Khat 15 (20%), only three (4%) students ever tried cigarette smoking. Single substance use and multiple (combined) substance use rates were found to be 48(64%) and 27(36%) respectively as displayed in Table 2.

Out of the students ever tried multiple / combined/ substances 8 (29.63%) use khat, cigarette and alcohol (triple); 4 (14.8%) use khat-cigarette; Khat - alcohol 9 (33.33%), alcohol- cigarette 4(14.8%) and only two (7.4%) students use shisha in combination with khat, cigarette and alcohol. However none of students reported the use of cannabis, heroin or others in single or combination (Table 3). Of 27 students who ever tried multiple/Combination substances 18(66.67%) admitted that the first substance they took was alcohol; 7(25.92%) reported khat, and only 2(7.4%) reported cigarette as shown in Table 3.

Table 1 Socio-demographic features of preparatory students (N=279)

| Variable | | Number | Percent |
|-------------------|----------------|-----------|---------|
| Age group | 15-19 | 207 | 74.19 |
| | 20-24 | 72 | 25.81 |
| Sex | Male | 203 | 72.7 |
| | Female | 76 | 27.22 |
| Religion | Orthodox | 224 | 80.3 |
| | Muslim | 40 | 14.3 |
| | Others | 15 | 5.4 |
| Ethnicity | Amhara | 279 (All) | 100 |
| Marital status | Unmarried | 266 | 95.34 |
| | Divorced | 11 | 3.94 |
| | Married | 2 | 0.72 |
| Family occupation | Gov't employee | 68 | 24.3 |
| | Farmers | 134 | 48 |
| | Merchant | 60 | 21.5 |
| | Laborers | 5 | 1.7 |
| | Others | 13 | 4.5 |

The average age of students ever-tried substances were 18yrs (15 – 22 yrs range). Higher user rate were reported in males 63 (31%, n=203) than in females 12 (15.78%, n=76) and in those students who had family member 46 (61.33%, n=75) and peer 54 (72%, n=75) who used substances, than those who did not have 29 (38.67%, n=75) and 21 (28%, n=75), respectively.

Sixty-two (82.67%, n=75) of students, who ever-tried substance, were orthodox and 11(14.7%, n=75) were Muslims. Except single student who ever tried multiple / combined substances (including khat), all Muslim students ever tried khat alone which may indicates association between khat and religion (P<0.001). Students whose family/ guardians had been merchants, 29 (38.67%, n=75) were more substances users than whose families have been farmers and government workers (employees), 22 (29.33%, n=75) and 19 (25.33%, n=75), respectively (Table 4).

Table 2 Distribution of ever tried substance by preparatory students (N=279)

| Substances | Substances ever tried by students (N=279) | |
|------------------------------------|---|-------------|
| | Number | (%) Percent |
| Alcohol | 30 | 10.75 |
| Khat | 15 | 5.37 |
| Cigarette | 3 | 1.08 |
| Khat – cigarette -Alcohol | 8 | 2.87 |
| Khat- Cigarette | 4 | 1.43 |
| Khat- Alcohol | 9 | 3.22 |
| Alcohol – Cigarette | 4 | 1.43 |
| Khat-Alcohol-Cigarette and others* | 2 | 0.72 |
| Total | 75 | 26.88 |

NB: N= 279 – Indicates total number of students/ respondents; *- Shisha

Most of the students have started using substances in high school (grade 9th and 10th) 46(61.33%), followed in preparatory (11th and 12th) 12(16%) than in first and second cycle (1-8th grades) as shown in Table 5. Thirty (40%), 28(37.33%), 15 (20%) and 2 (2.67%) of students started using substances due to family/relative reason, Peer pressure, relaxation/entertainment and other reasons respectively as displayed in Table 6.

Table 3 Distribution of multiple / combined substances and substance used for the first time in the respective combination.

| Type of combination | No | % | Alcohol | | Khat | | Cigarette | |
|----------------------------------|----|-------|---------|-------|------|-------|-----------|------|
| | | | No | % | No | % | No | % |
| Khat, alcohol, Cigarette | 8 | 29.63 | 6 | 22.22 | 2 | 7.41 | - | - |
| Khat- cigarette | 4 | 14.82 | - | - | 2 | 7.41 | 2 | 7.41 |
| Khat-alcohol | 9 | 33.33 | 6 | 22.22 | 3 | 11.1 | - | - |
| Alcohol-cigarette | 4 | 14.82 | 4 | 14.82 | - | - | - | - |
| Khat, alcohol, Cigarette & Other | 2 | 7.41 | 2 | 7.14 | - | - | - | - |
| Total | 27 | 100 | 18 | 66.67 | 7 | 25.92 | 2 | 7.41 |

N=27 indicates total number of students that ever tried multiple / combined substances;

*-Shisha; No- Number

Of total students ever tried substances only few students tried to stop abusing substances but not yet stop while others have no idea to cut down because some did not face substance abuse related problem and others unable to stop due to dependency.

Table 4 Distribution of students’ family/ guardian occupation ever tried substances (N= 75).

| Substance Users Family Occupation | Number | Percent |
|--|---------------|----------------|
| Government | 19 | 25.33 |
| Farmers | 22 | 29.33 |
| Merchant | 29 | 38.67 |
| Others* | 4 | 5.33 |

N-75 indicates total number of students ever tried substances; *Laborer

Of khat chewers 5(13.15%) use once a day while 6(15.78), 11 (28.95%) and 19 (23.68%) chewing Khat once, twice and three times per week, respectively. Cigarette smokers smoke per day though differ by the amount of cigarette they used. Out of alcohol drinkers 17(32.07%), 21 (39.62%) and 3 (5.16%) of students drink once , twice and three times per week and 5(9.43) per months while others drink per day and twice , three in the month or occasionally as shown in Table 7.

Table 5 Period initiations forever taking substances among the preparatory students (N=75)

| Period of institution by school level | Number | Percent |
|--|---------------|----------------|
| Fist cycle (1-4 th) grade | 8 | 10.67 |
| Second cycle (5-8 th) grade | 9 | 12 |
| High school (9-10 th) | 46 | 61.33 |
| Preparatory school(11-12 th) | 12 | 16 |

Out of the total students ever tried substances 19 (25.33%) students faced different problems of which 6 (8%) faced economic crises, 7(9.33%) social problems and 5 (6.67%) health problems (physical dislocation). Fifteen (20%, n=75) of students ever tried substances support substance abuse , 41 (54.67%) support partially and 18(24%) never support because of their knowledge about the negative impact of substance use even if they abuse for different reasons. Out of total students who did not ever tried substances 83(40.68%, n=204) were pointed their reason of not using substance because they knew about negative impact of these substances.

Discussion

The most commonly used substances were alcohol and khat with cigarette in less prevalence rate. Unlike this findings tobacco was the predominantly used substance in American high schools (9). But it was alcohol and khat which predominantly used like students in Addis Ababa high schools,¹ which is inline with the present study. This may be due to local and modern

preparation of alcohol and widely cultivation of khat in many part of Ethiopia. Furthermore, nowadays chewing khat and drinking alcohol is socially acceptable.

Table 6 Reasons for ever- taking substance among the preparatory students

| Reasons | Number | Percent |
|--------------------------|--------|---------|
| Family /relatives | 30 | 40 |
| Peer pressure | 28 | 37.33 |
| Relaxation/entertainment | 15 | 20 |
| Others * | 2 | 2.67 |

*Performance achievement

Cannabis use was not reported in the present study, unlike other parts in Ethiopia, perhaps due to absence of cultivation and inaccessibility in this area. No hard substances like heroin and cocaine were reported to be used by students though in other African countries the abuse of substances is escalating rapidly from cannabis and khat abuse to more dangerous drug (1).

A large proportion of students ever tried substances were due to family/relatives reason [40%] than those due to relaxation and entertainment [20%]. This could be due to the students' lifestyle that is under the care of the family; and families influence them.

Substances were used mainly by the youngest age group 15-22years which is common and similar to any other parts of Ethiopia, like Jimma high school students (1). Students whose family/guardian's occupation was merchants had been greater substances users [38.67%] than others. This may be due to better financial access for purchasing the substances.

Table 7 Substance use frequency among preparatory students

| Frequency | | Substance use | | | |
|--------------|--------|------------------|---------|----------------|---------|
| | | Alcohol (No= 53) | | Khat (No = 38) | |
| | | No | Percent | No | Percent |
| Once a day | | - | - | 5 | 13.15 |
| Per week | Once | 17 | 32.07 | 6 | 15.78 |
| | Twice | 21 | 39.62 | 11 | 28.95 |
| | Thrice | 3 | 5.66 | 9 | 23.68 |
| Once a month | | 5 | 9.43 | - | - |

N= 53 and N= 38 indicates total number of students using alcohol and khat (in single or combination), respectively.

There is no strong association between a particular substance use and Orthodox religion unlike that of Attaye Senior Secondary and Technique school that had association with alcohol use. Of total students who used khat alone, more than half [66%] were Muslim and only one Muslim

student used alcohol in combination with other. Hence, like that of Attaye study (5), it seems that there was association between Khat chewing and religion, Muslim in the present study ($P < 0.001$). There was no strong association between cigarette smoking and religion.

Few studies done among high school students and community in our country regarding khat, alcohol and cigarette had indicated that the use of these substances was high. The negative impact of substance abuse from previous study was health problem, absenteeism from school, criminal acts and diversion. To control substance abuse, National Drug Control Policies are formulated in developed countries, in Ethiopia rather than being a party of three international drug control conventions; no well established drug control strategy has yet been formulated. Thus it is the time for policy makers to revise and formulate rules and regulations regarding substance control like Khat. Khat production is now crucial to the Ethiopian economy ranking third next to oil seeds and coffee (10, 11). On the other hand, khat chewing has negative consequences and many time in some areas khat chewing occurs together with the use of other substances such as alcohol, cigarette and if the policy is not formulated that regulates the abuse of substance-Khat, the use of hard drugs among youngster is inevitable in the near future. Thus the policy makers must consider the economic benefits and negative impact of khat in policy formulations.

Conclusions

Substance abuse among preparatory students attending in study area was high. Most of the students ever tried substance [alcohol and Khat] because their family members abuse substance. Except few, all students have intention to continue their practice for the social and enjoyment reason while others are at level they are unable to stop using. The students using these substances have no knowledge of negative consequences [24%]. Government and none government organizations are expected to provide health education on substances abuse to bring behavioral change. Families, religious leaders and public in general need to make their maximum effort in the control of substance abuse.

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