

Original article

"Drug" use among high school students in Addis Ababa and Butajira

Mesfin Kassaye¹, Hassen Taha Sherief², Ghimja Fissehay³, Teshome Teklu¹

¹From the Department of Community Health, Faculty of Medicine, P.O. Box 9086 Addis Ababa University, Addis Ababa; ²Department of Physiology, Faculty of Medicine, AAU, Addis Ababa; ³Department of Microbiology, Faculty of Medicine, AAU, Addis Ababa, Ethiopia

Abstract: The problem of "drug" use is an emerging and serious problem in Africa. However, studies on the use of "drug" are rare. The proposed research aimed at determining the magnitude of drug use among high school students and identify factors associated with drug use among high school students. The study was conducted in Addis Ababa, the capital city of Ethiopia, and Butajira a rural town located 150 kms south of Addis Ababa, in January 1998 using administered questionnaires. A total of 241 students, from randomly selected two government and one private secondary schools in Addis Ababa and 187 students from a government secondary school Butajira, were enrolled in the study. Alcohol and khat were the most commonly used drugs in all schools. On the other hand, cigarette and cannabis were consumed more in the private school (48% and 31%, respectively), than in government schools (5% and 1% in Addis Ababa and 6% and 3% in Butajira, respectively) ($\chi^2 = 52$, $p < 0.001$; $\chi^2 = 39$, $p < 0.001$). Most of the students in the private school took the drugs for relaxation and entertainment while students in government schools took them mainly for social reasons. The current status of drug use and its implication are discussed. [*Ethiop. J. Health Dev.* 1999;13(2):101-106]

Introduction

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 (1,2). WHO report (3) stated that illicit drug use in Africa is related with cannabis and other natural psychoactive plants. In the Americas cocaine, cannabis, heroine,

and multiple drugs (alcohol and psychotropic drugs) are commonly utilized. In Asia, (especially Far East and Middle East) and Europe the most commonly used illicit drugs are cocaine, heroin, cannabis, amphetamines, and multiple drugs such as psychotropic drugs. The use of these drugs is rising rapidly reaching epidemic proportions in most countries.

The extent of illicit drug use is mainly seen among the youth. A publication of UN's Division of Narcotic Drugs (1) reported that "Never before have there been so many young people, even children, flirting with drugs and their associated hazards. The wide spreading drug use is depriving today's youngster's (our children) of the right to enter the coming century with dignity, good health, and the chance to make substantial contribution to the future of their countries and the world."

The history of drug abuse in Africa is relatively short. However, the abuse of drugs in Africa is escalating rapidly from cannabis and khat abuse to more dangerous drugs; and from limited groups of drug users to a wide range of users (4).

National drug studies in Nigeria showed that cannabis is predominantly used in schools and universities followed by cocaine and tobacco (4,5). In Zambia, 20 percent 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 (6,7).

Studies on substance abuse in selected urban areas in Ethiopia showed that 82 percent of street children, commercial sex workers, and street vendors as having used addictive drugs or substances. They also reported that khat, alcohol, hashish, tobacco, and solvents were the most abused substances (11). Heroin, cocaine, and other narcotic drugs were not considered to be important.

The Government of Ethiopia considers "drug" abuse as a serious and emerging problem. However, little attention has been given to the understanding of the factors related to drug abuse. Yet this understanding is critical to the successful implementation of the drug control strategies.

The recent sharp increase in khat and cannabis production and consumption may not only affect the health of individuals but also has serious socio-economic consequences. The potential adverse effect includes diversion of income for the purchase of khat and cannabis, resulting in neglect of the needs of the family. It also leads to family discord and divorce, absenteeism from work and criminal acts.

Although the literature on khat is fairly extensive, and several authors strongly stated the potential adverse effects of khat, there is no well designed study that examined other illicit drug problems and factors related with their use that could serve as a tool to guide policy makers. The present study was, thus undertaken with the aim of filling this gap in knowledge on the magnitude and factors related with "drug" abuse.

Methods

Study Area: The study was conducted in Addis Ababa, the capital city of Ethiopia, and Butajira, a rural town located 130 kms south of Addis. The Butajira study site was selected because it is a place where khat is produced. Addis Ababa was selected because, as a cosmopolitan city, it might be an important transiting route for international "drug trafficking".

Study design: School-based cross-sectional survey was used to collect data using self administered questionnaire. The schools were randomly selected. They include one urban government high school and one private high school in Addis Ababa and, one rural governmental high school from Butajira. A total of 428 students from grades 9-12 (196, 45), and students from government and private schools in Addis Ababa and Butajira government school respectively, were selected. The students were selected using a simple random sampling.

The study was conducted in January 1998 after responsible individuals and institutions were contacted to get permission to conduct the study. Meetings were held with school officials to familiarize them with the purpose of the study and to get their assistance. Pretesting of the data collection technique was made in Addis Ababa and nearby area high schools to evaluate the data collection tools to be used in the study. The data collection instruments were modified based on the findings of the pretest. For ethical clearance the purpose of the study was explained and informed consent was obtained from the study participants. Information provided by students and the identity of the students was kept confidential.

Data analysis and presentation: Frequencies tables are used for data presentation and χ^2 tests are used for comparing different groups.

Results

Of the total 428 students, aggregated across all schools in the study, 241 (56%) were from the Addis Ababa secondary schools and 187 (46%) were from Butajira secondary school. Nearly 80% were in the age range of 15-19 and about two thirds of them were males. Two hundred fifty nine (60.5%) were Orthodox Christians and 163 (38%) were Amhara by ethnicity. Oromo and Tigray students account 12.1% and 8.4%, respectively. Moslems account for 21% of the students. The socio- demographic characteristics of the students aggregated across all schools are depicted in Table 1.

Alcohol and Khat were the two "drugs" commonly ever tried by high school students both in government and private schools. The percentages of ever use of alcohol were 17.9%, 57.8%, and 18.2% in urban governmental high school, private high school, and Butajira rural governmental high school, respectively. Similarly khat use is 9.2%, 35.6% and 31%, respectively. Only a very small percentage (1.7%- and 2.7% students of urban and rural governmental high schools, respectively) ever used cannabis and, similarly, cigarette was ever used by 5.1% and 6.4%, respectively. In contrast to results obtained from government secondary school students, (31.1%) a significant proportion of privately owned secondary school students (48.9%) have admitted ever using cannabis and cigarette. The frequency distribution of ever used "drugs" by students from the different high schools is displayed in Table 2.

"Drugs" abuse was significantly more among students of the private high school compared to that of government school students. However, none of the students reported the use of hard drugs, such as cocaine or heroine, in any of the schools. Out of the 36 respondents of urban governmental high school students who ever tried "drug", 23(64%) admitted that the first "drug" they took was alcohol; 10

(27.7%) reported khat, and three (8.3%) cigarette. Most of the students (67.5%) started using "drugs" between the ages of 12 to 16 years. Sixteen (72.6%) of the 26 students in Private High School who tried drug said that alcohol was the first "drug" that they tasted while eight (30.7%) tasted cigarette, and two (7.7%) reported khat, and the ages at which the students started using "drugs" ranged between six and 22 years.

Fifty eight (75.5%) of the 77 students from Rural Governmental High School reported to have tasted khat; first 15(19.5%) took alcohol first while remaining four (5.2%) took cigarette for the first time. The age at which Butajira students started using "drug" ranged between eight and 19 years. The distribution of ever tried "drugs" by first "drug" used and age of starting "drugs" is summarized in Table 4.

Table 4 indicated that alcohol is the "first drug" ever tried by students in Addis Ababa compared to Butajira where khat is the initial "drug" predominantly used ($X^2=33.59$; $p<.001$ and $x^2 =45.47$; $P<.001$ for alcohol and khat, respectively).

A large proportion of students, 17(65%) in the private school used "drugs" for relaxation and entertainment while, only four (11%) and

12(15.6%) of students of Urban Governmental and Rural governmental High Schools, respectively, use "drugs" for relaxation and entertainment. Social reasons were the main motives for commencement of use of "drugs" in public schools(30.5% and 26%) for Urban and Rural Governmental High Schools, respectively) in contrast to private school where social reason accounted for only 13%. The reasons for taking "drug" as reported by students is summarized in Table 5.

Discussion

The overall rate of "ever used drug" for, at least, one "drug" is 32.5%, with about 41% in rural governmental, 57.8% in Private, and 18.4% in Urban governmental High Schools. The most commonly used "drugs" are alcohol, khat and cigarette in all schools with cannabis and cigarette being more prominent in the private school than in the public schools. Alcohol was the first drug to be used by students in Addis while khat the first drug that was used in Butajira. Unlike our findings, national drug studies in Nigeria showed that cannabis is predominantly used in schools and universities followed by cocaine and tobacco (4,5). But in this study khat is predominantly used by students in all schools perhaps because khat is widely cultivated in many party of Ethiopia and, furthermore, in some places, it is culturally and socially acceptable to chew khat.

The use of cannabis and cigarette seems more in Addis Ababa and in the private school. Hard drugs like heroine, cocaine, and amphetamine are not reported to be used by students though these drugs are commonly used in other parts of the continent (3).

However, the use of "drugs" in Africa is shifting rapidly from cannabis and khat to the more dangerous "drugs" and from limited groups of "drug" users to a wide range of users (4) and there is a possibility that such shift may also be seen in Ethiopia.

The few studies done in Ethiopia regarding the use of khat, alcohol, and cigarette had indicated that the use of these "drugs" is high and is most commonly found among youngsters, street children, commercial sex workers, and students(8). The adverse effect is diversion of income for the purchase of drugs at the expense of the needs of the family, leading to family discord and divorce, absenteeism from work, and criminal acts.

A large proportion of students, (65%) in the private school used "drugs" for relaxation and entertainment in contrast to students of Urban governmental and Rural governmental Schools. On the other hand, social reasons were the main causes for the commencement of use of "drugs" in public schools (30.5% and 26% for urban and rural areas, respectively) as compared to the private school. This could be due to better financial access for those who are in the private school.

Drug use is mainly by the youngest age group (15-19 years) and this is similar to findings of Zein (9) where one third of Gondar college students of ages 16-23 years were khat users. Similarly, Adugna et al (10) noted that, among Agaro secondary school students of southwestern Ethiopia, the prevalence of khat use was 64.9% in the age group between 15 to 22 years. The frequent use of "drugs" by youngsters documented in this study and elsewhere could be due to the curiosity of the youngsters to explore new "experiences" and their vulnerability to them.

It is obvious that drug use has negative consequences on the economic development of a country as the health, time and money of the most productive section of human resource (youngsters) are affected by the habit of indulging in drugs. It is high time for policy makers to revise the rules and regulations regarding the control of the use of illicit drugs. Khat, which Ethiopia does consider to be an illicit drug, is a cash crop and an important source of foreign exchange next to coffee and skin and hides (11). Besides, in some areas like Harrar, production and chewing of khat is deeply rooted culturally that controlling khat chewing and production will create a socio-economic imbalance. On the other hand, khat chewing in some areas occurs together with the use of other substances such as alcohol, cigarette, cannabis, etc. Since khat, as a cash crop, involves farmers, traders, bankers, and society in general, any policy to control khat should take the resulting economic disturbance into consideration. Therefore, it is the view of the authors that if a policy is not formulated that regulates the use of illicit drugs, including khat, the use of hard drugs among youngster is inevitable in the near future. This study has tried to highlight the type, extent, and age group at which illicit drug is being used in Ethiopia. The authors believe that the study will stimulate more research in this area as well as help policy makers in making decisions.

Acknowledgments

We would like to acknowledge the UNDP for sponsoring this study. Our special thanks goes also to school teachers and directors of the various schools who were very kind enough to assist in recruiting students for the study. Finally we are very much grateful to the students who participated in the study.

References

1. United Nations and Drug Abuse control. The extent of Drug abuse: Regional Evaluation New York: United Nation Publication, 1987.
2. United Nations and Drug Abuse Control. The Extent of Drug abuse Global evaluation. New York: United Nations Publication, 1987.
3. WHO. Drugs Know No Bouldery. United Nations Chronicle Quarterly. 1990;Vol xxvii, No. 2 PP. 48-61.
4. Asuni, T. and Pela, A.O Drug in Africa Bulletin on Narcotics (United Nations Publications), 1986; 55-64.
5. Nevadomsky J. Patterns of self-reported drug use among secondary school students in Bendel State, Nigeria. Bulletin on Narcotics (United Nations Publication), 1981;35:21-32.

6. Soueif, M.I. and others Cannabis ideology: A study of opinions and beliefs centering around cannabis consumption Bulletin on Narcotics (United Nations Publication), 1973;25:33-42.
7. Soueif, M.I. and Others Extended Patterns of drug abuse and its associated factors in Egypt Bulletin on Narcotics (United Nations Publications), 1986;38:356-442.
8. Seyoum Gebresellasié and Ayalew Gebre. A Report on the rapid assessment of the situation of drug and substance abuse in selected urban areas in Ethiopia. Prepared for MOH, and UNDCP (1995).
9. Zein AZ. Poly drug Abuse Among College Students, a symposium report, In: International Symposium on khat Chemical and Ethnopharmacological Aspects of Khat, Proceedings, Addis Ababa Ethiopia, 1984:83-88.
10. Adugna F. Khat chewing among Agaro Secondary School Students Agaro, Southwestern Ethiopia, Ethiopa med J. 1995;32.
11. National Bank of Ethiopia. Bulletin of the National Bank of Ethiopia.1994.

Table 1. Socio- demographic features 428 high school students form Addis Ababa and Butajira secondary School. January 1998 (N=428).

| Characteristics | Number | Percent |
|------------------|--------|---------|
| <u>Age Group</u> | 55 | 13 |
| <u>10-14</u> | 339 | 79.2 |
| <u>15-19</u> | 29 | 6.8 |
| <u>20-24</u> | 5 | 1 |
| <u>> 24</u> | | |
| <u>Sex</u> | 277 | 65 |
| <u>Male</u> | 151 | 35 |
| <u>Female</u> | | |

| | | | |
|---------------------------------------|----|-----|------|
| <u>Religion</u> | | 259 | 60.5 |
| <u>Orthodox</u> | | 89 | 20.8 |
| <u>Muslim</u> | | 80 | 18.7 |
| <u>Others</u> | | | |
| <u>Ethnicity</u> | | 163 | 38.1 |
| <u>Amhara</u> | | 52 | 12.1 |
| <u>Oromo</u> | | 36 | 8.4 |
| <u>Tigray</u> | | 177 | 41.4 |
| <u>Others</u> | | | |
| <u>Marital Status</u> | | 394 | 92 |
| <u>Unmarried</u> | | 34 | 8 |
| <u>Married</u> | | | |
| <u>Father's/Guardian's Occupation</u> | | | 36 |
| <u>Government employee</u> | | 153 | 26 |
| | | 110 | 17 |
| | | 74 | |
| <u>Merchant</u> | 91 | 21 | |
| <u>Farmer</u> | | | |
| <u>Others</u> | | | |

Table 2. Distribution of secondary School students ever trying "Drug" in bole, Sanford and Butajira, 1998

| "Drug" | Number of students | | Butajira (%) N=187 |
|-----------|--------------------|--------------------|-----------------------|
| | Bole(%) N=196 | Sanford(%) N=45 | |
| Alcohol | 35(17.9) | 26(57.8) | 34(18) |
| Khat | 18(9.2) | 16(35.6) | 58(31) |
| Cigarette | 10(5.1) | 22(48.9) | 12(6.4) |

| | | | |
|----------|--------|----------|--------|
| Cannabis | 2(1.0) | 14(31.1) | 5(2.7) |
| Heroin | | | |
| Cocaine | | | |
| Other | 10(5) | 6(13.3) | 5(2.7) |

NB. One student may have used more than one "Drug. Hence, percentage may not add up to 100 & \$percentage is calculated for each "drug"

Table 3. Comparison of ever use of "drugs" by different schools, January 1998.

| School and type of "drugs" | Ever use of "drugs" | | | P Value |
|----------------------------|---------------------|-----|-------|---------|
| | Yes | No | Total | |
| <u>Khat</u> | | 29 | 45 | P<.001 |
| | * 16 | | | |
| <u>Sanford</u> | | 178 | 196 | P=.55 |
| | 18 | 129 | 187 | |
| | 58 | | | |
| <u>Bole</u> | | | | |
| <u>Butajira</u> | | | | |
| <u>Alcohol</u> | | | | |
| <u>Sanford</u> | * 26 | 19 | 45 | P<.001 |
| <u>Bole</u> | 35 | 161 | 196 | P<.001 |
| <u>Butajira</u> | 34 | 153 | 187 | |
| <u>Cigarette</u> | * 22 | 23 | 45 | P<.001 |
| <u>Sanford</u> | 10 | 186 | 196 | P<.001 |
| <u>Bole</u> | 12 | 175 | 187 | |
| <u>Butajira</u> | | | | |

| | | | | |
|-----------------|------|-----|-----|--------|
| | * 14 | 31 | 45 | P<.001 |
| <u>Cannabis</u> | | | | |
| | 2 | 194 | 196 | P<.001 |
| <u>Sanford</u> | | | | |
| | 5 | 182 | 187 | |
| <u>Bole</u> | | | | |
| <u>Butajira</u> | | | | |

Table 4. Distribution of ever tried "drugs" by first "drug" used and age of initiation of "drug" use, in the different schools 1998.

| "Durgs" used for the first time | Number (%) | Age range of initiation |
|---------------------------------|------------|-------------------------|
| Bole (N=36) | 23(64%) | 12-16 Years |
| Alcohol | 10(27.7%) | |
| Khat | 3(8.3%) | |
| Cigarette | | |
| Sanford (N=26) | 16(72.4%) | 6-22 Years |
| | 2(7.7%) | |
| Alcohol | 8(30.7%) | |
| Khat | | |
| Cigarette | | |
| Butajira (N=77) | 15(19.5%) | 8-19 Years |
| Alcohol | 58(75.3%) | |
| Khat | 4(5.2%) | |
| Cigarette | | |

Table 5. Reasons for taking "Drug" among the secondary school students of Bole, Butajira and Sanford English Community schools ever tried "drugs", January 1998.

| Reasons and name of school | Number | percent |
|----------------------------|--------|---------|
|----------------------------|--------|---------|

| | | |
|---|----|------|
| Bole high School (N=36) | 10 | 27.8 |
| Relaxation and entertainment | 11 | 30.5 |
| For social reasons | 4 | 11.1 |
| No reason | 11 | 30.5 |
| Others | | |
| Sanford English Community School(N=26) | 17 | 65.3 |
| Relaxation & entertainment | 3 | 11.5 |
| | 5 | 19.2 |
| Social Reasons | 3 | 11.5 |
| No reason | | |
| Other | | |
| Butajira high school (N=77) | 12 | 15.6 |
| | 12 | 15.6 |
| Relaxation & entertainment | 14 | 18.2 |
| Friends/Relatives | 20 | 26 |
| No reason | 19 | 24.6 |
| For social reasons | | |
| Others | | |

N.B Percentages are calculated for each high school and in some schools they do not add up to 100 because of multiple responses.