

## DRUG ABUSE IN KISUMU TOWN WESTERN KENYA

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## ABSTRACT

This was a cross sectional study designed to determine the factors associated with drug abuse among secondary school students in nine schools in Kisumu town, western Kenya. The objective of this study was to determine the effect of age, gender and peer influence on drug abuse and to establish the reasons why students abuse drugs. Nine schools were randomly selected for the study. A total of 458 students (243 males and 215 females) were interviewed using a closed ended questionnaire. The data were then categorized into non-abusers and abusers and the degree of association between the variables was tested using Chi-square test. A total of 458 students (243 males and 215 females), were interviewed using a close-ended questionnaire. The results showed that 265 (57.9%) of the respondents had consumed alcohol at least once in their lives, 159 (34.7%) had abused tobacco, 84 (18.3%) had abused cannabis, 106 (23.1%) had abused *khat* and 24 (5.2%) had used inhalants and/or cocaine. The age group most at risk was 16-18 years, the age at which most students are in secondary school. The reasons given for the abuse of the drugs were: experimentation 92 (38.2%), enjoyment of the feeling they experience 114 (47.3%), influence from friends 21 (8.7%), influence from relatives 5 (2.1%) and for treating stomach ailments 7 (2.9%). More boys were found to be abusing drugs (36.9%, n = 169) compared to girls (27.3%,  $p = 0.007$ ). Also, drug abuse was found to be higher in students living in low socio-economic class areas of the town (30%, n = 122) compared to high-class areas (21.6%, n = 94,  $p = 0.004$ ) and peer influence had no effect on drug abuse ( $p = 0.249$ ). From this study it was concluded that drug abuse was widespread in secondary schools in Kisumu and although it affected both sexes boys were more involved in the practice than girls. The study therefore recommends that early intervention should target school attendees at early age with the aim of preventing drug abuse in secondary schools in Kisumu town, western Kenya.

**Key words:** Drug Abuse, Secondary schools, Kisumu

## INTRODUCTION

A drug has been defined as any substance that when absorbed into a living organism may modify one or more of its physiological functions [1]. The term is generally used in reference to a substance taken for a therapeutic purpose and as well as abused substances. Drug abuse has also been defined as self-administration of drugs for non-medical reasons, in quantities and frequencies which may impart inability to function effectively and which may result in physical, social and/or emotional harm [2]. Another author has defined it as the unspecified use of a drug other than for legitimate purposes [3]. Using this latter definition, substances that have been abused in Kenya would include antibiotics, anti-diarrheals, laxatives and pain-relieving drugs.

In Kenya, studies show that more than a fifth (22.7%) of primary school children take alcohol, a figure that rises to more than three-quarters (68%) for university students. A large number of students across all age groups have been exposed to alcohol, tobacco, *miraa* (khat), glue sniffing, bhang (marijuana) and even hard drugs such as heroin and cocaine. According to a study by Siringi (2001) on drug abuse, 22% of secondary school students were on drugs and males had a higher exposure to *miraa* and inhalants [4]. In addition the study also found out that the prevalence of drug abuse increased from primary to tertiary institutions. Alcohol was the most frequently abused drug followed by *miraa*, tobacco and bhang. The students staying with friends were most at risk followed by those staying with either a sister or a brother. Students staying in towns were also reported to have a twofold risk of having tasted alcohol, tobacco, *miraa*, bhang and inhalants (glue) compared to those in rural areas. This survey demonstrated that the youth in the urban areas, due to their lifestyles, are more predisposed to drugs compared to those in rural areas.

Twenty percent of youths in Kenya aged between 14 and 18 years smoke cigarettes and another 9% smoke bhang (*Cannabis sativa*) while some 23% drink commercial beer and spirits. This is the age of most youths in Kenyan secondary schools that have in the recent past been hit by a wave of strikes that may have been linked to drug abuse. Empirical evidence show that 92% of youths aged between 16 and 23 years have experimented with drugs as they grew up with about 90% of the respondents taking beer, spirits, cigarettes, local brews and bhang [5]. About 400,000 students in secondary schools in Kenya were addicted to drugs and out of this number, 16,000 are girls and the rest are boys. The frequency, as well as the type of substance abused, varies from province to province. When it came to alcohol, the prevalence among students is highest in western Kenya (43.3%), followed by Nairobi (40.9%), Nyanza (26.8%), Central (26.3%), Rift valley (21.9%), Coast, Eastern and North Eastern at 21.3%, 17.2% and 1.6% respectively [4]. Findings of a study undertaken by the Child Welfare Association reveal that one in every 15 Kenyan students was abusing bhang or hashish [6]. Abuse of drugs is, therefore, a major public health problem in our secondary schools. It was therefore important to undertake this study in order to establish the extent of this problem so that preventive public health measures can be undertaken.

Kenya, like many other developing countries, has limited resources to cover the basic needs of its people. Abuse of the drugs among the youth not only drains the economy because controls of supply and demand reduction are expensive undertakings but also deals a blow to the country as its youth become less productive. The overall picture has shown a steady upward trend in drug peddling as attested by seizure statistics.

Kenyan youth face the greatest risk, being targets for recruitment into the abuse of drugs by drug barons. It is increasingly clear that nearly 92% of the youth experiment with drugs during the growing up process. Drug abuse is, therefore, an issue that not only involves the secondary school students but is also a National issue. Several strikes that have occurred in schools in the past have usually been attributed to drugs without any concrete evidence. There is also paucity of sufficient and readily available reliable body of prevalence data, identified as one of the critical issues by NACADA. This study was, therefore, conducted to improve on the data base of drug abuse by generating objective information on the extent and the reasons for drug abuse in order to formulate effective public health policies on prevention.

Most studies on drug abuse have fell short of identifying the root cause of the problem. Results based on the responses to questionnaires completed by adolescents and young adults in the United States of America about their use of cannabis showed that it was used by 19-20% of the students in the study. Nevertheless, the differences in age and gender, the cultural variations, the types of schools attended and the different structures of the self-administered questionnaires had made the results of those studies difficult to compare [1].

According to self-reported surveys of adolescent students in Nova Scotia in Canada, carried out in 1991 and 1996, over one fifth (21.9%) of the students reported to have used alcohol, tobacco and cannabis [7]. The 1995 European Schools Project on Alcohol and other Drugs revealed that, 37% of 10<sup>th</sup> Grade students in the 30 participating European countries had smoked a cigarette in the past 30 days, 61% had consumed alcohol, 17% had consumed marijuana and 6% had used some illicit drugs other than marijuana [8]. All the above quoted studies show that the issue of drug abuse is not only a problem in Kenya but is also a global issue and thus the needs to involve all countries in drug abuse control efforts.

Fatoye and Marakinyo studied drug abuse amongst 567 secondary school students in rural and urban communities in south western Nigeria [9]. They found that the most commonly abused drugs were salicylate analgesics (48.7%), stimulants (20.9%), antibiotics (16.6%) alcohol (13.4%), hypnotic sedatives (8.9%) and tobacco (3.0%). He also was found that the current and lifetime use of alcohol and tobacco was significantly more common among the males, and among those in the rural schools. For the majority of the students, initiation into drug use started at a very early age (under 14 years).

Two studies carried out among Zambian students found that while up to 10% of the female students experimented with cannabis, only male students tended to become regular users [10]. In this study 58% of the males and 57% of the females had at sometime taken alcohol, 32% of the males and 10% of the females had at sometimes taken cannabis, and 24% of the males and 26% of the females had at sometimes in their lives taken other drugs, that included petrol sniffing, chlordiazepoxide and other minor tranquilizers, amphetamines and methaqualone [11]. Africa is therefore not spared from the issue of drug abuse in schools.

In Uganda, a study noted that among the youth, 19% of the secondary school students and about 35% of the students in tertiary institutions including the medical school smoked cigarettes [12]. This was attributed to a lot of tobacco products being advertised in relation to style/fashion; and due to peer influence. The mean initiation age for smoking was 13.4 years with a range from 6 to 22 years in Jinja district [13]. In a cross-sectional study carried out among 2789 high school students in Kampala district, Uganda, in 2002 among 13-15 year olds it was found that 17.5% reported to have smoked tobacco, with 37.9% (n = 148) of them trying or starting smoking before the age of 10 [14].

A preliminary survey of drug abuse was conducted among secondary school students in Kenya and the results of the study confirmed that drug abuse was quite prevalent among secondary school students [15]. For instance, up to 10% of students drunk alcohol more than three times a week, 16% smoked cigarettes more than three times a week, and nearly 14% had smoked cannabis (bhang) and 16% admitted taking other drugs especially tranquilizers in order to *feel high*. The study revealed that the problem was more acute in urban schools compared to rural schools. A cross sectional study to determine the prevalence of smoking and to investigate factors that may influence smoking behavior in 5,311 secondary school students in Nairobi found that a total of 2246 (70.1%) were ever smokers out of which 38.6% were males and 17.9% females. In this study, experimentation with drugs started at 5 years of age, and regular smoking at 10 years. The majority of the students 72.2% started at between age 12 and 16 years [16].

The above quoted studies done in Kenya show that drug abuse is rampant in secondary schools but they leave several questions unanswered. For example they have not dealt with the reasons that make students making it difficult for public health personnel to organize control measures. It is also now known that drug abuse is rampant in schools as per media reports and studies carried out in Kenya and other different parts of the world. However, these reports have been largely unsubstantiated and in this study an attempt was made to find out some of these reasons.

## METHODOLOGY

The study was conducted in nine randomly chosen schools in Kisumu town, and assessed mainly alcohol, cigarettes, cannabis (commonly known as bhang), inhalants and *khat* (commonly known as *miraa*), the main drugs of abuse in

secondary schools in Kenya. The study group comprised the students present in their school on the day of the survey. The non-resident students schooling in Kisumu town and those absent from class on the day of the survey were excluded. The research design was through a cross-sectional survey. Data collection was through the use of structured closed ended questionnaires and analysed using the SPSS computer program.

The population of the students in Kisumu town was 56,319 from which a sample was taken for administering the questionnaire using Fischers method for calculating sample size. Using Guys method, 10% of the students were sampled giving a total of 500 students [10]. Out of these, 458 students completed the questionnaires giving a response rate of 91.6%. In each of the selected schools, 10% of the students were interviewed. For example, if the school had 500 pupils, only 50 were interviewed. For each class, a sampling frame was compiled by serializing the students from one to the last student. Ten percent of the total number of students per class was then chosen at random using the table of random numbers. The first number was drawn at random then the rest chosen consecutively from the table of random numbers. The female: male ratio in the mixed schools was 1:1. The data collected was coded and tabulated according to study variables. The variables were assigned nominal values and analysis done using the SPSS computer program. Cross tabulations were done among the different variables and with the help of the SPSS program each of these variables was subjected to chi-square test at the 0.05 level of significance to test for strength of association. A measure of central tendency particularly the mean was used to determine expected summary statistics of the variables like age. The data was presented in tables preceded by explanations.

Prior authority to conduct study was obtained from the Education Office and the head teachers of representative schools. Verbal consent was obtained from the students who participated in the study. Before the study commenced, each study participant received detailed information about the study and was assured of complete anonymity.

## RESULTS

### Socio-Demographic Characteristics of the Respondents

A total of 458 respondents completed the questionnaire, out of which 53% were males and 47% were females. The mean age of the students was 17 years, range 14-23 years. Forty two percent of the respondents resided in the upper socio-economic class areas of Kisumu town while 57.6% resided in low socio-economic class areas. Many of the students were aged between 16-18 years.

### Drugs Abused and reasons for abuse

The results shown in Table-1 reflect that alcohol and tobacco were the most commonly abused drugs (57.9% and 34.7% respectively). Other drugs abused by secondary school students included *khat* (*Caatha edulis*) (23.1%) inhalants (3.7%) and cannabis (18.3%). The proportion of students abusing cocaine (1.5%) was

insignificant ( $p > 0.05$ ).

As shown in Table-2 the commonest reason elicited from 47.3% of the students was that they abuse drugs to enjoy the feeling the substances give them, while 37.8% take drugs for experimentation. Other reasons cited included influence from friends, 8.7%; influence from relatives, 2.1%; treating stomach ailments, 2.9%; and for stress relief, 0.8%.

#### **Age of Onset and sex difference in Drug Abuse**

Majority of the students (49.6%) who were abusing drugs were aged between 16-18 years ( $p = 0.003$ ) as indicated in table-3. The table also shows that by the age of 15 years, 34 students (7.4%) were already abusing drugs and by the age of 19 years, the number of students abusing drugs was 33 (7.2%).

In table 4 the relationship between drug abuse and sex is shown. The results show that the proportion of male students abusing drugs 36.9% was more than that of females 27.3% but this difference was statistically insignificant ( $p = 0.007$ )

#### **The effect of place of Residence and family influence on Drug Abuse**

According to the findings shown in table-5 study students coming from low socio-economic class areas (slums) of Kisumu town were more involved with drug abuse 28.0% compared to those from high socio-economic class areas of the town 21.5% ( $p = 0.004$ , chi-square test).

Family influence has also been shown to have an influence on drug abuse for example in this study many of the students who abused drugs came from families where other family members abuse drugs ( $p < 0.001$ ). These included immediate family members like parents and siblings and other members of the extended family staying with them (see table-6).

## **DISCUSSION**

These findings indicate that there is an increase in the use of alcohol in secondary schools, compared to an earlier report by Siringi which reported a proportion of users of 23% [5]. Most of the students in this study who were abusing cannabis were also falling in the category of alcohol abusers. Thus to control cannabis abuse it is important to undertake the control of alcohol abuse at the same time.

Reasons for using drugs like enjoyment of the feelings elicited by the substances, experimentation, influence from friends and relatives, medicinal use and stress relief should be taken into consideration when planning health education programmes for secondary schools. Experimentation as a reason for drug abuse is very important because some studies have found that experimentation with mind-altering substances appears to be part of the adolescent "rites of initiation" [17].

The majority of the students who were abusing drugs were aged between 16-18 years. This is the age of most students in secondary schools. The proportion of students who abused drugs among the younger students (below 15 year) as found in this study

suggests that contact with drugs in Kenya occurs at an early age, despite the fact that it is prohibited by law to sell alcohol to students under the age of 18 years of age and thus control efforts may need to be extended to pre-secondary school students.

The higher proportion of male students abusing drugs suggests that the compulsive use of drugs is associated with the male gender and control programs should therefore target all students in general and males in particular. The gender differences in drug abuse are said to have their foundation in the very first stage of drug involvement and the opportunity to use drugs. If given the opportunity to use drugs, males and females are equally likely to use them [18]. One benefit of improved understanding of the link between opportunity and eventual abuse is that counselors or physicians may be able to learn about young patients' drug use by asking about their opportunities to use drugs. Young people may feel comfortable to answer a question about the opportunity to use drugs rather than a question about actual drug use, because the opportunity is less likely to be illegal or particularly sensitive. Understanding the sex differences in opportunities could make it possible to develop prevention programs that reduce the opportunities and therefore the higher rate of drug abuse among males.

The higher level of abuse in low-class areas than in high-class areas of Kisumu town suggests that although control measures should target all these areas of the town more efforts should be put in low-class areas which seems to have characteristics that encourage drug abuse.

The high prevalence of drug abuse in students from families where another member of the family was also abusing drugs correlates well with previous studies that found a similar correlation between parental use and abuse of drugs and drug abuse patterns among their children [19]. The home is said to be the primary source of alcohol and other drugs and it is here that children and the youth draw their views as to the appropriate use of drugs. Sons of alcoholic men have a 25% chance of becoming alcoholics themselves in part because of genetics and in part because of family acceptability [20].

## CONCLUSION AND RECOMMENDATION

This study concluded that high numbers of secondary school students in Kisumu town were exposed to drugs and the problem affected all age groups although the age group 16-18 was particularly vulnerable. Most students abused drugs for enjoyment and those from low-income areas were more at risk. Family members were found to be an important link in the initial development of the drug taking habit. These findings indicate the need for early intervention that targets pre-secondary and secondary school students. More effort should be made to develop drug abuse prevention strategies that target secondary school students as a high-risk group. Appropriate intervention, health education efforts, support and referral systems should be established in secondary schools to help curb this habit early. Control efforts should not only be confined to secondary schools but extend to their places of residence so that influences in the home environment and the surroundings that contribute to drug abuse can be identified and controlled.



The results of this study indicate the need for early intervention that targets pre-secondary and secondary school students. More effort should therefore be made to develop drug abuse prevention strategies that target secondary school students as a high-risk group. Appropriate intervention, health education efforts, support and referral systems should be established in secondary schools to help curb this habit early. The control efforts should not only be confined to secondary schools but should also extend to their places of residence so that influences in the home environment and the surroundings that contribute to drug abuse can be identified and controlled.

**Table 1: Types of drugs commonly abused.**

Drug abused	Proportion of students	
	Abusers	Non-abusers
Alcohol	265(57.9%)	193(42.1%)
Tobacco	84(18.3%)	374(81.7%)
Miraa (Khat)	106(23.1%)	352 (76.9%)
Inhalants	17(3.7%)	441(96.3%)

**Table 2: Reasons for drug abuse.**

Reasons for abusing drugs	Proportion of students (%)
Influence from friends	21 (8.7%)
Influence from relatives	5 (2.1%)
To experiment	92 (38.2%)
To enjoy the feeling they get	114(47.3%)
For treating stomach ailments	7 (2.9%)
To relieve stress	2 (0.8%)
Total	241 (100%)

**Table 3: Age of onset of drug abuse.**

Age range	Drug abusers	Non-abusers	Total
< 15 years	34 (7.4%)	32 (7.0%)	66 (14.4%)
16-18 years	227 (49.6%)	119 (26.0%)	346 (75.6%)
≥ 19 years	33 (7.2%)	13 (2.8%)	46 (10.0%)
<b>Total</b>	<b>294 (64.2%)</b>	<b>164 (35.8%)</b>	<b>458 (100%)</b>

**Table 4: Gender and drug abuse.**

Gender	Abusers	Non-abusers	Total
Females	125(27.3%)	90(19.6%)	<b>215(46.9%)</b>
Males	169(36.9%)	74(16.2%)	<b>243(53.1%)</b>
<b>Total</b>	<b>294(64.2%)</b>	<b>164(35.8%)</b>	<b>458(100%)</b>

**Table 5: Residence and drug abuse.**

Residence	Drug abuse		
	Yes	No	Total
High class areas	94(21.5%)	57(13.1%)	151(34.6%)
Low class areas	122(28.0%)	83(19.0%)	205(47.0%)
No response	64(14.7%)	16(3.7%)	80(18.4%)
<b>Total</b>	<b>280(64.2%)</b>	<b>156(35.8%)</b>	<b>436(100%)</b>

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