

East African Medical Journal Vol. 80 No. 11 November 2003

SUBSTANCE USE AMONG CHILDREN AND YOUNG PERSONS APPEARING IN THE NAIROBI JUVENILE COURT, KENYA

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**ABSTRACT**

**Objective:** To estimate the prevalence and pattern of substance use among children and young persons appearing in the Nairobi Juvenile Court, Kenya.

**Design:** A point prevalence survey.

**Setting:** The Nairobi Juvenile Court, Kenya.

**Subjects:** Ninety (sixty four males and twenty six females) children and young persons aged 8 to 18 years classified as criminal offenders, group I (60) and those for protection and discipline, group II (30), were selected.

**Method:** Socio-demographic and substance use questionnaires were administered to the subject. International classification of diseases, 10th Edition (ICD-10) diagnostic criteria were used.

**Results:** Crude rate for substance use in this study was found to be 39 out of the total sample of 90(43.3%), children and young persons. Of these thirty nine, 33 (85.8%) were males and six(14.2%) were females. Twenty nine (32.2%) used nicotine, 19(21.1%) used volatile hydrocarbons, 8(8.9%) used cannabis six (6.7%) used alcohol, five (5.6%) used khat and three (3.3%) used sedatives. Multiple substance use was also evident.

**Conclusion:** This study has shown a high presence of substance use in children and young persons appearing in the Nairobi Juvenile court.

**INTRODUCTION**

It is often assumed that the illicit drug problem in sub-Saharan Africa is of minor concern when contrasted with the experience in the western world. There are two reasons to question that assumption. Firstly, we have an incomplete picture of the drug problem in Africa because data on illicit drug trends in the region have until now been relatively sparse. Secondly, there is reason for skepticism as recent economic, social and political instability throughout the continent has created needs that are clearly not being met by traditional societies or legal commercial markets (1). Hence indulgence in illicit drug trade has become a major problem among the various population groups in the world, Kenya included.

Childhood drug use studies have been conducted in various settings. Of 700 delinquent youngsters examined by Russel(2) at the Institute of Juvenile Research, Chicago, 28% used marijuana, 11.7% used barbiturates, 11% used amphetamines, 8.6% used LSD, 2.3% used heroin and 26% frequently used alcoholic beverages.

Jalali(3) reported a survey of 2131 adolescents in five New Jersey Schools, with age ranging from 12 to 18 years. Amphetamine use was 26.3%, barbiturates

25.3%, hallucinogens 21.1%, cocaine 13.6%, inhalants 13.2% and opiates 9.3%.

Martinez(4) identified several risk factors that point to an increased probability that a young person will use drugs. These include: early use of alcohol or tobacco, alienation from family, religious institution, school and community, poor academic performance and boredom with school, antisocial behaviour; having friends who use drugs; a lack of strong positive role models; a family history of drug and alcohol use and no consistent discipline or direction from adults.

Mwangi (5) in a study on the psychiatric morbidity among 78 children in a community based institution in Nairobi found the prevalence of psychoactive substance use to be 28.2% inhalants, 26.9% cannabis 16.6% nicotine, 2.6% alcohol and 2.5% sedatives.

Ndetei, Kathuku and Otieno(6) in a study of economic-social-political aspects of illicit drug use in Kenya found that the commonest substances illicitly used by children between, the age group 0-9 years were volatile hydrocarbons (75% in this age group) followed by cannabis (25%). In the 10-15 years age group drug use was as follows, volatile hydrocarbons (40%), cannabis (31.4%), cocaine/cannabis (11.4%), mandrax/cocaine (2.9%), amphetamine and heroin (single cases). In the 16-20 years age group, drug use was as follows;

cannabis (73%), mandrax/cocaine (13.3%). This study also found the 60% of the illicit drug users were ex-street children and had been involved with the police. The main objective of this study was to describe the magnitude of substance use among children and young persons appearing in the Nairobi Juvenile Court, Kenya

#### MATERIALS AND METHODS

The study was conducted at the Nairobi Juvenile Court, Kenya. Authority to conduct research was obtained from the Office of the President. As all the children and young persons in this study were below the age of 18 years, consent for interviewing them was requested from the Office of the President. The relevant protocol through the Permanent Secretary, Ministry of Home Affairs, the Registrar of Courts, the Director of Children's Department and the Director of Probation was followed to enable one of the researchers to be present in the juvenile court and to be assisted by the probation officers and children's officers. In criminal offenders, every third child or young person who appeared on the court register during the study period was interviewed and designated as Group I. This comprised of children who were in police custody for having broken any of the various laws of the Republic of Kenya. All children and young persons appearing in the court for protection and discipline during the study

period were interviewed and designated as Group II. These were children who were found neglected in various domestic situations as well as those brought by their relatives to court for discipline on account of their pervasive abnormal behaviour.

A total of 90 children and young persons between the age of 8 and 18 years were studied. Sixty of them were selected by systematic random sampling from a similar group brought to court by police through the probation department (Group I). All of the thirty children and young persons brought by their parents or other caregivers through the children's department were interviewed.

A socio-demographic questionnaire was first administered followed by the drug use questionnaire. Data analysis was done by a computer using the Statistical Package for Social Sciences (SPSS) Version 10.0. Probability value of equal or less than 0.05 ( $P \leq 0.05$ ) was taken to be statistically significant.

#### RESULTS

Out of the total sample studied, substance use was reported in 39 children (43.3%). The substances used were nicotine (32.2%), volatile hydrocarbons (21.1%), cannabis (8.9%), alcohol (6.7%), khat (5.6%) and sedatives (3.3%) in that order of descending frequencies. Multiple substance use was an associated factor (Tables 1 and 2).

Table 1

*Crude substance use versus sex*

Sex	Count	Row %	Column %	Total %	Yes	No.	Total
Males	33	51.1	84.6	36.7	33	31	64 (71.1%)
	6	23.1	15.4	6.7	6	20	
	23.1	15.4	6.7	23.1	23.1	76.9	
	15.4	6.7	22.2	15.4	15.4	39.2	
Females	6	23.1	15.4	6.7	6	20	26 (28.9%)
	23.1	15.4	6.7	23.1	23.1	76.9	
	15.4	6.7	22.2	15.4	15.4	39.2	
Total	39	(43.3%)	51	(56.7%)	39	51	90 (100%)

$X^2=6.11$ ,  $DF= 2$ ,  $P=0.0134$ ,  $SS$

1. Findings statistically significant
2. Crude substance use was 43.3%
3. Substance use among males was 51.1%
4. Substance use among females was 23.1%
5. Male substance use rate of the study sample was 36.7%
6. Female substance use rate of the study sample was 6.7%

Table 2

*Type of substance used versus sex*

Substance	Group I		Group II		Summed Freq.
	Male	Female	Male	Female	
Nicotine	19	1	7	2	29
Inhalants	13	3	3	0	19
Cannabis	3	0	4	1	8
Alcohol	2	0	2	2	6
Khat	3	0	1	1	5
Sedatives	1	0	2	0	3
Total	41	4	19	6	70

1. The crude rate of substance use in this study was found to be 43.3% (Table 3).
2. A total of 70 patterns of substance use among the users were noted.
3. Statistical analysis of substance use vs PM was not done due to high number of zero scores.
4. Multiple drug use is also evident from the Table.

Table 3

*Age at first use versus type of substance used*

Age(years) at first use	Group I						Group II						Summed Freq.
	NIC	VH	CAN	ALC	KHA	SED	NIC	VH	CAN	ALC	KHA	SED	
9-10	0	0	0	0	0	0	1	1	1	0	0	0	3
11-12	3	6	0	0	0	1	1	0	0	0	0	0	11
13-14	8	6	0	0	0	0	3	2	1	0	0	0	20
15-16	6	3	1	2	2	0	2	0	1	2	1	0	20
17-18	3	1	2	0	1	0	2	0	2	2	1	2	16
Total	20	16	3	2	3	1	9	3	5	4	2	2	70

NIC=Nicotine, VH=Volatile hydrocarbons, CAN=Cannabis, ALC=Alcohol, KHA=Khat, SED=Sedatives

1. Substance use starts at a younger age (9-10 years) in group II compared to group I (11-12 years).
2. Nicotine, volatile hydrocarbons and cannabis are the drugs of choice for first use in group II.
3. Volatile hydrocarbons, nicotine and sedatives are drugs of choice for first use in group I.
4. The peak drug initiation age was noted as 13-16 years in both groups.
5. Statistical analysis was not done due to high number of zeros.

The age of first use of a psychoactive substance in Group II in this study was in the age range of 9-10 years: with nicotine VH (volatile hydrocarbons) and cannabis as the substances of first choice. In Group I the age of first use of a psychoactive substance was in the range of 11-14 years with nicotine, VH and sedatives as the substances of first choice. In the 10-16 year age range the incidence of substance use increased but still with nicotine, VH and cannabis as the substances of choice in both groups. Age of first use of khat and alcohol ranged from 15-18 years in both groups.

Figure 1

## Substance of choice for first use

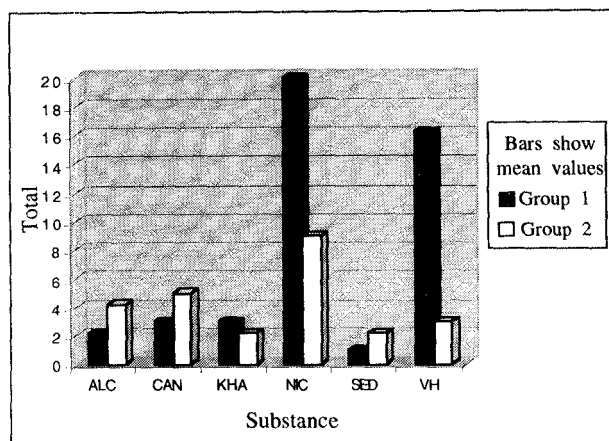
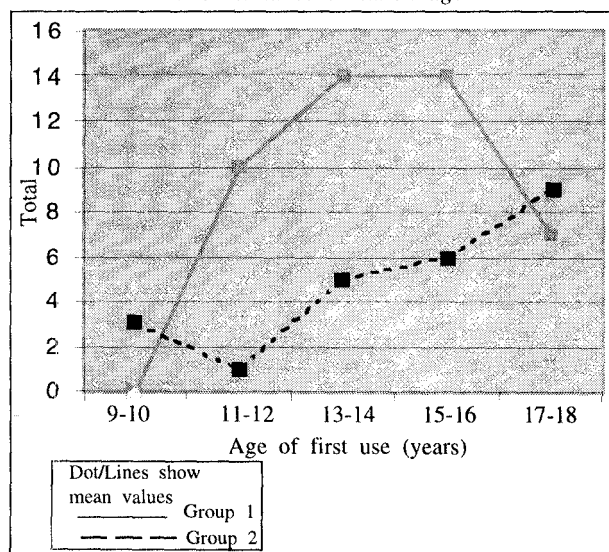


Figure 2

## Peak substance initiation age



## DISCUSSION

This study focused on the point prevalence of psychoactive substance use among the two groups studied. Crude rate for substance use in this study was found to be 39(43.3%) out of the total sample of 90 children and young persons. Of these thirty nine, 33 (85.8%) were males and six (14.2%) were females. The M: F ratio was 5.5: 1.

Earlier studies found the drugs commonly used by secondary school students to be alcohol, tobacco, inhalants, cannabis, amphetamines, opiates and cocaine in that order of severity of use (5,7). This study confirmed the order of severity of psychoactive substance use as nicotine, inhalants, cannabis, alcohol, khat and sedatives.

(i) *Nicotine Use:* Out of the total sample of 90 children, 29 (32.2%) used nicotine and were composed of 26 (28.9%) males and three (3.3%) females. Out of these twenty nine, 20 (70%) were from group I and nine

(30%) were from group II. Of the 20 from group 1, 19 (95%) were males and one (5%) female. Of the nine from group 11, seven (77.8%) were males and two (22.2%) females. The M: F ration was 8.5:1 (19:1 for group I and 3.5:1 for group 11). This shows that nicotine use was a major problem among males in both groups. Earlier studies found a childhood nicotine use of 16.6% among similar age groups (5).

(ii) *Volatile Hydrocarbons (VH) Use:* This was the second most used substance. A total of 19 out of 90 (21.1%) used volatile hydrocarbons and were composed of 16 (17.8%) males and three (3.3%) females. Out of these nineteen, 16 (68.6%) were from group I and six (31.4%) from group 11. Of the 16 from group I, 13 (81.2%) were males while three (18.8%) were females. Of the three from group II all were males. The results reported by Wangari (7) and Mwangi (5) were similar to the 21.1% use of VH found in the present study.

(iii) *Cannabis Use:* This was the third most used substance. A total of eight out of 90 (8.9%) used cannabis and were composed of seven (7.8%) males and one (1.1%) female. Out of these eight, three (37.5%) were from group I and five (62.5%) from group 11. Of the three from group one, all were males. Of the five from group 11, four (80%) were males and one (20%) female. Wangari (7) reported cannabis use as 19% among urban and 12% among rural secondary school students. Mwangi (5) reported 26.9% cannabis use among children in the age group of 10-15 years. The lower percentage, 8.9%, of cannabis use in the present study could be a result of denial of use by the children, interviewed at the juvenile court, fearing more severe punishment.

(iv) *Alcohol Use:* A total of six out of 90 (6.7%) used alcohol and were composed of four (4.4%) males and two (2.2%) females. Out of these six, two (33.3%) were from group I and four (66.7%) from group 11. Of the two from group I, all were males. Of the four from group 11, two (50%) were males and two (50%) females. Alcohol use was reported by Mwangi (5) as 2.6%.

(v) *Khat Use:* A total of five out of 90 (5.6%) used Khat and were composed of four (4.4%) males and one (1.1%) female. Of these five, three (60%) were from group I and two (40%) were from group II. Of the three from group I, all were males. Of the two from group II, one (50%) was a male and one (50%) a female.

(vi) *Sedatives use:* A total of three out of 90 (3.3%), used sedatives and were composed of one (1.7%) male from group I and two (6.7%) males from group II. None of the females had used sedatives from either of the groups. Mwangi (5) reported sedative use rate of 2.5%

*Pattern of use:* In this study nicotine was found to be used most; followed by inhalants, cannabis, alcohol, khat and sedatives in Group I. Among psychoactive substance users in Group II, nicotine was found to have been used most followed by cannabis, alcohol, inhalants,

khat and sedatives. This difference in group specific pattern of psychoactive substance use may be attributed to the availability of the substance and money for purchase of the psychoactive substance. Hence group II children who came from some domestic setting seemed to have access to better resources of funding their drug use (Figure 2).

Mwangi (5) found inhalants to have been abused most followed by cannabis, nicotine, alcohol and sedatives. Except for khat, the types of substances used in Mwangi's study and this study are similar. The commonest drug of abuse in Wangari's(7) study was alcohol followed by tobacco, inhalants, cannabis, amphetamines, opiates and cocaine.

In a study by Ndetei *et al*(6) the age of first drug use was in the age range of 0-9 years starting with volatile hydrocarbons and then cannabis. In the 10-11 year age group, the incidence of drug use increased but still with volatile hydrocarbons and cannabis as the drugs of first choice.

From this study and the study by Ndetei *et al*(6) it is evident that age of first drug use is below nine years and the commonest drugs used at this age are VH, nicotine and cannabis. Most of the users admitted experience with more than one substance. However, the Group I children had an earlier peak drug initiation age (13-14 years) than the Group II children (17-18 years) (Figures 2 and 3). Child drug users were initiated to drug use as early as below nine years of age. Males were more represented in drug use. Multiple drug use was the norm. There were two distinct patterns of drug use determined by availability of resources to fund the drug use. Children from domestic settings engaged in substances that were expensive to purchase whereas the street children tended to use whatever was cheap and readily available.

### CONCLUSION

The present study showed that substance use was found in 43.3% of children and young persons brought to the Nairobi Juvenile Court due to criminal activities, for discipline or protection. Most had more than one

psychoactive substance use. Child drug users were initiated to drug use as early as below the age of nine years. Males were more represented in drug use.

There were two distinct patterns of drug use determined by availability of resources to fund the drug use. Children from domestic settings engaged in substances that were expensive to purchase whereas the street children tended to use whatever was cheap and readily available.

*Recommendations and further research:* The results of this study indicate the need for further studies among similar population groups in their natural habitat, the streets, homes and community based institutions. Such data is necessary in order to originate a rational mental health policy to curb drug use among children and young persons in Kenya.

### ACKNOWLEDGEMENTS

To all members of staff of the Probation and Children's Departments, Ministry of Home Affairs, Nairobi, Kenya for their undeniable assistance during this study. This work was in part financed by m/s Solvay Pharma through Philips Pharmaceuticals Limited, Kenya.

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