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Self-reported drug use among secondary school students in the Nigerian State of Ogun

M. L. ADELEKAN

Department of Behavioural Sciences, University of Ilorin, Ilorin, Nigeria

ABSTRACT

A survey of drug use, based on a sample of 990 students in their fourth and final year of secondary school in the Abeokuta local government area of the State of Ogun in Nigeria was conducted by means of a self-report drug-use questionnaire in September 1986. There were 534 male and 377 female respondents. Their mean age was 16.4 and the majority (89 per cent) of them were from the lower or middle socio-economic levels.

The most commonly used drugs were salicylate analgesics, mild stimulants, alcohol, antibiotics and diazepam. Low use was recorded for barbiturates, cannabis, organic solvents and cocaine, and there was no reported use of narcotic analgesics or hallucinogens. Females used diazepam significantly more than males. Most users had their first contact with drugs in primary school. The author stressed the need to develop a viable drug-abuse preventive programme and a comprehensive data base in Ogun.

Introduction

Most of the earlier drug abuse studies carried out in Nigeria were hospital-based [1-9] and the drugs reported to be commonly abused were cannabis [1-4], alcohol [5, 6], stimulants [7, 8] and hypno-sedatives [9]. Although those studies provided useful baseline data, most of them were not representative and did not show the extent of the problem in the population. This shortcoming has prevented a meaningful planning of preventive strategies. In the past two decades, epidemiological studies [10-16] have been carried out in various parts of the country to complement the hospital-based studies. Essentially, the epidemiological studies have tended to suggest that drug abuse is on the increase, particularly among youth. Some of the other important findings of the studies include a declining age of first contact, increasing female involvement, a trend towards multiple drug use, and, most recently, the incursion of hard drugs [17].

There has been a great public outcry for stringent measures to curb the rise in drug abuse in the country. The Government has also expressed its concern regarding this issue and, as part of its efforts to tackle the problem, recently

launched a national campaign against drug abuse and drug trafficking. The lack of epidemiological data on drug abuse is, however, a major hindrance to efforts by the Government, as published data are available from only five of the 21 states in the country. Ogun is one of the states without any baseline epidemiological information on drug use among the various segments of its population. The present study was aimed at determining the prevalence and pattern of drug use among a student population in Ogun. It is hoped that the findings may pave the way for a more comprehensive Government-sponsored, state-wide survey.

Method

Setting

The present study took place between September and November 1986 in secondary schools in the Abeokuta local government area of the State of Ogun. Ogun, situated entirely within the tropics and covering some 16,400 square kilometres, has an estimated population of 3 million people, most of whom are members of the Yoruba ethnic group. It is divided into 10 local government areas. Abeokuta has the largest number of secondary schools in the state. Its inhabitants are predominantly farmers, small-scale traders, teachers, artisans and civil servants. Commercial activities and social life are rather limited.

Procedures

The sampling frame consisted of 10,050 students in the two upper classes (classes IV and V) of the 36 schools in Abeokuta. The sample size was 1,000 students, which represented about 10 per cent of the sampling frame.

Of the 36 schools, 33 were coeducational, two were for boys only and one was for girls only. Thirty-two schools were in urban areas and the rest were in rural areas. A multi-stage proportionate sampling technique was used to select seven schools: six urban schools and a rural one. Five of the selected schools were coeducational, one was for boys only and one was for girls only. In each of the selected schools, further stratification was carried out to ensure proportionate representation of the classes and, in the coeducational schools, the sexes. The final sample was selected from the nominal list of each school using the systematic random sampling technique.

A pilot study was carried out to adopt the student drug-use questionnaire published by the World Health Organization [18] for use in the local environment. The pilot study showed that the questionnaire was reliable and valid for use in this environment; however, it would need to be restructured and simplified to facilitate its administration.

The number of items was reduced from 164 in the pilot study to 101 in the final version and the time allowed for filling in the questionnaire was reduced from 80 minutes to 45 minutes. The first 45 items of the final version of the questionnaire provided personal data, including data on the respondents'

families. The remaining 66 items were on the use of the following drugs: salicylate analgesics, alcohol, stimulants, antibiotics, cigarettes, hypno-sedatives, barbiturates, cannabis, cocaine, opiates, organic solvents and hallucinogens. Questions on each drug were worded to elicit the following information: whether the respondent had heard of the drug; ever seen it; ever used it; frequency of use; class level at time of first use; and specific type of drug used.

The survey lasted three days and was administered in class-rooms. Strict confidentiality was ensured; respondents were not required to write their names on the questionnaires. The anonymity of the respondents was assured at the beginning of each session. While the respondents filled in the questionnaires, teachers were not present and the respondents were not allowed to communicate with one another.

Data analysis was carried out manually. Seventy-nine questionnaires were rejected for containing five or more errors in the form of missing data or inconsistent responses.

The t-test and chi-square were used to assess statistical significance, and the level of significance was set at 5 per cent.

Results

Of the 911 respondents whose questionnaires were accepted for analysis, 534 were male and 377 female, yielding a male-female ratio of 1.4 to 1. There were 466 class IV and 445 class V students. Only 125 respondents (13.7 per cent of the total) were from the rural school. The respondents were distributed in the 13-20 age group with an average (mean) age of 16.4. In terms of their socio-economic background (determined on the basis of the occupation and educational status of the respondent's father), 43.4 per cent were from lower-class and 46.5 per cent from middle-class families, while the rest (10.1 per cent) were from upper-class families. Respondents from urban schools were significantly more represented in the upper socio-economic group than those from the rural school.

Prevalence rates

Table 1 shows that the most currently used drugs were salicylate analgesics, followed by stimulants (mainly coffee and cola nuts, which contain caffeine), antibiotics (mainly tetracycline and ampicillin capsules), alcohol (mainly palm wine and beer), hypno-sedatives (mainly diazepam) and cigarettes.

Table 2 shows the percentage of the respondents who had heard of or seen some of the less commonly available drugs before. The majority of the respondents claimed to have heard about cannabis, cocaine, heroin and, to a lesser extent, organic solvents. Only a small percentage, however, claimed to have seen those drugs, and an even smaller percentage claimed to have used them.

The majority of the respondents were non-users of the drugs investigated, the range for non-use being 17.5-100 per cent (mean: 77 per cent). The range

Table 1

Prevalence rates of drug use by respondents

Drug (and number of respondents)[a]	*Non-users*		*Past users*		*Current users*		*Lifetime users*	
	Number	*Percentage*	*Number*	*Percentage*	*Number*	*Percentage*	*Number*	*Percentage*
Salicylate analgesics (N = 897)	157	17.5	224	25.0	516	57.5	740	82.5
Alcohol (N = 901)	437	48.5	306	34.0	158	17.5	464	51.5
Stimulants (N = 890)	472	53.0	115	12.9	303	34.1	418	47.0
Antibiotics (N = 905)	589	65.1	151	16.7	165	18.2	316	34.9
Cigarettes (N = 906)	769	84.9	121	13.3	16	1.8	137	15.1
Hypno-sedatives[b] (N = 897)	765	85.3	70	7.8	62	6.9	132	14.7
Barbiturates (N = 907)	874	96.4	23	2.5	10	1.1	33	3.6
Cannabis (N = 908)	894	98.5	9	1.0	5	0.5	14	1.5
Organic solvents (N = 911)	901	98.9	7	0.8	3	0.3	10	1.1
Cocaine (N = 909)	904	99.5	2	0.2	3	0.3	5	0.5
Pethidine or morphine (N = 909)	909	100.0	..	..	..	..	..	..
Hallucinogens (N = 909)	909	100.0	..	..	..	..	..	..
Consolidated prevalence rate (N = 911)	83	9.1	169	18.6	659	72.3	828	90.9

[a]Some values for N were less than 911 due to missing data or inconsistent responses.

[b]Including benzodiazepine

Table 2

Proportion of the respondents who had heard of or seen less commonly available drugs

(Percentage)

Drug	*Heard of*	*Seen*
Diazepam	44.9	28.2
Cannabis	66.7	9.3
Butobarbitone	35.0	7.2
Cocaine or heroin	66.6	4.7
Organic solvents	21.8	3.9
Pethidine or morphine	5.7	1.0

for past use of the drugs (experimentation) was 0-34 per cent (mean: 10.4 per cent) and the range for current use was 0-57 per cent (mean: 12.6 per cent).

Pattern of drug use

The majority of the current users were in the mild current use group (range: 75-93.5 per cent; mean: 83.4 per cent). The range for the moderate current use group was 4.8-21.9 per cent (mean: 14.1 per cent), while the range for the heavy current use group was 1.7-4 per cent (mean: 2.5 per cent).

An examination of the patterns of drug use showed that lifetime use of diazepam was significantly higher among females than among males ($p<0.05$). The difference did not reach statistical significance for current use. Current use of stimulants was also significantly higher among females than among males ($p<0.02$). Lifetime use of alcohol, however, was higher among males ($p<0.01$), although the sex difference in current use was not statistically significant. The use of salicylate analgesics, diazepam and alcohol was significantly higher among students from urban schools than among those from rural areas ($p<0.05$).

The majority (88.5 per cent) of those who claimed to have used stimulants used cola nuts (47 per cent) or coffee (41.5 per cent). Other stimulants reportedly used included ephedrine (5 per cent), Reactivan (3.7 per cent), amphetamine (1.7 per cent), Ritalin (0.7 per cent) and Proplus (0.6 per cent). For alcohol, 36.7 per cent of the users claimed to have used palm wine, 35.7 per cent beer and the rest wine or gin.

The respondents started using the more commonly used drugs, mainly analgesics, antibiotics and alcohol, while in primary school.

Discussion

Alcohol, with a lifetime prevalence rate of about 52 per cent, was second only to salicylate analgesics in the list of commonly used drugs. This is

consistent with previous findings in Nigeria [12-16]. The reasons for the extensive use of alcohol by youths in Nigeria can be found in its ready availability and the lack of legal sanctions on its production, distribution and consumption. There is no age or time restriction on alcohol use in most parts of the country.

Another interesting finding in the study was that although, on the whole, males used alcohol more than females, the difference was small, reaching statistical significance only when lifetime use was compared. This is also similar to previous findings in Nigeria [12-16]. The majority of the users began using alcohol while in primary school. The implications of these findings is that educational measures should be aimed at both sexes and should begin in primary school.

The study also revealed that stimulants were widely used by students. Unlike previous studies in Nigeria [4, 11, 12], however, in which the use of stronger stimulants, such as amphetamine, Proplus, ephedrine and Ritalin, was reported, the majority (88 per cent) of the users in this study used mild, common and cheap stimulants (cola nuts and coffee), mainly while studying (e.g. to keep awake during examinations). This finding is similar to that of a study carried out by Nevadomsky [15], in which 92 per cent of a sample of university students claimed to have used mainly coffee and cola nuts. Further research is needed on the reasons for students' preference for cola nuts.

The high prevalence rates recorded for salicylate analgesics and antibiotics in this study can be explained by their indiscriminate use in Nigeria. They are easily obtained in patent medicine stores and pharmacies without a doctor's prescription. The dangers associated with their indiscriminate use are numerous; among other things, they are often used to commit suicide [19]. There is, therefore, a need for governmental control of the sale of these drugs. The public should also be made more aware of the dangers of indiscriminate use of such drugs.

The lifetime prevalence rate recorded for the use of hypno-sedatives in this study was 14.7 per cent. This figure is similar to that recorded in a study by Ogunremi and Rotimi [11] but lower than the figures of 29-34 per cent obtained in studies by Nevadomsky [14, 15]. This study's finding that more females than males claimed to use diazepam is in conformity with the findings of previous studies [13-15]. It would appear, therefore, that female Nigerian students, in general, tend to use sleep-inducing drugs more than their male counterparts. The reasons for this need to be investigated. The sale of diazepam in Nigeria should be more strictly controlled by the Government because, apart from being addictive, it is also reportedly used as a suicidal agent [19].

Only 1.5 per cent of the respondents in this study confessed to having used cannabis. This low prevalence rate is similar to those found in some studies in Nigeria [10-12] but lower than the rates of others [14]. There may have been some degree of underreporting: first, the use of cannabis is illegal and socially condemned in Nigerian society; second, the validity check in the pilot study indicated that cannabis-related questions received the lowest figure for "honesty of response".

The finding that about 70 per cent of the respondents claimed to have heard about cocaine or heroin was not surprising, as the drugs had recently been in the news headlines. There had been several news media reports on increased trafficking and use of cocaine and heroin and on the arrests of pushers in Lagos, a neighbouring state. Although the low lifetime prevalence rate of 0.5 per cent in this study might imply some degree of underreporting, it is probably more a reflection of the low use of illicit or hard drugs in general.

Concluding remarks

It would appear from this study that drug abuse, as it relates to the use of illicit or dangerous drugs, is not common in Ogun. Drugs reported to be commonly used are taken while studying or belong mainly to the group of licit and socially acceptable drugs; the majority of the instances reported involved occasional users. None the less, there is a need to embark on a comprehensive drug education campaign in Ogun to make students more aware of the dangers inherent in the inappropriate use of such drugs. The abuse of less commonly used drugs should also be continuously monitored. To obtain a better general picture of drug use in Ogun, similar studies should be carried out among other segments of the population, including other student groups, non-student youth, artisans, civil servants and law enforcement agents.

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