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Drug use among senior secondary school students in rural Nigeria

TO Lawoyin, OO Ajumobi, MM Abdul, JO Abdul Malik, DA Adegoke and OA Agbedeyi
Department of Community Medicine, College of Medicine,
University College Hospital, Ibadan Nigeria

Summary

Several studies in Asia, USA and the United Kingdom have shown widespread drug use among adolescents and young adults, thus drawing global attention to this problem. There is however a paucity of data on drug use among youths in rural Nigeria. The target population for this study were adolescents and youths from three out of the 6 senior secondary schools in Igboora, Nigeria, selected by simple random sampling. A cross-sectional study, using interviewer-assisted questionnaire to determine the prevalence of and identify factors associated with drug use. Two hundred and seventy three (69.3%) respodents were currently using one or more drugs of which 123 (45.1%) were single drug users while 150 (54.9%) were multiple drug users. Fourteen different psychoactive substances were reportedly used of which *Alabukun*, a popular, locally manufactured analgesic (a mixture of *acetyl salicylic acid* and caffeine) was the most commonly reported drug currently used and ever used. Alcohol was the next commonly reported currently used drug while Kolanut was the next commonly ever-used drug. Tobacco ranked low on the list with only 1.5% current users, while 4.4% reported having ever-used this drug. Following logistic regression analysis, having peers (close friends) and primary caretakers who use drugs, significantly increased the chances of the students using drugs ($P < 0.001$, $P < 0.001$). Males compared with females were also significantly more likely to use drugs ($P = 0.024$). Significant relationship exists between drug use and poor role modeling. Introducing peer counseling, community awareness and working with adults who have adolescents at home would go a long way towards reducing psychoactive drug use at community and household level, particularly among in-school youths.

Keywords: *Psychoactive drug use, tobacco, alcohol, in-school youths, peer influence*

Résumé

Plusieurs etudes en Asie , Amerique et Europe ont montres un deployment intense des medicaments permi les adolescents et jeunes adultes attirant une attention globale. Il ya cependant un manque des donnees en zone rurale au Ni
geria.. Cette etude visait les adolescents et jeunes adultes dans trois des six colleges selectionnes au hazard a Igbora au Nigeria et utilisant un questionnaire pour determiner la prevalence et les facters induisant l'emploi des tels medicaments.Deux cent soizante treize(69.5%) utilisaient un ou plus de de medicaments desquels 123(45.1%) etaient sur monotherapie et 150(54.9%) sur multiple therapies. L'utulisation commune contre les douleurs dans l'orde decroisant Alabukun, l'acool et la cola(riche en caffeine) ,quatorze different substances psychoactive etaient rapportees.un taux faible de tabac de 1.5% et 4.4% des sujects sain.. L'analyse en regression logique montrait une augmentation significative de chanement des edicaments($P<0.001$). Les males etaient significantivement plus exposes a l'abus que les femeles($P=0.024$). Il existait une relation significantive entre les medicaments et le roe des modeles. L'introduction des conseils, sensibilition communautare et l'emploi avec les adultes aideront a reduire les subsatnces psychoactive en communaute et au niveau des familles particulieremennt parmi es ecoliers et collegiens.

Introduction

The use of psychoactive substances among adolescents and young adults has become a subject of public concern worldwide partly because of its potential to contribute to unintentional and intentional injury [1,2]. Hazardous use also carries a risk of future damage to overall health status [3]. In addition, abuse of psychoactive substances by youths could lead to very serious consequences related to limiting their educational achievement [4,5]. Studies have also identified an association between drug use and the number of life time sexual partners, thus indicating that drug use behaviour increases adolescents and young adults risk for acquiring sexually transmitted infections and unintended pregnancy [4,6,7].

In a study carried out among senior secondary school students in south west Nigeria, about half of the students used alcohol, many commencing use as early as the age of 10 years [3]. Adelekan in his study among university undergraduate in north central Nigeria found a much higher prevalence rate of 77.1 percent for alcohol [13]. Solvent abuse appears to be a more recent development and has been reported in Nigeria among secondary school students [3]. In a study, the

Correspondence: Prof. Taiwo Lawoyin, Department of Community Medicine, College of Medicine, University College Hospital, Ibadan, Nigeria. E-mail: tlawoyin@skannet.com

use of solvent was more commonly observed among out-of-school youth apprentices now working in close contact with these solvents [10].

Several studies in Asia, USA and the United Kingdom show widespread drug use among adolescents and youths, making this a problem requiring global attention [1,5-7,12]. There is a paucity of data on drug use among youths in rural Nigeria. While some studies report drug use as a rural problem, others report it as a problem more commonly seen in urban locations and in relation to the process of urbanization and westernization [13-15]. This study was carried out to determine the prevalence of drug use and identify socio-demographic and other factors associated with drug use among in-school adolescents and young adults in rural south-west Nigeria. This is urgently needed for designing an appropriate intervention program to meet the needs of the youths in the community.

Materials and methods
Study area
The study area Igboora, is a rural town located in the South western part of Nigeria and at the boundary of Oyo State. The large majority of the populace are small scale farmers with secondary attachments to trades and craft. Few white-collar jobs are available.

Study population
The target population for this study were adolescents and youths (14-24 years) from senior secondary schools in Igboora, Nigeria.

Study design and scope
A cross sectional study to determine the prevalence of drug use and identify factors associated with the use among senior secondary school students.

Sampling technique
There are 6 government-owned secondary schools in Igboora all of which are co-educational. Using a two-stage sampling technique, three out of the 6 secondary schools in Igboora were first selected by simple random sampling. A list of all the senior classes (Senior secondary SS1-3) was obtained for the three schools. An arm of each class was selected from the list of classes using simple random sampling. All consenting students in the selected classes were enrolled.

Research instrument
Information was collected using a pretested, precoded open and close-ended, interviewer-assisted questionnaire, which was designed in English and translated into vernacular and back translated into English to ensure that the original meanings were retained.

Data management
The data were entered and analyzed using EPI info version 6 software. Data were exported into SYSTAT version 8 for multiple logistic regression analysis. This was to control for confounding variables and to analyze the predictor variables simultaneously. The dependent variable was ever use of any drug as a dichotomous entity, while the independent or predictor variables were the socio-demographic and other factors which also denoted the risk factors of interest. An odds ratio of greater than (>1) or less than (<1) one for a particular variable indicates that the study subjects in that category were more likely or less likely to have ever used psychoactive drugs when compared with the respondents in the reference category [16].

For the purpose of the study, current use was defined as the respondent using a drug in the last one year and also within the last seven days prior to the study. Informed consent was obtained from all respondents and permission to carry out the study from respective school authorities. Confidentiality was maintained and names were not used.

Results
A total of 394 students were interviewed. Two hundred and seventy three (69.3%) were currently using one or more drugs of which 123 (45.1%) were single drug users while 150 (54.9%) were multiple drug users.

Table 1 shows socio-demographic factors and drug use following bivariate analysis. The older the student, the more likely they were to have used any drug ($P = 0.037$) and males were significantly more likely to have ever-used drugs ($P = 0.005$). Peer influence and care giver influence were significant as the use of drugs among close friends and by primary care givers was associated with significantly increased risk of use among respondents. Being engaged in odd jobs was also associated with significantly increased use ($P = 0.015$). Borderline significantly increased risk of use was observed among adolescents and young adults from polygamous homes ($P = 0.088$), while religion and type of family had no significant effect on ever-use of drugs.

Current use and ever-use of drug
Fourteen different psychoactive substances were reportedly used by the youths. *Alabukun*, a popular, locally manufactured analgesic (a mixture of *acetyl salicylic acid* and caffeine) was the most commonly reported drug currently used and ever used. This over the counter drug was used for other conditions apart from what it was manufactured for. Alcohol was the next commonly reported currently used drug, while kolanut (rich in caffeine) was the next commonly ever-used drug. Tobacco ranked low on the list with only 1.5% current users, while 4.4% reported having ever-used this drug. Table 2 shows the currently used and ever used drugs.

Table 1: Socio demographic factors and ever-used drugs among adolescents and young adults

Variable	(n)	Ever-used drugs No. (%)	P-value
Age in yrs			
14-16	(151)	95 (62.9)	
17-19	(212)	152 (71.7)	
20-24	(31)	26 (83.9)	
Total	(394)	273 (69.3)	0.037
Sex			
Male	(217)	163 (75.1)	
Female	(177)	110 (62.1)	
Total	(394)	273 (69.3)	0.005
Religion			
Christians	(163)	106 (65.0)	
Non-Christians	(231)	167 (72.3)	
Total	(394)	273 (69.3)	NS
Close friends			
Use drugs	(113)	100 (88.5)	
Don't use drugs	(281)	173 (61.6)	
Total	(394)	273 (69.3)	<0.000001
Primary care giver			
Uses drugs	(157)	131 (83.4)	
Does not use	(237)	142 (59.9)	
Total	(394)	273 (69.3)	<0.0001
Odd job			
Engaged	(176)	133 (75.6)	
Not engaged	(218)	140 (64.2)	
Total	(394)	273 (69.3)	0.015
*Type of marriage**			
Monogamous	(188)	122 (64.9)	
Polygamous	(206)	151 (73.3)	
Total	(394)	273 (69.3)	0.088
Type of family			
Both parents together	(277)	191 (69)	
**Others	(117)	82 (70.1)	
Total	(394)	273 (69.3)	NS

*of parents.   **dysfunctional family.
NS - not significant at the 5% level

Table 3 shows the adjusted odds of a student ever using psychoactive substances. Having peers (close friends) and primary care giver (parent and guardian) who use drugs significantly increased the chances of the students using drugs ($P < 0.001$, $P < 0.001$) respectively. Males were also significantly more likely to use drugs compared with their female counterparts ($P = 0.024$). Age and having an odd job, which were significant variables in the bivariate analysis, were no longer significant following logistic regression analysis. Type of family and marriage of parents were also not significant influences at the 5% level following regression analysis.

Table 2: Drugs currently used and ever-used by in-school adolescents and young adults

Currently used drugs[1] No and (%) using the drugs		Ever-used drugs[1] No and (%) using the drugs	
Alabukun	33 (12.1)	Alabukun	176 (64.5)
Alcohol	30 (11.0)	Kolanut	100 (36.6)
Kolanut	28 (10.3)	Coffee	83 (30.4)
Valium*	23 (8.4)	Alcohol	74 (27.1)
Coffee	23 (8.4)	Valium*	74 (27.1)
Evosyick glue sniffing	8 (2.9)	Evostick glue sniffing	22 (8.0)
Petrol sniffing	8 (2.9)	Petrol sniffing	16 (5.7)
Cigarette	4 (1.5)	Librium**	15 (5.5)
Librium**	2 (0.7)	Cigarette	12 (4.4)
Snuff	2 (0.7)	Snuff	10 (3.7)
Cocaine	1 (0.4)	Cocaine	4 (1.4)
Hashish	0 (0)	Hashish	2 (0.7)

*1 multiple responses,   *diazepam   **chlordiazepoxide*

Discussion

Earlier descriptive studies carried out in Nigeria on hospital admissions and on people arrested for drug trafficking show a predominance of youths, mostly males, school dropouts with little or no parental control [3]. Studies buttress the fact that parental support and care is crucial with respect to drug abuse [3,15]. From the data presented, there was no statistically significant association however between drug use and being brought up in a dysfunctional family. Rather, having close friends and a parent or guardian who use drugs were more likely to have a profound effect on the students' drug habits.

Peer influence has not been well documented in literature, especially in Nigeria. In this study, a strong adjusted effect of peer influence on drug use was observed. A peer-education drug reduction- program should be developed to meet the needs of the students. This should hopefully reduce such high- risk behavior.

The study is in agreement with others that males are more likely to use drugs, lending support to findings from within and outside Nigeria[11,14-17]. Males should be targeted for intervention. The most commonly used drug was *Alabukun*, a salicylate analgesic with caffeine. This has been found in other rural and urban communities in south western and north central Nigeria to be the most commonly abused drug among youths [14,15,18]. Furthermore, Laosebikan reported it as one of the most commonly abused drug among adult commercial drivers in the country [10].

Generally, purely descriptive studies have found employment outside the home to increase the risk of drug abuse [3,9]. In this study, employment outside the home in the bivariate analysis was significantly associated with

Table 3: Adjusted* Odds of a senior secondary student in Igboora using drugs.

Predictor variable	Odds ratio (OR)	95% Confidence limit	P-value
Age in yrs.			
14 - 16	0.5	0.16 - 1.5	0.208
17 - 19	0.85	0.5 - 1.4	0.544
20 - 24	1.0		
Type of family			
Both parents together	0.85	0.5 - 1.5	0.544
**Others	1.0		
Sex			
Male	1.3	1.04 - 1.7	0.024
Female	1.0		
Type of marriage			
Monogamous	0.98	0.6 - 1.6	0.93
Polygamous	1.0		
Odd job			
Engaged	1.3	0.8 - 2.2	0.247
Not engaged	1.0		
Close friends			
Use drugs	1.0		
Don't use drugs	0.32	0.2 - 0.6	< 0.001
Primary care giver***			
Uses drugs	2.5	1.4 - 4.2	< 0.001
Does not use	1.0		

*Quasi-maximum likelihood adjusted,
**dysfunctional family,
***parents/guardians with whom the student lives.

drug use. However, when this variable was adjusted, it was no longer significant though the odds ratio of using drugs was still higher with those students who had jobs. Employment may increase the amount of money available to the students, which they can now spend on drugs. More studies are however needed to determine the relationship between these odd jobs, the amount of money available to the student and drug use.

Important limitations to this study include underreporting of drug use especially of those drugs that are illegal and recall bias.

In summary, this paper informs that *Alabukun* a salicylate analgesic and alcohol are the most commonly currently used drugs and highlights the relationship between drug use and poor role modeling. Introducing a peer-education drug reduction program, increasing community awareness and working with adults who have adolescents at home would go a long way towards reducing drug use at community and household level, particularly among in-school youths.

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