

## Knowledge, attitude and practice of drug abuse among public secondary school students in Lagos, Nigeria

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### Abstract

**Background:** The use of alcohol, tobacco and other substances constitutes one of the most important risk-taking behaviour among adolescents and young adults in secondary schools. This study was conducted to determine the knowledge, attitude and practices of secondary school students in Lagos, Nigeria concerning drug abuse.

**Methods:** This was a descriptive cross sectional study which employed a multistage sampling method to select 400 participants. Data was collected using semi-structured pre-tested interviewer-administered questionnaires.

**Results** The mean age was  $13.8 \pm 1.9$  years. More than 50% knew the meaning of drug abuse, the dangers in using drugs wrongly and the legal status of drug abuse. Many of the respondents had positive attitudes to using illegal drugs (58.5%). The drugs mostly used by the

students were coffee and analgesics while Indian hemp, alcohol and cigarettes were abused sparingly.

**Conclusion:** The level of knowledge of the students concerning drug abuse was fair, many of the respondents had positive attitudes to using illegal drugs and the drugs mostly used were the socially acceptable ones; but they are likely to lead to the use of stronger ones later in life. Drug and alcohol education should therefore be strengthened in schools through the curriculum and drug abuse days. Legislation guiding sales of drugs should be enforced, the public should be educated and the sale of drugs monitored.

**Keywords:** Attitude, Drug Abuse, Knowledge, Students.

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### Introduction

Drug abuse is a patterned use of a substance (drug) in which the user consumes the substance in amounts or with methods neither approved nor supervised by medical professionals. Drug abuse among adolescents and young adults is a global problem. In a study conducted in United States of America between 1998 and 2001 among college students, the proportion of 18-24-year-old who reported driving under the influence of alcohol increased from 26.5% to 31.4%<sup>1</sup>. Another study also revealed that almost one third of adolescents aged 12 to 17 drank alcohol in the past year, around one fifth used an illicit drug, and almost one sixth smoked cigarettes. Another study in United

States of America showed that 9.3% of youths aged 12 to 17 were current illicit drug users: 6.7% used marijuana, 2.9% engaged in nonmedical use of prescription-type psychotherapeutics, 1.1% used inhalants, 1.0% used hallucinogens, and 0.4% used cocaine. Moreover, slightly more than half were drinkers of alcohol (51.6%)<sup>2</sup>.

Drug abuse has become a major public health problem in Nigeria. The threat of drugs to youths, families, the community and the society became more and more pronounced in Nigeria from the '90s. Drug abuse now starts at an early age and cuts across all social groups. However, most drug abusers are young adults within the 15-40 years age group but most especially the 19-25 years age group<sup>3</sup>. In Lagos, Nigeria, the prevalence rates for lifetime use of the substances varied from 3.8% (n=14) for Heroin and Cocaine to 85.7% (n=344) for psycho-stimulants; and for current use varying from 2% (n=8) to 56.5% (n=213). For the so called "gateway drugs": alcohol and tobacco, their lifetime use prevalence rates were 9.2% (n=34) and 5.2% (n=19) while the lifetime use prevalence rate for cannabis was 4.4% (n=16)<sup>4</sup>.

Psychoactive substance misuse has for many years been an issue of increasing health and social importance in Nigeria. Substance is associated with such problems as addiction, poor academic performance, job instability, teen pregnancy,

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transmission of sexually transmitted diseases and other injurious activities. Addiction by its nature distorts thinking processes giving prominence to thoughts, which justify the addictive behaviour and minimize or exclude thoughts about ceasing the behaviour. This can affect development of necessary life and social skills<sup>5,6,7</sup>.

A certain study identified accelerated heartbeat, speeding in the peripheral circulation of the blood, alteration of blood pressure, breathing rate and other body functions as potential effects of drug abuse. Cannabis affects the hormonal and reproductive system and the regular use of cannabis can reduce male testosterone and sperm cells. Drug abuse also contributes to the formation of uric acid which accelerates conditions like arthritis, gout, osteoporosis, and heart attacks, particularly those with pre-existing coronary hypertensive problems. Moreover, studies have shown that crimes such as stealing, vandalism, and violence are associated with "heavy drug use" in adolescence<sup>8,9</sup>.

Research indicates that the majority of drug abusers start during the period of adolescence. Hence, there is no better timing for the prevention and early detection of drug abuse than during the adolescent period. It is estimated that 20.7% of the population is between the age of ten and nineteen years. Children, adolescents and youth constitute not only a formidable demographic force, but also make up the next generation of parents, workers and leaders. Their well being, therefore, has ramifications not only for their own lives, but also for the lives of children they bring into the world, and for the societies they will build and maintain<sup>10</sup>.

Moreover, since majority of substance abuse among youths starts in the school, the school population is the best place for early detection and prevention of substance abuse in the adolescent population.<sup>4</sup> This study was conducted to determine the knowledge, attitude and practices of secondary school students in Lagos, Nigeria concerning drug abuse. The findings from the study can be used by government and other stakeholders to design preventive programmes and interventions that will eventually curtail the menace of drug abuse in the society.

### Materials and Methods

The study was a cross sectional descriptive one conducted in Kosofe Local Government Area, Lagos State. A minimum sample size of 400 participants was obtained using Fisher's formula:

$$n = \frac{z^2 pq}{d^2} = \frac{z^2 p(1-p)}{d^2}$$

A multistage sampling technique was used to select the participants. Two secondary schools (a junior and a senior) were selected by simple random sampling from the list of schools. The selected schools were

Immaculate Heart Comprehensive Junior High School, Maryland and Ikosi Senior High School, Ketu. Two classes per school (JSS 1 and 2) for the junior school and SS1 and 2 for the senior school) were used for the research to make four classes. Two (2) arms were chosen per class using simple random sampling (balloting) to make 8 arms. All the selected students in all the arms were interviewed to obtain 400 respondents.

### Data Collection and Analysis

Semi-structured, pre-tested self administered questionnaire were distributed to the participants. The questionnaire comprised of 4 sections which include: Basic socio-demographic data, knowledge of drug abuse and its effect, attitude to drug abuse and use of drugs. Knowledge was scored using questions 14 and 18 in the questionnaire. A mark was given to each correct answer in both questions; I don't know and none was awarded no mark. The total score was 9 points and each candidate score was converted to percentage. Scores between 0% and 33% were regarded as poor; between 34% and 66% as fair and 67% and above as good. Likert scale (5 point) was used to grade attitude and it ranged from strongly agree to strongly disagree. Practice was not graded.

Data was analyzed both manually and using Epi-info statistical software version 3.5.1. Descriptive statistic using tables and charts of frequencies and percentage was used for demographic data. Inferential statistics with the use of Chi-square ( $\chi^2$ ) was used to compare associations among categorical variables while  $p$  value  $< 0.05$  was considered significant. Ethical approval was obtained from Lagos University Teaching Hospital Human and Research Ethical Review Committee. Permission for the study was obtained from the Chairman of Kosofe LGA, Tutor-general/Permanent Secretary of education District 11, the principal of each schools and written informed consent was obtained from the respondents. Confidentiality was assured and maintained throughout the study.

### Results

Four hundred questionnaires were administered; three hundred and ninety-eight were properly completed giving a response rate of 99.5%. Out of 398 students studied, 180 (45.2%) were males and 218 (54.8%) were females. The mean age was  $13.8 \pm 1.9$  years. Majority, 275 (69.1%) were Christians, 118 (29.6%) were Muslims and only 5 (1.3%) were of traditional African religion. The majority of the respondents 265 (66.6%) were of the Yoruba ethnicity, 93 (23.3%) Igbo, 7 (1.8%) Hausas while 33 (8.3%) respondents were from other tribes.

A little more than half of the respondents (52.9%) knew the meaning of drug abuse to be using un-



prescribed drugs; however majority of the respondents (n=324; 81.4%) were aware of the dangers of using drugs wrongly. Almost three quarters (70.4%) were aware of the legal status of drug abuse. Caffeine (coffee) was the drug used by most of the respondents (53.5%) followed by painkillers/analgesic (19.1%), Indian hemp (3.5%), alcohol (2.5%) and cigarette (1.8%) in that order. Most of the respondents used drugs daily (44%). Almost three quarters of the respondents (n=270; 71.4%) used the drugs for the treatment of medical illness and only 0.8% used it for curiosity. The source of substance was family among 47.4% (n=179) and drug dealers among 3.4% (n=13) of the respondents. A high percentage (68%) of respondents used the drug at home (n=257) and 3.4% (n=13) used it in the bush (Table 1)

Table 1: Distribution of respondents by knowledge of drug abuse and their use of drugs

| Variable                                 | Frequency | %    |
|------------------------------------------|-----------|------|
| Meaning of Drug abuse (N = 384)          | 203       | 52.9 |
| Dangers of using drugs wrongly (N = 384) | 324       | 81.4 |
| Legal status of drug abuse (N = 384)     | 282       | 70.4 |
| Types of drugs used (N=398)              |           |      |
| Pain killer                              | 76        | 19.1 |
| Cigarette                                | 7         | 1.8  |
| Alcohol                                  | 10        | 2.5  |
| Indian hemp                              | 14        | 3.5  |
| Coffee                                   | 213       | 53.8 |
| Frequency of drug use (n=378)            |           |      |
| Once daily                               | 166       | 44.0 |
| ≥ Twice daily                            | 98        | 25.9 |
| ≥ Weekly                                 | 27        | 7.1  |
| Reasons for use of drugs (n=378)         |           |      |
| Treatment of illnesses                   | 270       | 71.4 |
| Curiosity                                | 3         | 0.8  |
| Fun                                      | 45        | 11.9 |
| Sources of substance (n=378)             |           |      |
| Friends                                  | 31        | 8.2  |
| Family                                   | 179       | 47.4 |
| Drug dealer                              | 13        | 3.4  |
| Health care worker                       | 93        | 24.6 |
| Place of use (n=378)                     |           |      |
| Home                                     | 257       | 68.0 |
| Public place                             | 25        | 6.6  |
| School                                   | 15        | 4.0  |
| Bush                                     | 13        | 3.4  |

Almost three quarters (72.6%) disagreed or strongly disagreed that using illegal drugs is fun, while 66.6% agreed or strongly agreed that young persons should never try illegal drug. More than three quarters (78.9%)

believe that those who abuse drugs regret it later in life (Table 2).

Table 2: Distribution of respondents by their attitude towards drug abuse

| Issues about drug Abuse                            | Attitude   |            |           |            |            |
|----------------------------------------------------|------------|------------|-----------|------------|------------|
|                                                    | SA, N (%)  | A, N (%)   | H, N (%)  | D, N (%)   | SD, N (%)  |
| Using illegal drug can be pleasant                 | 48 (12.1)  | 41 (10.3)  | 76 (19.1) | 127 (31.9) | 106 (26.6) |
| A young person should never try illegal drug       | 125 (31.4) | 140 (35.2) | 30 (7.5)  | 55 (13.8)  | 48 (12.1)  |
| Using illegal drug is fun                          | 15 (3.8)   | 22 (5.5)   | 72 (18.1) | 152 (38.2) | 137 (34.4) |
| Schools should teach about drug abuse              | 160 (40.2) | 154 (38.7) | 27 (6.8)  | 32 (8.0)   | 25 (6.3)   |
| Illegal drugs helps people to experience full life | 33 (8.3)   | 65 (16.3)  | 54 (13.6) | 131 (32.9) | 115 (28.9) |
| People who abuse drug regret it later              | 123 (30.9) | 148 (37.2) | 53 (13.3) | 50 (12.6)  | 24 (6.0)   |
| Drug addicts have a bright future                  | 30 (7.5)   | 33 (8.3)   | 57 (14.3) | 161 (40.5) | 117 (29.4) |

SA= Strongly Agree, A= Agree, H = Hard to say, D = Disagree, SD = Strongly Disagree

Table 3: Relationship between respondents' awareness of drug abuse dangers and use of drugs to study

| Variable                       | Use of drug to study N (%) |            | Total, N (%) |
|--------------------------------|----------------------------|------------|--------------|
|                                | Yes                        | No         |              |
| Aware of dangers of drug abuse |                            |            |              |
| Yes                            | 29 (9.0)                   | 293 (91.0) | 322 (100)    |
| No                             | 12 (23.5)                  | 39 (76.5)  | 51 (100)     |
| Not sure                       | 2 (9.5)                    | 19 (90.5)  | 21 (100)     |

$\chi^2 = 9.6$  p value = 0.008

There was a significant association between awareness of dangers of drug abuse and the use of drugs to enhance studying. ( $\chi^2 = 9.6$ , df = 2, p=0.008). Those who were not aware of the dangers of drug abuse (23.5%) were more likely to use drugs while studying than those who were aware (9%) (Table 3).

Table 4: Relationship between respondents' parents' characteristics and respondents use of alcohol

| Variable                    | Use Alcohol, N (%) |            | Total, N (%) | p-value |
|-----------------------------|--------------------|------------|--------------|---------|
|                             | Yes                | No         |              |         |
| Parents/Guardian Occupation |                    |            |              |         |
| Professional                | 7 (4.9)            | 135 (95.1) | 142 (100)    | 0.05    |
| Skilled workers             | 1 (2.7)            | 36 (97.3)  | 37 (100)     |         |
| Semi/un-skilled             | 2 (0.9)            | 211 (99.1) | 213 (100)    |         |
| Marriage Setting            |                    |            |              | 0.03    |
| Monogamous                  | 5 (1.7)            | 287 (98.3) | 292 (100)    |         |
| Polygamous                  | 5 (5.6)            | 84 (94.4)  | 89 (100)     |         |

There was a marginal statistical association between parent's/guardian's occupation and the use of alcohol ( $\chi^2 = 5.46$ , p=0.05). Those whose parents/guardians



were professionals (4.9%) were more likely to use alcohol, compared to those whose parents/guardians were skilled (2.7%) and semi/un-skilled workers (0.9%). There was a significant association between the marriage setting and use of alcohol ( $\chi^2 = 4.07$ ,  $p=0.03$ ). Respondents from polygamous families were more likely to use alcohol (5.6%) than those from monogamous family (1.7%) (Table 4).

### Discussion

Only about half of the respondents (52.9%) knew the meaning of drug abuse to be using un-prescribed drugs while almost three quarters (70.4%) were aware of the legal status of drug abuse. This is similar to the result obtained from another study in Lagos where more than half of the respondents (86.5%) were aware of drug abuse. Majority of the respondents (81.4% ( $n=324$ )) were aware of the dangers of using drugs wrongly. The result is similar to the findings obtained from a study in Riyadh, Saudi Arabia where about 94% of the study sample indicated that smoking could cause serious illnesses but different from the one in China where majority of the respondents reported having little or no knowledge of drug-related harm. The level of knowledge (above average) obtained from this study could be because drug abuse education is one of the four new areas introduced in the new Science and Technology Basic Education Curriculum in Nigeria which was approved in year 2005<sup>11,12,13,14</sup>.

The attitudes of the respondents were conservative with regards to the use of illegal drugs. Almost three quarters (72.6%) disagreed or strongly disagreed that using illegal drugs is fun while 66.6% agreed or strongly agreed that young persons should never try illegal drug. More than three quarters (78.9%) believe that those who abuse drugs regret it later in life. These conservative and positive attitudes to drug abuse are in agreement with the finding from the Saudi study above where 88% of the respondents thought that smoking should be banned in public areas. Another study in Ibadan, Nigeria among two groups of students (Ojoo and Apata schools) also demonstrated high disapproval rates for tobacco use (75.8% and 76.5%) and for cocaine use (73.4% and 70.6%) respectively. Positive attitudes were shown by respondents towards acceptance of substances as only 6.3% and 10.6% of respondents from Ojoo and Apata schools, respectively, indicated willingness to accept substances, if offered. The positive attitude is most likely due to the improvement in knowledge as a result of introduction of drug abuse education to the basic education curriculum.<sup>14,15</sup>

Caffeine (Coffee) was the most common (53.5%) drug used among the respondents followed by painkillers/analgesic (19.1%), Indian hemp (3.5%), alcohol (2.5%) and cigarette (1.8%) in that order. Various factors might account for the widespread use

of psycho-stimulants (caffeine) by these Nigerian secondary school students. One reason is that caffeine containing substances (kolanut and coffee) are socially acceptable, cheap and readily available in the country. Secondly, students often use these substances during examination periods in order to keep awake late into the night to study (Caffeine is a central nervous system and metabolic stimulant). This finding is in consonance with findings from the Lagos study above where coffee was used by 43.1% of those who abused drugs, and another study where caffeine was the drug mostly used and its lifetime prevalence use was 85.7%<sup>13,11</sup>.

Painkillers/analgesics were next commonly used drug in this study. This is supported by another study where prevalence use of mild analgesics (73.8%) was next to caffeine and another one where paracetamol (an analgesic) was one of the commonly used drugs with a use prevalence of 41.5%. In a study in Nigeria, 'alabukun', a popular, locally manufactured analgesic (a mixture of acetyl salicylic acid and caffeine) was the most commonly reported drug.<sup>15,16,17</sup>

Alcohol, cigarette and Indian hemp not being as commonly used as caffeine may be because these drugs are usually used in mid to late adolescence as shown by other studies and may not be affordable to these younger adolescents (the mean age of the respondents in this study was  $13.8 \pm 1.9$  years). These findings agree with many other studies where the use prevalence of alcohol, cigarette and Indian hemp were lower than that of caffeine. Findings from studies in Rivers State, Nigeria and Zagreb, Croatia were incongruent with the finding of this study; in which case alcohol was the most commonly abused with use prevalence of 65%, 90%, and but use prevalence of kolanut which contains caffeine was next (63.1%).<sup>11,12,17,18</sup>

Most of the respondents used drugs daily (44%). This daily use may be an indication that though they were aware of the side effects of these drugs, their knowledge did not affect their practice. This finding is similar to that of Croatia and Lagos studies where 28% of the students smoked tobacco daily and 24.1% of students who abused drugs took it daily respectively.<sup>18,12</sup>

There was a significant association between awareness of dangers of drug abuse and the use of drugs to enhance studying. Those who were not aware of the dangers of drug abuse were more likely to use drugs to study than those who were aware of the dangers. This finding is similar to the result of another study where majority of the respondents who were drug dependent adolescents reported having little or no knowledge of drug-related harm<sup>13</sup>. The prevalence of alcohol, cigarette and Indian hemp use in this study was relatively low and in consonance with findings from previous studies; however the use of Indian hemp at all by students is of great concern. Its use is an unacceptable social behaviour in Nigeria. Society perceives it as harmful to health and also predisposes



the abusing individual to criminal activities such as armed robbery and sexual misconduct. The recorded low usage could be as a result of the fact that, adolescents are more willing to admit use of socially acceptable substances than the illicit ones. This low usage of alcohol, cigarette and Indian hemp is in agreement with the study conducted in Croatia.<sup>18</sup>

There was an association between the marriage setting and the use of alcohol. Those who come from polygamous family used more alcohol than others. This is in agreement with other studies where those who come from polygamous families used more drugs than those from monogamous families<sup>20,21</sup>. There was also a significant association between occupation of parents/guardians and the use of alcohol. Respondents who had professionals as parents or guardians used alcohol more than respondents whose parents or guardians were skilled and un-skilled workers. Though alcohol is usually available and can be obtained cheaply; the cheap type of alcohol may not be easily accessible in urban settings, hence the low use by those who were of lower socio-economic status. This is in contrast with other studies where the use of substances was associated with the lower socioeconomic strata<sup>21</sup>.

In this study, the predominant drugs used were mild stimulants and analgesics. The drugs used were linked positively to families and homes which may explain why peer group influence was minimal. However, studies have shown that the use of "socially" acceptable drugs may pave the way for the abuse of illicit ones. There may not be a high use of the illicit drugs as depicted by this study but it is worrisome that there is some form of use because there is a probability that the illicit drugs are being used but underreported. Moreover, these drugs are gateway drugs with the larger consequences being that they are more likely to use stronger ones later in life.<sup>15</sup>

In conclusion, the level of knowledge of the students concerning drug abuse was fair since more than 50% knew the meaning of drug abuse, the dangers in using drugs wrongly and the legal status of drug abuse. Many of the respondents had positive attitudes to using illegal drugs (58.5%). The drugs mostly used by the students were coffee and analgesics while Indian hemp, alcohol and cigarettes were abused sparingly.

Drug and alcohol education should therefore be strengthened in the curriculum of secondary schools. Drug abuse days should be observed in schools with the active participation of the students. Legislation guiding sales of drugs should be enforced and the National Agency For Food and Drugs Administration and Control (NAFDAC) should educate the public on and monitor the sales of drugs.

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