



Prevalence of Substance Abuse among Senior Secondary Students in Mainland Local Government, Lagos

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ABSTRACT

Background: Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. Use of drugs among adolescents is a global phenomenon eating deep into the fabrics of our society. Students are most vulnerable at this transformative stage in their life. Available report indicates that Nigeria is currently the highest consumer of cannabis and amphetamine in Africa. What is the prevalence of this abuse by students?

Methodology: This research was a cross sectional descriptive design to identify the prevalence of substance abuse among students in public senior secondary schools in Mainland Local Government, Lagos. A sample size of two hundred and sixty two was determined and used from randomly selected five out of the nine public schools identified. Multi stage sampling (including simple random and systematic sampling) and probability proportional to size methods were usefully employed in scientific selection of 262 samples and subsequent data collection in a total sample frame of 1,938 students. Self-administered questionnaire consisting of open and close-ended questions generated using research objectives was used in data collection.

Result: It identified that 19.5% had smoked cigarette once or more in their lifetime. 77.2% had used alcohol once or more in a life time while 7.7% used marijuana, 8.4% tranquilizers and 1.9% cocaine all in a life time respectively.

Conclusion: It recommended strict regulation of alcohol and tobacco products import and use in public places as well as aggressive dissemination of information on the dangers of substance use and abuse.

Keywords: Substance Abuse, Prevalence, Secondary School, Students, Drugs

INTRODUCTION

Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs.¹The use of these drugs among adolescents is a global phenomenon eating deep into the fabrics of our society. Senior Secondary Students are most vulnerable at this transformative stage of their lives and are often prone to dangers associated with lack of awareness on substance abuse.

Substance abuse, a public health and social problem has gradually become a cause for concern in Africa and indeed Nigeria. In Nigeria, the consumption of illegal drugs and the harmful use of other psychoactive substances such as alcohol, pharmaceutical drugs, inhalants and solvents have increased at an alarming rate over the years. Available report indicates that Nigeria is currently the highest consumer of cannabis and amphetamine in Africa.² In Nigeria the estimated lifetime

GJMEDPH 2014; Vol. 3, issue 6

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Conflict of Interest—none

Funding—none



consumption of cannabis among the population is 10.8%, followed by psychotropic substances like benzodiazepines and amphetamine-type stimulants (10.6%), heroin (1.6%) and cocaine (1.4%) in both urban and rural areas.⁴ The use of volatile organic solvents (0.53%) is widely spread among the street children, in-school youth and women. Multiple drug use happens nationwide (7.88%) to varying degrees.⁴ An analysis of the World Drug reports over a ten-year period (2001 – 2011) showed that the estimated annual prevalence of cannabis consumption among persons aged 15 to 65 years increased from about 8.7% to 14.3%; amphetamine consumption from 1.2% to 1.4% while cocaine and opiates increased from 1.0% and 0.3% respectively to 0.7%.^{2,3}

Increasing reports of methamphetamine seizures in South-West Asia and in Central Asia and Transcaucasia, as well as the illicit manufacture of the substance in some areas, are also leading to speculation that its use may also be on the increase in those sub-regions.⁵

Experts in Asian and African countries perceive that heroin use has increased in their regions, whereas the latest available data suggest that it is declining or stable in Europe while the use of synthetic opioids appears to be on the increase in these European countries.⁵

The use of illicit drugs frequently starts among schoolchildren during adolescence. Surveys in the United Kingdom indicate that 5-20% of school children use drugs, with 2-5% using them weekly and with peak prevalence at 14-16 years of age.⁶ In Trinidad and Tobago, the lifetime prevalence has been found to be 8% for marijuana use and 2% for cocaine use among secondary school children.⁶ In Barbados, 31% of admissions to the psychiatric hospital were linked to drug abuse, which was the second most common diagnosis; cocaine and marijuana were the most commonly abused illicit drugs.⁶

The abuse of drugs by adolescent schoolchildren is a global problem, and Jamaica is no exception. A survey of four high-schools in Jamaica found that

60% of children had tried one or more drugs, including marijuana, and 1.3% had used cocaine.⁶ In Jamaica, the use of marijuana is endemic, and is associated with various cultural and religious factors.⁶ In another survey in the United States of America (USA), marijuana was the most common illicit drug chosen by teenagers, and more than 50% of high-school seniors had used it, while 25% had used it in the month prior to the survey.⁶ In Ontario, Canada, 15.9% of high school students had used marijuana, and most users of any illicit drug had used it.⁶

From these studies, it shows that Marijuana is a global culprit. However, let us examine the empirical evidence from studies done in various secondary schools in Nigeria to identify the common substances of abuse among students. A study on the pattern of substance abuse among senior secondary school students in a southwestern city of Nigeria showed that the commonly abused substances were analgesics (46.7%), cannabis (16.7%), tobacco (14.3%) and inhalers (14.0%) while 8.3%, 7.4%, and 6.4% of the respondents were found to be using alcohol, sedatives and solvents respectively.⁷

In a similar study on students in River state, alcohol and tobacco/cigarette seemed to hit the peak as the commonly used substances.⁸ Another study in Lagos Nigeria on substance use among public secondary schools showed alcohol was the most common everused psychoactive substance (29.1%), followed by stimulants such as kola nut and coffee (23.3%).⁹ A leap up Northern Nigeria to have a picture of what evidence is available showed that 1% of students in Minna abused heroine, 17% alcohol, 22.5% cigarette, 14% kolanut and 11% cannabis.¹⁰

Most of these studies in Nigeria highlighted alcohol averagely as the most common substance of abuse among secondary school students. These findings seem equivocal considering the substance abuse trend currently in our society. Can it be assumed the students are not telling the truth of the story? Or those lots of figures are distorted?. What goes on globally seem to be different from what is happening here. Considering the cultivation and use of Marijuana in some coastal towns in Nigeria, Can we conclude these facts are real?



According to a United Nations Office on Drugs and Crime (UNODC) Report, some 200 million people, or 5 percent of the world's population aged 15 - 64 have used drugs at least once in the last 12 months – 15 million more than the previous year's estimate.¹¹ Likewise, according to the World Drug Report, the use of illicit drugs in all nations has increased in recent years.¹¹ The report goes on to note that the increasing availability of a variety of drugs to an ever widening socio-economic spectrum of consumers is disconcerting, although the main problem at the global level continues to be opiates (notably heroine) followed by cocaine. For most of Europe and Asia, opiates accounted for 62 percent of all drug treatment sought in 2003.¹¹ While 3.3 to 4.1 per cent of the global population admits to consuming drugs, the most worrisome trend for the UNODC Executive Director is the younger and younger ages at which people are becoming addicted.¹¹

This study which employs a descriptive design is to determine the prevalence of substance abuse among Senior Secondary School Students in Lagos Mainland Local Government.

METHODOLOGY

Study design

This was a cross sectional descriptive study to determine the prevalence of substance abuse among public senior secondary School students in Mainland Local Government, Lagos Nigeria. This study included all Senior Secondary 1 and 2 Students in public schools in Mainland Local Government. Senior secondary 3 Students were however excluded because at the time of this study, they had finished West African School Certificate Examinations and were out of school. There was a total target student population size of 5,791 from the nine schools in the area. A sampling frame of 1,938 students was identified from 3,671 students study population which was randomly selected in five out of the nine schools. Ethical approval was sought and approved by the Research and Ethics Committee of Lagos University Teaching Hospital (LUTH). Informed consent was obtained from heads of Schools and students. Confidentiality was also assured as no

personal identification information was included on the questionnaire.

Sample and sampling method

A sample size of 262 was determined using the formula for descriptive studies.¹² Multistage sampling method (simple random sampling, systematic sampling and proportionate to size sampling) was employed in the selection of these 262 respondents from the five public schools in a sampling frame of 1,938.

Data collection/Analysis

Self-administered questionnaire consisting of open and closed-ended questions generated using research objectives and from relevant literature review^{6-10, 13-16} was used for data collection. The questionnaire comprised questions ranging from how many occasions in a lifetime, annually, alcohol was taken and cigarette smoked to the use of other drugs like marijuana, cocaine, etc. Data entry and analysis was done using Epi-info version 3.5.1. and finally presented in tables.

RESULTS

Table 1 is the prevalence of cigarette smoking among senior secondary school students in Lagos mainland local Government. It showed a life time prevalence of 33(12.6%) for students who have smoked cigarette on 6 occasions and above and 18(6.9%) for those who have smoked on 3 to 5 occasions. It also showed an annual prevalence of 10(3.8%) for smoked cigarette on 6 occasions and above by respondents as well as 17(6.5%) and 33(11.8%) annual prevalence for 3 to 5 and 1 to 2 occasions respectively. Only 19(7.3%) respondents smoked cigarette on 1 to 2 occasions in the last 30 days.

Table 2 is the Prevalence of alcohol abuse among senior secondary school students in Lagos mainland Local Government. It showed a life time prevalence of 184(70.3%) for students who have had alcohol on 6 occasions and above and 18(6.9%) for those who have drunk on 3 to 5 occasions. It also showed an annual prevalence of 152(57.9%) for alcohol consumption on 6 occasions and above by respondents as well as 24(9.2%) prevalence for consumption on 3 to 5 occasions. Only 29(3.4%)



respondents had alcohol on 1 to 2 occasions in the last 30 days.

Table 3 is the Life time prevalence of drug abuse among senior secondary school students in Lagos mainland Local Government. It showed that 15(7.7%) has abused marijuana more than once in a life time while 22(8.4%) and 5(1.9%) respondents has abused

tranquilizers and cocaine respectively under same period.

Table 4 is the annual prevalence of drug abuse among senior secondary school students in Lagos mainland Local Government. It showed that marijuana abuse has an annual prevalence of 3(1.1%) among respondents.

Table 1 Prevalence of Cigarette Smoking among Senior Secondary Level Students in Lagos Mainland Local Government

On how many occasion have you smoked cigarette					Total
	0(%)	1-2(%)	3-5(%)	6 and above (%)	262
In your life time	211(80.5)	0(0)	18(6.9)	33(12.6)	262
During the last 12 months	204(77.9)	31(11.8)	17(6.5)	10(3.8)	262
During the last 30 days	243(92.7)	19(7.3)	0(0)	0(0)	262

This shows a 12.6% life prevalence of cigarette smoking on six or more occasions, annual prevalence

of 11.8% on 1-2 occasions and a month prevalence of 7.3% on 1-2 occasions.

Table 2 Prevalence of Alcohol Abuse among Senior Secondary Level Students in Lagos Mainland Local Government

On how many occasion have you had alcohol drink					Total
	0 (%)	1-2 (%)	3-5 (%)	6 and above (%)	262
In your life time	70 (26.7)	0 (0)	18 (6.9)	184 (70.3)	262
During the last 12 months	72 (27.5)	0 (0)	24 (9.2)	152 (57.9)	262
During the last 30 days	233 (88.9)	29 (3.4)	0 (0)	0 (0)	262

This shows a 70.3% life prevalence of alcohol abuse on six or more occasions, annual prevalence of 57.9%

on six or more occasions and a month prevalence of 3.4% on 1-2 occasions.



Table 3 Life Time Prevalence of Drug Abuse among Senior Secondary Level Students in Lagos Mainland Local Government

How many times in your life have you used any of the following drugs		
	0 (%)	1 and above (%)
Marijuanas	247 (94.3)	15 (7.7)
Tranquilizers or Sedatives	241 (92.0)	22 (8.4)
Amphetamines	262	0
Methamphetamines	262	0
Ecstasy	262	0
LSD	262	0
Other hallucinogens	262	0
Relevin	262	0
Crack	262	0
Cocaine	257 (98.1)	5 (1.9)
Heroin	262	0
Other opiates	262	0
Drug by injection with needle	262	0
Solvents or inhalants	262	0

This table shows a life time prevalence of marijuana, tranquilizers and cocaine abuse to be 7.7%, 8.4% and 1.9% respectively on one or more occasions of use.



Table 4 Annual Prevalence of Drug Abuse among Senior Secondary Level Students in Lagos Mainland Local Government

How many times in the last 12 months have you used any of the following drugs		
	0 (%)	1 and above (%)
Marijuanas	259 (98.9)	3 (1.1)
Tranquilizers or Sedatives	262	0
Amphetamines	262	0
Methamphetamines	262	0
Ecstasy	262	0
LSD	262	0
Other hallucinogens	262	0
Relevin	262	0
Crack	262	0
Cocaine	262	0
Heroin	262	0
Other opiates	262	0
Drug by injection with needle	262	0
Solvents or inhalants	262	0

This table shows an annual prevalence of marijuana abuse to be 1.1% on one or more occasions.

KEY POINTS

- (1) 19.5% live time prevalence of cigarette smoking among senior secondary students.
- (2) 77.2% live prevalence of alcohol consumption.
- (3) 7.7% and 8.4% live prevalence of marijuana and tranquilizers abuse respectively.
- (4) Continued increase in prevalence of abuse of these substances portends grave danger for young students and especially public health in combating non-communicable diseases.

Hence strict regulation of products import and use in public places as well as aggressive dissemination of information on the dangers of substance abuse is advised.

DISCUSSION/CONCLUSION

The prevalence of cigarette smoking among senior secondary school students in Lagos Mainland Local Government from this study, revealed cumulatively that fifty one respondents (19.5%) had smoked at least on 1 or more occasions in their life time, fifty eight respondents (22.1%) at least on 1 or more occasions in the last 12 months while only nineteen



respondents (7.3%) had done same in the last thirty days.

Alcohol abuse prevalence showed that two hundred and two respondents (77.2%) have had it on 1 or more occasions in their life time, one hundred and seventy six respondents (67.1%) on the same occasions in the last 12 months while twenty nine respondents (3.4%) had it only on 1-2 occasions in the last 30 days.

Comparatively a study in Rivers State⁸ showed some similarities in the findings of this study in terms of the high prevalence of alcohol/ tobacco use. While another study in Lagos still showed a lower alcohol prevalence of 29.1%⁹ in relation to this study, another one in Minna revealed even much lower prevalence of thirty four respondents (17%) abusing alcohol and forty five respondents (22.5%) cigarette.¹⁰

The prevalence of other substances abused showed that fifteen respondents (7.7%), had used marijuana once or more in their life time, three respondents(1.1%) used it at same number of times in the last twelve months. Tranquilizers have been used by twenty two respondents (8.4%) once or more in a life time and cocaine by five respondents (1.9%) at same number of times during same period. However it is pertinent to note that all the respondents claimed not to have tried any of the substances of abuse in the last twelve months except for marijuana which had three respondents (1.1%). This trend showed a drop in the prevalence over time. This could be attributed to many respondents having a feel of these substances of abuse once or more in a life time but later give up the act.

Comparatively a study done by the United Nations Office on Drugs and Crime in Nigeria (UNODC),⁴ showed that an estimated life time consumption of cannabis (marijuana) among the population is 10.8% which relatively is not far from 7.7% found in this study. According to the study by UNODC, other psychotropic substances like benzodiazepines, amphetamine-type stimulants make up 10.6%. This is also close to the 8.4% prevalence of the tranquilizers found in this study. It also showed heroin 1.6%, cocaine 1.4%, organic solvents (0.53%), however none

of the respondents in this study claimed to have taken any of those in their life time.

Cannabis still remains the world's most widely used illicit substance while amphetamine-type stimulants excluding ecstasy, remains the second only to cannabis.⁵ This study showed to certain extent a confirmation of this assertion even though tranquilizers or sedatives had more respondents than marijuana. Another claim by experts in Asia and Africa was that they perceived heroin use has increased in the regions.⁵ However, this study did not substantiate that as no respondent claimed to have taken the substance even in a life time. The life time prevalence of marijuana for secondary school children in Trinidad and Tobago is 8% and cocaine 2%.⁶ This prevalence is closely similar to that found in this study on marijuana(7.7%).

While this study has shown marijuana as one of the most illicit substances abused, this is in consonance with studies in Barbados where cocaine and marijuana together were the most commonly abused illicit drugs.⁶ Also 60% of children in Jamaican high school had tried one or more drugs including marijuana and 1.3% cocaine.⁶ In USA marijuana was the most common and 50% of high school seniors had used it while 25% had used it in the month prior to the survey.⁶ In Ontario, Canada 15.9% of high school students had used marijuana and most users of any illicit drugs there had also used it.⁶

Even though Cannabis appears to be worldwide in prevalence, the level of use and abuse varies from country to country. In Nigeria, a study in a southwestern city on patterns of substance abuse showed prevalence of abuse as cannabis (16.7%), alcohol (8.3%), tobacco(14.3%), sedatives (7.4%).⁷This showed a lower alcohol, tobacco and a higher cannabis prevalence in relation to findings of this study. However the prevalence of sedatives among respondents in both findings is closely similar.

In conclusion, the ministry of Education, Nigeria Drug Law Enforcement agency, Federal Ministry of health and other relevant organizations should be proactively empowered to develop and coordinate the use of free and accessible educational resources



in increasing learning and awareness on the different drug types and dangers of abuse or misuse. As a matter of fact, anti-drug use education should be incorporated into secondary school curriculum in Nigeria to help increase knowledge and curb the menace.

ACKNOWLEDGEMENT

Special thanks to Research and Ethics Committee of Lagos University Teaching Hospital (LUTH), Nigeria for ethical approval. And also to Lagos State Government education district IV for school entry approval. I wish to sincerely appreciate Professor E.E. Ekanem (Department of Community Health and Primary care, College of Medicine, University of Lagos), for finding time to guide me appropriately in this work.

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