



Prevalence of Drug and Alcohol Use among Undergraduate Medical Students in a Nigerian Private University

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Authors' contributions

This work was carried out in collaboration among all authors. Author OIO carried out the analysis and proofreading of the manuscript. Author TC performed the literature search and its analysis. Author AOA wrote the first draft of the manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Aim: This study was carried out to determine the prevalence of drug and alcohol use among medical students in a private University based in Abuja, Nigeria.

Study Design: A descriptive cross-sectional survey.

Place and Duration of Study: College of Health Sciences (CHS), Nile University of Nigeria, Abuja, between June 2018 and September 2018.

Methodology: Using a semi-structured, self-administered questionnaire, information was obtained from 49 second year medical students (11 males, 38 females; age range 17-25 years), who were surveyed for the prevalence and reason of drug and alcohol use. Data retrieved was sorted, collated and subjected to statistical analysis using SPSS version 23.0 statistical package.

Results: The mean age of students was 18.9 years and a higher proportion of respondents were female students (n=38; 77.6%). Out of the 49 students examined in this study, only 2 students currently use drugs while 8 students consume alcohol, given a prevalence of 4% and 16.3% respectively. Reasons given by one male alcohol user include: to build self-confidence (12.5%), while one female drug user uses it to escape from worries or troubles (50%). The prevalence of

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alcohol use was highest among male students (n=5; 62.5%), while that of drug use was highest among female students (n=2; 100%). Results also showed that the majorities of students were occasional users; and so there was no evidence of physical dependence.

Conclusion: Findings established low prevalence of drug and alcohol use among study groups. However evaluation of full-scale university-level intervention is highly necessary.

Keywords: Prevalence; drug use; alcohol use; medical students; Nigeria.

1. INTRODUCTION

The use of drugs by humans can be dated as far back as the onset of civilization, and has continued to pose a major health challenge globally especially among young people[1]. Nigeria is characterized with a principal population of youths [2] alongside a low level of human development capacity [3], which in turn pose negative impacts on her young persons. In Nigerian educational system, the use of drugs and alcohol by adolescents cuts across secondary school students and those of tertiary institutions which includes; college of education and technology, monotechnics, polytechnics and universities.

It has been widely reported that specific behaviours known to be risky to human health such as drug and alcohol use are markedly observed among University students [2]. This may not be unconnected to the assumption that this age group enjoys more liberty in making individual choices with regards their health behaviours and habits than sooner or later in life [2-4].

Drug use and alcohol consumption is associated with health and socio-economic implications through the state of intoxication (drunkenness), level of dependence (habitual, compulsive or long-term drinking) and various biochemical and physiological effects [5].

One of the primary causes for the increasing episodes of drug and alcohol use among young people in Nigeria and other developing countries is the social and economic hardship. Also, the general wellbeing and health of youths in resource-constrained countries has been negatively affected by globalization, thus raising drug and alcohol users or abusers [6-8].

The use of drugs and alcohol among adolescents is associated with negative effects such as increase in the rate of school dropout, unsafe sexual relationships, toxic psychosis, alongside

severe neuropsychiatric disorders [1,8]. Previous studies conducted in the last decade in Nigeria have confirmed young people as a significant category of people involved in the use of drug and alcohol. This study therefore aimed to determine the prevalence and reason for drug and alcohol use among undergraduate medical students in a Nigeria university based in Abuja, Federal Capital Territory, Nigeria.

2. METHODOLOGY

A descriptive cross-sectional survey was carried out among second year undergraduate medical students in Nile University of Nigeria, privately owned university based in Abuja.

Abuja is the capital city of Nigeria and is centrally located within the heart of the Federal Capital Territory (FCT). The population of the city currently stands at 6,000,000.

A multi stage sampling design was employed to pick participants. Interviews were carried out with randomly selected respondents using structured questionnaires. The questions centred on different sub-themes like socio-demographic information, prevalence of drug and alcohol use, reasons for use and perceived effect of drug and alcohol use among the respondents.

Questionnaire was constructed in English language and was self-administered. It was served after careful explanation of the purpose of the study alongside the criteria employed in selecting respondents. Permission to carry out the survey was officially requested and obtained from the University ethical review board. Informed verbal and written consent was obtained from all participants. The confidentiality of all information was strictly maintained all through the study.

The data retrieved was manually sorted out, collated and organized. It was then imputed into the computer system for statistical analysis using SPSS version 23.0 statistical package. Frequency tables were created for demographic

characteristics of the respondents. Qualitative variables were summarized by proportions. Statistical significance for association was tested using chi-square, with *P*-value less than 0.05 considered statistically significant.

3. RESULTS

A total of 49 records of second year undergraduate medical students from a private university in Abuja, Nigeria were available and analysed. The age range of the respondents was between 17-25 years, however majority of the respondents (91.8%) falls within the 17-20 years age group. Most of the respondents were unmarried (95.9%) whereas only 4.1% were married. The percentage of students who were Muslims is greater than Christians as shown in Table 1.

The prevalence of drug use among respondents vis-à-vis their age group and gender is shown in Table 2. Prevalence of drug use is low with 4.1% (n=2) among all respondents. All the 2 students who use drug were females; each of them is from the 17-20 years and 21-25 years age group.

Table 3 present the prevalence of alcohol use among the respondents. Prevalence of alcohol use is low among all the respondents (16.3%). All the 8 students that consume alcohol are found in the 17-20 years age group (17.8%). These users consist of 5 males and 3 females with a prevalence of 45.5% and 7.9% respectively.

In Table 4, the reasons why some of the respondents use drug and alcohol were presented. When asked the reason for using drug, 1 (50%) out of the 2 users stated that it is used to escape from worries or troubles. She also stated that she uses drug alone. However, for respondents who consume alcohol, 1 (12.5%)

out of the 8 users said that he uses alcohol to build self-confidence.

Table 1. Demographic characteristic of respondents

Age group	Frequency (N = 49)	Percentage
17 - 20	45	91.8
21 – 25	4	8.2
Gender		
Male	11	22.4
Female	38	77.6
Marital status		
Married	2	4.1
Single	47	95.9
Religion		
Christian	9	18.4
Muslim	40	81.6
Ethnicity		
Igbo	8	16.3
Hausa	38	77.6
Yoruba	3	6.1

Table 5 documents the possible impacts/effects of drug and alcohol use on the respondents. The table indicates that 10% of the substance users agreed that it makes their study life unhappy, jeopardizes their studies and somewhat affects their reputation respectively. A good number (10%) also said it helped them to escape from worries and build self-confidence respectively, while most of the respondents (50%) admitted it cause depressive feeling of remorse after use.

4. DISCUSSION

The importance of the availability of legitimate information on prevalence of drug and alcohol use for global public health policy cannot be over-emphasized. The findings of this study show that the prevalence of drug use and alcohol consumption among the respondents

Table 2. Prevalence of drug use among respondents

Category	Total Number (N = 49)	Drug users (N = 2)	Prevalence (%)	P value
Age group (years)				
17 - 20	45	1	2.2	<i>P</i> = .05
21 – 25	4	1	25	
Gender				
Male	11	0	0	<i>P</i> = .05
Female	38	2	52.6	

Table 3. Prevalence of alcohol use among respondents

Category	Total number (N = 49)	Alcohol users (N = 8)	Prevalence (%)	P value
Age group (years)				
17 - 20	45	8	17.8	P= .05
21 – 25	4	0	0	
Gender				
Male	11	5	45.5	P= .05
Female	38	3	7.9	

Table 4. Distribution of reasons for drug and alcohol use

Variables	Frequency	Percentage
Reason for drug use (N = 2)		
I use it to escape from worries or troubles	1	50
Reason for alcohol use (N = 8)		
I use it to build self-confidence	1	12.5

Table 5. Impacts/effects of drug and alcohol use among respondents

Effects	Frequency (N = 10)	Percentage
Makes your study life unhappy	1	10
Affects your reputation	1	10
Cause depressive feeling of remorse	5	50
Jeopardizes your academic/studies	1	10
Help to escape from worries or troubles	1	10
Help to build self-confidence	1	10

is 4.1% and 16.3% respectively. Data obtained from surveys and scientific reports from countries all over the world propose that there exist heavy drinking and smoking habits among young people; a trend that is diffusing from the developed to the developing nations [9].

A notable proportion of secondary school and university surveys in Nigeria have reported that drug and alcohol use is rampant among students, with many having their first exposure in family settings and at a tender age [1,5,6,8]. A study carried out in Ilorin, Nigeria showed that the most commonly used drugs among adolescents consists of alcohol and mild stimulants [1], and this agrees with earlier studies [10,11].

Findings from this study reveal that majority of the respondents who consumes alcohol were initiated at a tender age of 17 to 20 years. Earlier studies emphasize that the age at which you are exposed to drug or alcohol use is crucial. The earlier the age of initiation to alcohol consumption or drug use, the more susceptible they are to becoming alcohol or drug dependent

later in life [12]. Another event associated with people exposed to drug and alcohol use in their teenage years is occasional experiences of alcohol-related unplanned injuries and accidents (including falls, burns, drowning, auto accidents), as compared to those who start at a later age [13].

Furthermore, few individuals are known to have been exposed to alcohol and drug use by their family members, friends, and peer groups, as established in a report published by WHO's European Regional Office which figured that about 4.5 million young people are living with families seriously affected by alcohol and substance use [14]. Young people from such families may be faced with problems ranging from neglect, high risks of physical and sexual assaults, instability in the homes and marriages and a weak family finances. These problems may subject these young individuals to great risks of building-up anti-social conducts, emotional and educational problems [15].

There is an established relationship that exists between the volume of substance use and the susceptibility to the risks of health complications

associated with substance consumption. A cumulative amount of alcohol or drug use consumed over duration of a year is a strong predictor of many chronic illnesses. Also worthy of note is that, the pattern of substance use: occasional or regular, can also influence the level of risks of injuries and of infection of specific transmittable diseases. Substance use is likely to have a more immediate and grievous consequences on young people because they possess a muscle mass that is smaller than that seen in adults [16].

Though evidences concerning the direct effect of drug and alcohol use on the physical growth of young people are scanty, there are pointers that profound use of drugs and alcohol at a young age is a strong indicator to variable physical and psychosocial problems. Prolonged and uninterrupted use of drugs and alcohol may portend severe health challenges in young people and children [17].

In order to mitigate these disturbing health-threatening behaviours among students in our tertiary institutions of learning, there is urgent need to establish targeted health awareness programmes. This may take the form of seminars, rallies, crusades, workshops, guidance and counselling services and conferences which will be held at the school premises. In addition, for the above strategies to be effective; there is need to develop new line of targeted actions to help collectively fight this irruption.

5. CONCLUSION

In conclusion, our findings established low prevalence of drug (4.1%) and alcohol use (16.3%) among the undergraduate medical students. However evaluation of full-scale university-level intervention is highly necessary.

It is therefore recommended that public health intervention aimed at preventing drug and alcohol use among students should be designed to raise awareness about its negative impacts on students' health and academic performance, and the socioeconomic consequences in Nigeria.

CONSENT

All authors declare that written informed consent was obtained from the respondents for publication of this study.

ETHICAL APPROVAL

All authors hereby declare that all experiments have been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Abdulkarim AA, Mokuolu OA, Adeniyi A. Drug use among adolescents in Ilorin, Nigeria. *Trop Doct.* 2005;35(4):225-28.
2. Chu JJ, Jahn HJ, Khan MH, Kraemer A. Alcohol consumption among university students: A Sino-German comparison demonstrates a much lower consumption of alcohol in Chinese students. *J Health Popul Nutr.* 2016;35(1):25-35.
3. Strunin L, Díaz-Martínez LR, Díaz-Martínez A, Heeren T, Winter M, Kuranz S, et al. Drinking Patterns and Victimization among Male and Female Students in Mexico. *Alcohol Alcohol.* 2015;50(2):226-35.
4. Scholz A, Navarrete-Muñoz EM, Garcia de la Hera M, Gimenez-Monzo D, Gonzalez-Palacios S, Valera-Gran D, et al. Alcohol consumption and Mediterranean Diet adherence among health science students in Spain: the DiSA-UMH Study. *Gac Sanit.* 2016;30(2):126-32.
5. Chikere EI, Mayowa MO. Prevalence and perceived health effect of alcohol use among male undergraduate students in Owerri, South-East Nigeria: A descriptive cross-sectional study. *BMC Public Health.* 2011;11(1):118-23.
6. Atilola O, Ayinde O, Adeitan O. Beyond prevalence and pattern: problematic extent of alcohol and substance use among adolescents in Ibadan South-west Nigeria. *Afr Health Sci.* 2013;13(3):777-84.
7. Mohan D, Arora A. Prevalence and pattern of drug abuse among Delhi University College students. *J Indian Med Assoc.* 1976;66(2):28-33.
8. Gana GJ, Idris SH, Sabitu K, Oche MO, Abubakar AA, Nguku PM. Prevalence and perception of cigarette smoking among out of school adolescents in Birnin Kebbi,

- North-western Nigeria. Pan Afr Med J. 2018;30(1).
(Accessed 11 August 2019)
Available:<http://www.panafrican-medjournal.com/content/article/30/304/full/>
9. Edwards GP, Anderson TF, Babor S, Casswell R, Ferrence N, Giesbrecht C, Godfrey et al. Alcohol policy and the public good. Oxford University Press; 1994.
 10. Fawibe A, Shittu A. Prevalence and characteristics of cigarette smokers among undergraduates of the University of Ilorin, Nigeria. Niger J Clin Pract. 2011;14(2): 201-05.
 11. Shehu AU, Idris SH. Marijuana smoking among secondary school students in Zaria, Nigeria: Factors responsible and effects on academic performance. Ann Afr Med. 2008;7(4):175-79.
 12. Grant BF, Dawson DA. Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: results from the National Longitudinal Alcohol Epidemiologic Survey. J Subst Abuse. 1997;9(1):103-10.
 13. Hingson RW, Heeren T, Jamanka A, Howland J: Age of drinking onset and unintentional injury involvement after drinking. J Am Med Assoc. 2000;284(12): 1527-33.
 14. Eurocare C. Alcohol problems in the family: A report to the European Union. World Health Organization Europe, England; 1998.
 15. Velleman R, Templeton L: Alcohol, drugs and the family: results from a long-running research programme within the UK. Eur Addict Res. 2003;9:103-12.
 16. WHO World Health Report: Management of substance abuse: Alcohol. Geneva; 2009.
(Accessed 10 August 2019)
Available: <http://www.who.org>
 17. Aarons GA, Brown SA, Coe MT, Myers MG, Garland AE: Adolescent alcohol and drug abuse and health. J Adolesc Health. 1999;24(6):412-21.

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