# DRUG AND SUBSTANCE ABUSE AMONG COMMUNITY HEALTH TRAINEES: IMPLICATIONS FOR PRIMARY HEALTH CARE DELIVERY IN NIGERIA.

# Bassey PE1\*, Aniekpeno U1

<sup>1</sup>Public Health Department, University of Calabar, Calabar, Cross River State, Nigeria.

\*Correspondence: Philip Etabee Bassey; +234 805 644 6816; pembassey@yahoo.com

# Abstract

**Background:** The harmful use of psychoactive substances including alcohol and illicit drugs, is a global public health issue that promotes anti-social behaviours and vices particularly among youths.

**Objective:** To determine the prevalence and determinants of drugs/substance abuse among the students of the College of Health Technology, Calabar, Cross River State, Nigeria and its possible effect on health care delivery in the State.

**Materials and Method:** A cross-sectional descriptive study was conducted between January and March 2016 using a self-administered questionnaire to obtain information on the use of drugs/substances among 176 randomly selected students. Data was analysed using the SPSS version 20 software.

**Results:** The mean age of the respondent was 22 years; 41(23.3%) were males while (135)76.7% were females. 20(48.8%) and 46(34.1%) of the males and females respectively have used drugs/substances. Alcohol was the most commonly abused substance; used either singly (53%) or in combination with other substances (21.2%).

**Conclusion:** Colleges/Schools of health technology were established to train community health workers. These healthcare professionals are indispensable to the Nigerian healthcare system. They are the first-line primary healthcare (PHC) service providers. The abuse of drugs/substances among students of the schools of health technology therefore poses a serious threat to the development of the human resource for PHC delivery in Nigeria. Owing to the dearth of studies on the involvement of these cadre of students in drug use, our study brings to the fore an overlooked public health issue with dire implications for PHC delivery in Nigeria.

Keywords: Drugs, Substance, Drug-abuse, Addiction.

**Cite this article:** Bassey PE, Aniekpeno U. Drug and substance abuse among community health trainees: implications for primary health care delivery in Nigeria. Yen Med J. 2021;3(1):47–58.

# INTRODUCTION

The Nigerian health care delivery system is a three-tiered system, organized and managed at the Primary, Secondary and Tertiary levels of governance. Primary Health Care is managed by the Local Government, while Secondary Care and Tertiary Care are managed by the State and Federal Governments respectively. Each of the tiers of health care governance have assigned roles in health policy formulation, implementation and monitoring in line with the National Health Policy.<sup>1</sup>

Primary Health Care (PHC) is the fulcrum of the Nigerian health system, being the first contact for care in the national health care system and the one closest to majority of Nigerians who live in rural communities. Thus, the PHC system facilitates access to basic interventions that address health needs at the community level, particularly: maternal, newborn, and child health (MNCH) services provided at the PHC facilities.<sup>2</sup>

Community health workers (CHWs) in Nigeria have been categorised into three main cadres: Community Health Officers (CHOs), Community Health Extension Workers (CHEWs) and Junior Community Health Extension Workers (JCHEWs).<sup>2</sup> All the cadres of CHWs undergo professional training in the various Schools of Health Technology in the country, where they are exposed to both theoretical and practical training in various aspects of community health, and on completion of their training are certified by their respective examination board and are

eligible to be absorbed into the health care industry to bridge the health manpower gap especially at the local government level.

A World Health Organization (WHO) report on Human Resource for Health (HRH) in countries with HRH crisis, has reported that Nigeria has the largest number of human resources for health in Africa.3 In spite of this human resource capacity, the country is still ranked among the 57 countries with HRH crisis. This is because the current densities of health professionals like doctors, nurses and midwives which stand at 1.95 per 1,000, is considered too low for the effective delivery of essential health services. The situation is further compounded by the migration of these critical health care human resource to foreign countries. Moreover, there is an inadequate production of these health workforce; while those who are available are inequitably distributed within the country, with many of them employed in the urban cities and towns where only about 30% of the population live.<sup>3</sup>

With a current estimated population of 198 million according to the National population commission (NPC),<sup>4</sup> the health workforce needs for the country has far outstripped the available human resource for health, particularly at the primary health care level, where over 70% of the population reside. The density of community health workers who are mostly needed at the primary health care level is estimated to be 0.65 per 10,000 populations.<sup>3</sup> This is abysmally low and could put the existing workforce under undue stress.

The paucity of CHWs who are the critical human resource for health that are needed for the effective delivery of PHC services, underscores the need to safeguard the existing low pool of CHWs by reducing their attrition through vices such as drug abuse. Student CHWs in training, undergoing training in the various Schools/Colleges of Health Technology in Nigeria, are the potential pool of CHWs to replace those CHWs who have retired from service or are indisposed.

Drugs/substance abuse which has become a pervasive global public health problem particularly among the youth,

is a major threat to the realization of the laudable goal of building the much-needed workforce to bridge the human resource needs gap in Nigeria. Drug abuse or substance use disorder among health professionals, particularly the harmful use of alcohol, if not checked, is capable of stealthily depleting the workforce and undermining the capacity of the health system to deliver efficient, effective and qualitative care.<sup>5</sup>

Drug abuse in Nigeria is on the increase especially in the adult population. Data from a 2018 National Bureau of Statistics (NBS) national survey of drugs and substance abuse has shown that the prevalence of drug abuse in Nigeria increased from an average of 5.6% in 2016 to about 15% in 2018, involving about 14.3 million people. Drugs/substance use has assumed a worrisome dimension, having evolved over the years to become a major social malaise involving not only the adult population but also adolescents and youths in the country.

The consequences of the harmful use of drugs are however not restricted to the youth alone, particularly students in secondary and tertiary institutions but it affects people of all ages; who are impacted directly or indirectly by the harmful consequences of drug abuse and addiction. Drugs/substance abuse does not only harm the abuser, it also has societal, national and global implications. The adverse societal effect of these psychoactive substances is evidenced by poor academic performance, school drop outs, antisocial behaviours and crime. <sup>7-9</sup>

Despite the various mass media awareness campaigns being disseminated by the Ministry of Health as well as the National Drug Law Endowment Agency about the risks of drug abuse, the problem has persisted among both out of school, 10,11 and in-school youths, 12,13 in Nigeria, including students in health-related training institutions. 14,15

In view of the fact that CHWs in training constitute an indispensable potential workforce to be harnessed upon their graduation from the various schools of health technology across the country to bridge the existing primary health care health workforce needs-gap of the country especially in the rural communities where about

70% of the citizenry reside; it is imperative that the quality of first line health personnel being trained and sent out to manage health care delivery at the primary care level should be physically, mentally and emotionally fit to deliver the required services.

# **Research questions**

To guide the study, the following research questions were formulated:

- 1. What is the prevalence of drugs/substance abuse among the students in the College of Health Technology, Calabar?
- 2. What is the gender difference in the prevalence of drugs/substance abuse in the study area?
- 3. What are the most commonly abused drugs/substances?
- 4. What are the factors associated with abuse of drugs/substance among students in the study area?
- 5. What are the students' perceived effects of drugs/substance abuse?

### Statement of the problem

The abuse of drugs/substances by students of tertiary institutions appears to be an increasing social problem with wide spread consequences affecting all facets of society. Although several studies have been conducted to examine substance use among medical students in Nigeria, there is a paucity of studies assessing the abuse of drugs/substance among first line health care workers such as nurses /midwifes and community health workers, and particularly community health workers in training in Nigeria.

The involvement of practicing health care professionals or the trainees (students) in the abuse of psychoactive drugs, apart from having a deleterious effect on the abusers, also put the patients, the public and indeed the entire society at risk, and poses a serious threat to effective and efficient health care delivery. It is against this backdrop of the harmful personal and adverse social consequences of drug abuse that this research was conducted to identify the prevalence and determinants of drug/substance use among

students in the College of Health Technology, Calabar, with a view to provide guidance for policies to curb the problem.

# MATERIALS AND METHOD Study setting

The study area was the College of Health Technology, Calabar, in Cross River State of Nigeria. It is located in the South-South geo-political zone of Nigeria. The school is a health training institution with a mandate to train middle-level health manpower for the delivery of primary health care

### Study design

The study was a cross-sectional descriptive design involving the use of a self-administered questionnaire to elicit information on drugs/substance abuse and the determinant factors among students in the College of Health Technology, Calabar.

# **Study population**

The study population consisted of about 1,584 students in different years of enrolment that were undergoing their studies in the College of Health Technology, Calabar, at the time of the study, out of which a random sample of 190 students were selected for the survey.

#### Sample size determination

The sample size for this study was determined using the Bluman's formula<sup>16</sup>; as shown below:

$$n = pq \left(\frac{z_{\alpha/2}}{e}\right)^2$$
 , Bluman (2007)

Where p = prevalence of drug use (0.33)

q = non-use prevalence (0.67)

$$z_{\alpha/2} = 1.96$$

e = margin of error (0.07)

Thus; n = 
$$(0.33) (0.67) \times (1.96/0.07)2$$
  
=  $0.2211 \times 784$   
=  $173.3 \approx 173$ 

n = 190 (10% added for non-response)

### Sampling procedure

A multistage sampling method was used to select the departments and classes of the students for the study. The first stage involved the random selection of two departments out of six existing departments. The selection of the classes was next. Since the students spend on average three academic sessions for their programme, we applied a purposive sampling technique to select second year class; based on the assumption that first year students were freshmen and may not have spent enough time to engage in drug abuse. The second-year students had spent at least one year in school and were easily accessible. The third-year students were preoccupied with preparations for their examinations and were less inclined to participate in The third stage was the selection of the respondents. A systematic sampling approach was applied to select the respondents from a line-list of all second-year students in the two selected departments.

# Instrument for data collection

The research instrument for this study was a pretested and validated structured questionnaire consisting of 21 items grouped into three sections: A, B and C. Section A elicited information on socio-demographic characteristics; Section

B comprised information on perception of drug/substance abuse; while Section C was to obtain information on drug/substance use.

# Method of data analysis

The data was analysed as descriptive statistics using IBM SPSS Statistics version 20. The result was presented as percentages in tables and figures.

# **RESULTS**

# **Demographic Characteristics**

A total of 176 (92.6%) out of the 190 questionnaires distributed were retrieved for analysis giving a response rate of 92.6%. Of the 176 respondents, 41 (23.3%) were males while 135 (76.7%) were females. The mean age of the respondents was 22 years. Majority of the subject 102 (58%) were aged 20-24 years; 46 (26.1%) of the respondents were aged 15-19 years; 21 (11.9%) were in the 25-29 years age bracket, 4 (2.3%) were aged 30-34 years, 2 (1.1%) were in the 35-39 years age category, while only 1 person (0.6%) was over 40 years. Most respondents, 90.9% (160/176) were single, 8.0% (14/176) were married and 1.1% (2/176) were divorced/separated. 96 respondents (54.5%) stay in the college hostel while 80 (45.5%) reside off campus. See Table 1.

Table 1 Demographic characteristics of respondents.

Characteristics	<b>Number of Respondents</b>	Percentage
Gender		
Male	41	23.3%
Female	135	76.7%
Total	176	100%
Age		
15 – 19	46	26.1%
20 - 24	102	58.0%
25 - 29	21	11.9%
30 - 34	4	2.3%
35 – 39	2	1.1%
40 and above	1	0.6%
Total	176	100%
Marital Status		
Single	160	90.9%
Married	14	8.0%
Divorced/Separated	2	1.1%

Total	176	100%
Residence		
Hostel	96	54.5%
Off campus	80	45.5%
Total	176	100%

# Drugs/substances abused by the respondents

As shown in Table 2, 66 (37.5%) of the 176 respondents had used one or more drugs/substances in their life-time. Of the 41 male respondents, 20 (48.8%) were current users

of one form of drug or another, while 46 (34.1%) out of the 135 female respondents were current users of drugs/substances.

Table 2 Distribution of drug/substance abuse by gender.

Gender	Users	Non-users	Total
Male			
No. of respondents	20	21	41
% within gender	48.8%	51.2%	100%
Female			
No. of respondents	46	89	135
% within gender	34.1%	65.9%	100%
Total			
No. of respondents	66	110	176
Total %	37.5%	62.5%	100%

#### Age at initiation of drug/substance abuse

The proportions and ages of drugs initiation by the students are as follows: 22.7% (15/66) started drug use

before attaining the age of 13 years, 57.6% (38/66) fell within the 13 - 18 years age bracket, while 19.7% (13/66) initiated drug use between 19 - 25 years. See Table 3.

Table 3. Age at first usage of drug/substance.

Age categories	Number	Percentage (%)
Under 13 years	15	22.7%
13 – 18 years	38	57.6%
19 – 25 years	13	19.7%
Total	66	100%

# Distribution of respondents according to the commonly abused drug/substance

The proportions of the 66 respondents in the survey who have abused drugs/substances and the type of drugs abused are as follows: 53% (35/66) were abusing alcohol, 12.1%.

(8/66) prescription drugs, 6.1% (4/66) marijuana, 4.5% (3/66) nicotine, 1.5% (1/66) cocaine; while 21.2% (14/66) were taking a combination of alcohol and other substances such as codeine. See Table 4.

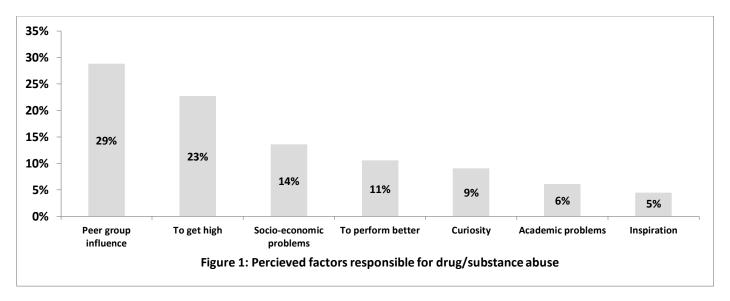
Table 4. Distribution of respondents according to most commonly abused drugs/substances.

Type of drug/substance abused	No. of respondents	Percentage (%)
Alcohol	35	53.0%
Nicotine	3	4.5%
Cocaine	1	1.5%
Marijuana	4	6.1%
Prescription drugs	8	12.1%
Alcohol & Codeine	2	3.0%
Alcohol & Nicotine	2	3.0%
Alcohol & Cocaine	1	1.5%
Alcohol & Marijuana	2	3.0%
Alcohol, Marijuana & Prescription drugs	1	1.5%
Alcohol & Prescription drugs	1	1.5%
Cocaine & Codeine	6	9.1%
Total	66	100%

# Respondents perception of reasons for engaging in drugs/substances abuse

On their perception about the factors responsible for their involvement with drugs/substances abuse, the results showed that peer group influence was highest 28.8%

(19/66), the desire to feel high 22.7% (15/66), socio-economic problems 13.6% (9/66), to enhance their academic performance 10.6% (7/66), curiosity 9.1% (6/66), academic difficulties 6.1% (4/66), and to gain inspiration 4.5% (3/66). See Figure 1.



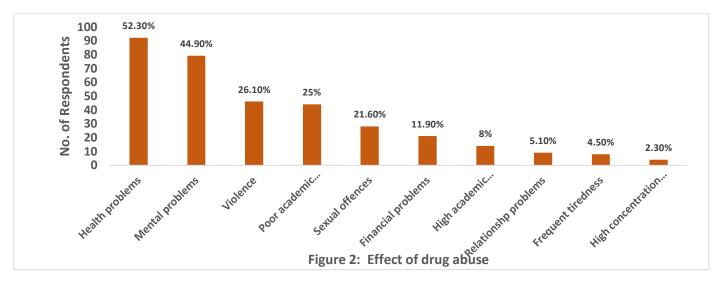
# Perceived effects of drug/substance abuse.

Majority 52.3% (92/176) of the respondents admitted that drug/substance abuse could result in undesirable health problems; 44.9% (79/176) indicated mental problems,

26.1% (46/176) said drug abuse could result in violence, while 25.0% (44/176) indicated poor academic performance. Other effects of drug abuse suggested, included: sexual offences, 21.6% (38/176); financial

problems, 11.9% (21/176); high academic performance, 8.0% (14/176); problems with relationships, 5.1% (9/176);

frequent tiredness, 4.5% (8/176) and high levels of concentration, 2.3% (4/176). See Figure 2.



#### **DISCUSSION**

Human resource for health is a critical component of a health system and the quality of health care providers is also a sine qua non for effective and efficient health service delivery. Community health workers (CHWs) are an indispensable component of the Nigerian health care system and the schools of health technology are important training institutions for grooming these cadre of health professionals to provide the much-needed health care services at the primary health care level.

To the best of our knowledge no study has been carried out to assess drugs/substance abuse among students in schools or colleges of health technology in Nigeria, undergoing training to become community health workers. Previous studies of drug abuse among health care professionals undergoing training or internship in Nigeria have focused primarily on medical and pharmacy students in tertiary institutions. <sup>14,17,18</sup>

The dearth of studies on the involvement of CHWs in training in drugs and substance abuse, was the rationale for undertaking this study to determine drugs/substance abuse among these critical human resource for health and how their abuse of drugs/substances can impact negatively on the effective and sustainable delivery of primary health care services in Nigeria.

The findings of our study showed that the lifetime prevalence of any drug use among our respondents was 37.5%. The reported lifetime prevalence of drug abuse among medical students in tertiary institutions reported by Ihezue<sup>17</sup>, Makanjuola et al.<sup>18</sup> and Babalola et al.<sup>14</sup>, respectively was 56%, 78% and 65%. Umukoro et al.<sup>19</sup>, in their study among non-medical students of tertiary institutions in Abeokuta, Ogun State, Nigeria, obtained a lifetime prevalence of drug abuse of 69.2%.

The lifetime prevalence of drug use among our subjects is lower than the figures recorded among the medical students, probably because the social and academic contexts of our subjects are different from their medical students' counterparts. It is however generally believed that health professionals in training are confronted with heavy workloads which puts lots of pressure on the student, thereby making them resort to stimulants to cope with the stress of studies as alluded to by Omokhodion et al.<sup>20</sup>, Babalola et al.<sup>14</sup>, and Everson.<sup>21</sup>

Alcohol was the most commonly abused drug among our study subjects with a current prevalence of 53%. This figure is higher than the 40.4% prevalence found among medical students by Makanjuola et al. <sup>18</sup>, It is however slightly lower than the findings by Ihezue<sup>17</sup>, and Babalola

et al.<sup>14</sup>, who obtained current prevalence of alcohol abuse among medical students of 63.4% and 60% respectively.

As shown in Table 4, our study found that alcohol was used either singly or in combination with marijuana and nicotine. The prevalence of alcohol/marijuana and alcohol/nicotine was of 3.0% respectively. This abuse of alcohol with other substances was also reported by Oshikoya et al. <sup>22</sup>, Makanjuola et al. <sup>18</sup>, and Essien <sup>23</sup>, who in their various studies found alcohol, marijuana and nicotine as the most prevalent drugs/substances that are abused together by students.

The abuse of alcohol by students is common, largely because it is easily available and affordable. Moreover, alcohol has the paradoxical effect of acting as an initial stimulant by eliciting a sense of feeling high some minutes after being consumed; but later producing a low or down feeling, thereby acting as a depressant. It is therefore an easily available drug for the relief of either academic, social or economic stress by students facing stressful situations.

Abusers of alcohol, often lose sight of the fact that alcohol as a drug of abuse has both short- and long-term physical, mental and psychological effects. The physical effects of alcohol include alcoholic hepatitis and fibrosis<sup>24,25</sup> as well as raised blood pressure that could result in stroke. <sup>26,27</sup> The mental effects include: poor concentration, loss of coordination and critical judgement, and dementia while the psychological effects include: depression and withdrawal<sup>28</sup>. Additionally, the behavioural effects may include: decreased inhibitions and risky sexual behaviors.<sup>29</sup>

Marijuana is another substance that is equally abused by the youth in Nigeria. The prevalence of current use of marijuana among the respondents in our study group was 6.1%. This is lower than the 11% current usage of cannabis among medical students reported by both Ihezue, <sup>17</sup> and Babalola et al. <sup>14</sup>. Fatoye, <sup>30</sup> in a study of drug abuse among undergraduates of the University of Ile Ife in South West Nigeria, reported a current prevalence of cannabis use of 8.2%, while Uchendu et al. <sup>8</sup> reported a current prevalence of 9.0%.

The relatively low current prevalence of cannabis among students may be the result of under reporting. This be attributable to the fact that cannabis is classified as an illicit drug and its use has been criminalized by the National drug law enforcement agency (NDLEA) act of 2004.<sup>31</sup> The common harmful effects of cannabis include; alteration of the state of consciousness, disorientation, impaired coordination and concentration, anxiety, panic attacks, toxic psychosis and hallucinations.<sup>32</sup>

The abuse of prescription drugs is considered to be a major public health problem in Nigeria. Until recently, before Nigeria prohibited the over-the-counter sale of codeine and tramadol without due prescription, these two addictive drugs were the most commonly abused prescription drugs in Nigeria. The abuse of psychoactive prescription drugs especially by health care professionals is another dimension of this national malady and a serious issue of concern. This is particularly so because health professionals who ought to know better are among the abusers. Moreover, they have easy access to these drugs.

Tramadol, a synthetic opioid analgesic is used to treat moderate to severe pain; however, an overdose of it can cause cramps, arrhythmias, cramps, coma and death. Tramadol use disorder is known to be associated with compulsive behaviour. Codeine on the other hand is also an opioid pain killer; and is a component of several codeine-based cough syrups. The abuse of codeine products can result in severe health outcomes such as peptic ulcers, liver damage, respiratory depression, coma and death, and more importantly, the concurrent abuse of codeine with alcohol increases the risk of adverse outcomes.<sup>33</sup>

In our study, the prevalence of current abuse of prescription drugs by our respondents was 12.1%; and the commonly abused prescription drugs were codeine and steroids. About 2 (3.0%) of the subjects have used codeine in combination with alcohol, while 6 (9.1%) of them combined cocaine with codeine. In a similar study by Akande-Sholabi et al.<sup>15</sup>, that was conducted among a combined number of 520 medical and pharmacy students in a Nigeria university, about 34.2% (178/520) of the

respondents in multiple responses had generally used opioid-containing medications. Among these 171 respondents, 96.1% (171/178) of them have used formulations that contained codeine as cough syrup 95.3% (163 /178) and 4.7% (8 /178) of them as non-cough syrup formulations.

Various reasons have been adduced from previous studies about why students engage in drug or substances abuse. Some of the reasons include relief from stress and the need to stay awake and alert at night to study.<sup>34</sup> The reasons given by our respondents for engaging in drug abuse in our study included: peer group influence (28.8%), the desire to get high (22.7%), socio-economic problems (13.6%), the desire to perform better (10.6%), curiosity (9.1%), academic problems (6.1), and the desire be inspired (4.5%). It is worth pointing out, even health professionals have the erroneous belief that drugs can enhance academic performance. In actual fact the drug abuse has been found to reduce academic performance.

The age of initiation of drugs by our respondents is worthy of note. Majority, 57.6% of the students abusing drugs/substances reported that they initiated drug/substance abuse as teenagers, within the 13-18 years age bracket. A similar result was obtained by Babalola et al. <sup>14</sup>. In their study conducted among medical students. The researchers found that most of their respondents were first exposed to drug use as teenagers, between the ages 15 and 18 years.

Umukoro et al. 19 in their study among tertiary students in a university in Abeokuta, Ogun State, Nigeria, showed that a 39.7% of the respondents got involved with drugs while in secondary school, while about 16.5% them started using drugs when they entered the university. In a related study by Eze et al. 35 among undergraduates in the University of Abuja, located in the Federal Capital City of Nigeria, the researchers reported that about 34.7% of their respondents had their first drink of alcohol between the ages of 11 and 18 years.

The evidences from these studies point to the fact that most abusers of drugs / substances in the tertiary institutions started using drugs/substances as adolescents while in the

secondary school. The adolescence period is one of the most vital developmental phases in life during which the adolescents grows and develops in the physical, mental, cognitive, emotional and social domains<sup>36</sup>. It is also the period in young people tend to experiment with new behaviours, practices or lifestyles, whether good or bad.

The adolescents, are often oblivious of the adverse consequences of their experimentation with negative habits or lifestyles. They are unaware that engaging in risky or deleterious behaviours can impair their holistic development and functionality in the five aforementioned critical developmental domains, thereby affecting their well-being and hindering them from becoming responsible adults

This period of adolescents is also where the pull of peer pressure is quite strong and the adolescent is more prone to yield to peer pressure. Our findings showed that majority (57.5%) of our studied sample got involved with drugs as teenagers and that 29% of them got involved as a result of peer group pressure.

The result of a related study on drug abuse by Adeyemo et al.<sup>37</sup> among university students in Benin City, Nigeria, indicated that peer pressure played a predominant role in the abuse of drugs by the students.

Majority of those surveyed agreed that (always or occasionally) their friends encouraged them to take: Coffee (66.9%); Alcohol (66.7%); Cigarette (57.1%); and Marijuana (52.2%). There is therefore need for school-based counselling on drug-abuse prevention even at the secondary level to obviate the effect of peer pressure in drug initiation.

### CONCLUSION

Drug abuse by healthcare providers affects not only the individuals physical and psychosocial well-being, but can also impact negatively on the job performance. Health care professionals who abuse drugs/substances are more liable to commit errors in the administering of medications that can cause serious health harm to patients. They have a higher tendency for employee absenteeism, decreased concentration, poor judgement, low productivity, and are prone to workplace accidents and injuries as well as

increased susceptibility to illness. They are also predisposed to the pilfering of patients' medications and other illegal activities at work.<sup>27</sup>

The implication is that instead of adding value to the health system they would become liabilities. Therefore, the abuse of drugs/ substances by community health workers in training poses a great drawback to the national goal of bridging the human resource for health gap, particularly at the primary health care level. and improving access to qualitative and efficient PHC service delivery at the grassroots level.

# RECOMMENDATIONS

There is need to address drugs/substance abuse among students in the College of Health Technology, Calabar with special regard to alcohol, cannabis and prescription drugs, through targeted behaviour change interventions, so as to mitigate the short- and long-term physical, health, and psycho-social effects of drug abuse on the abusers and their families. Moreover, since drug abuse is a national public health issue, there would be need to conduct similar studies in other schools of health technology across Nigeria to be able to determine the prevalence of drug abuse and the substances abused. This study is equally a call for the government to take urgent proactive preventive measures to reduce the increasing rate of drug abuse in the country among our youth in the various health training institutions in Nigeria who are the potential health workforce for the future.

# LIMITATIONS OF THE STUDY

This was a cross sectional study, that is dependent on the sincerity of the participants in responding to the survey as truthfully as possible. Some students involved in the use of illicit drugs out of fear of being indicted by the law may not disclose information on the use of drugs/substances such as cocaine and marijuana.

# POLICY IMPLICATIONS FOR DRUG ABUSE PREVENTION IN HEALTH TRAINING INSTITUTIONS

The menace of drug abuse among the students of our schools of health technology poses a serious threat to the effective delivery of the much-desired goal of ensuring equitable and qualitative universal health care. To the best of our knowledge, this is the first study in the country that has examined drug/substance abuse among community health trainees or students in a School of Health Technology in Nigeria. This research has generated information on the prevalence of drug/substance abuse among students in the College of Health Technology, Calabar.

The findings can serve as basis for future assessments and provision of necessary ameliorative interventions. It could serve as baseline information for future research within the college or for similar studies in other tertiary institutions. Furthermore, the findings of this study could be applied in designing interventions to curb drug/substance abuse and mitigate its effects in similar institutions in the country.

#### **AUTHORS' CONTRIBUTION**

Both authors participated in the data collection, cleaning, analysis and writing of the manuscript.

#### SOURCE OF FUNDING

None.

#### REFERENCES

- Federal Ministry of Health, Nigeria National Health Policy. Promoting the Health of Nigerians to Accelerate Socio-economic Development. 2016. Available from: https://naca.gov.ng/wp-content/uploads/2019/10/National-Health-Policy-Final-copy.pdf Accessed December 30, 2020.
- 2. Dirisu O, Akinola A, Okereke E, Unumeri G, Suleiman I, Jibril A, et al. 2019. "An assessment of human resources for health hiring, deployment and retention, procedures and practices in Cross river and Bauchi states, Nigeria". Human Resources for Health (HRH) Project: Population Council. Available from: https://knowledgecommons.popcouncil.org/departm ents sbsr-rh/530/ Accessed December 30, 2020
- World Health Organization. Global Health Workforce Statistics Update Geneva: WHO; 2018. Available from: https://www.who.int/data/gho/data/indicators. Accessed July 15, 2020.

- National Population Commission, Nigeria. Nigeria's population now 198 million 2020. Available from: https://www.premiumtimesng.com/news/topnews/264781-nigerias-population-now-198-millionnpc.html. Accessed May 12, 2020.
- 5. World Health Assembly Resolution. Public health problems caused by harmful use of alcohol, WHA58.26 2005. Available from: https://www.who.int/substance\_abuse/wha58\_26\_en.pdf?ua=1. Accessed May 20, 2020.
- National Bureau of Statistics. A national survey has confirmed the massive scale of Nigeria's drug problem 2018. Available from: https://qz.com/africa/1538843/nigeria-drug-abuse-14-million-adults-use-drugs/. Accessed June 18, 2020.
- 7. Ekpo M, Adelekan M, Inem A, Agomoh A, Agboh S, Doherty A. Lagos "area boys and girls" in rehabilitation: Their substance use and psychosocial profiles. East Afr Med J. 1995;72:311-316.
- 8. Uchendu UI, Ukonu OI. Effect of Substance Use on Academic Performance among Undergraduate Students In The University Of Abuja, Nigeria. J Res Humanities Soc Sci. 2016;4(3):62-71.
- 9. Dankano E, Garba MJ. Drug Abuse and its Effects on Academic Performance of Secondary School Student in Bali Local Govt. Area of Taraba State, Nigeria. Taraba St Univ J Sociol. 2017;2(2):117-126.
- Isah NA, Usman AK. Drug Abuse, Youth Violence and Social Order: A Study of Petroleum Hawkers in Minna, Niger State, Nigeria. Bangladesh e J Sociol. 2012;9(2):95-100.
- 11. Jamilu YR, Dantsoho FA. Prevalence of Substance Abuse, Assessment of Socio-economic and Demographic Determinants of Commercial Motorcyclists in Katsina State Nigeria. Afr J Health Sci. 2020;33(1):49-55.

- 12. Oliha JA. Adolescent and drug abuse in tertiary institution implication for counselling. British J Edu. 2014;2(1):1-9.
- 13. Obiechina GO, Isiguzo BC. Curbing the menace of drug use among secondary school students in Nigeria. European J Res Reflect Edu Sci. 2016.4(1):53-64.
- 14. Babalola E, Akinhanmi A, Ogunwale A. Who guards the guards: Drug use pattern among medical students in a Nigerian University? Ann Med Health Sci Res. 2014;4:397-403.
- 15. Akande-Sholabi W, Adisa R, Ilesanmi O, Bello A. Extent of misuse and dependence of codeine-containing products among medical and pharmacy students in a Nigerian University. BMC Public Health. 2019;19(1709):1-8.
- Bluman A. Elementary Statistics: A Step by Step Approach. 7th ed. New York: McGraw – Hill; 2007.
- 17. Ihezue U. Drug abuse among medical students at a Nigerian university: Part 1. Prevalence and pattern of use. J Natl Med Assoc. 1988;80(1):81-85.
- 18. Makanjuola A, Daramola T, Obembe A. Psychoactive substance use among medical students in a Nigerian university. World Psychiatry. 2007;6(2):112-114.
- 19. Umukoro OL, Taiwo A, Maroh I, Mofoluwake M. Prevalence and Patterns of Drug Abuse among Students of Tertiary Institutions in Abeokuta, Ogun State. Nigeria, Int J Psychiatry. 2016;1(1):1-6.
- 20. Omokhodion F, Gureje O. Psychosocial problems of clinical students in the University of Ibadan Medical School. Afr J Med Med Sci. 2003;32:55-58.
- 21. Everson K. How Stress and Anxiety Give Rise to Drug Abuse in College 2015. Available from: https://www.addictionhope.com/mood-disorder/panic-attacks/how-stress-and-anxiety-give-rise-to-drug-abuse-in-college/. Accessed August 10, 2020

- 22. Oshikoya KA, Alli A. Perception of Drug Abuse Amongst Nigerian Undergraduates. World J Medical Sci. 2006;1(2):133-139.
- 23. Essien C. Drug use and abuse among students in tertiary institutions the case of federal university of technology, Minna. Journal of research in national development. 2010;8 (1):1-10.
- 24. National Institute of Health, USA. Alcoholic liver disease: National Library of Medicine; 2020. Available from: https://medlineplus.gov/ency/article/000281.htm. Accessed June 15,2020.
- 25. Center for Disease Control, Liver cancer. 2019.

  Available from:

  https://www.cdc.gov/cancer/liver/index.htm.

  Accessed July 12, 2020.
- 26. National Institute on Alcohol Abuse and Alcoholism, USA. Alcohol's Effects on the Body. 2020. Available from: https://www.niaaa.nih.gov/alcohols-effects-health/alcohols-effects-body. Accessed July 15, 2020.
- 27. Piano M. Alcohol's Effects on the Cardiovascular System. Alcohol Res. 2017;38(2):219-241.
- 28. Shivani R, Goldsmith JR, Anthenelli RM. Alcoholism and Psychiatric Disorders. Alcohol Res Health. 2002;26(2):90-98.
- 29. Obot IS, Ibanga A. Selling Booze; Alcohol Marketing in Nigeria. Valencia: The Globe; 2002.2:6-10.
- 30. Fatoye F. Substance use Among University Undergraduates: A Study of Pattern and Beliefs in Ile-Ife. Niger Postgrad Med J. 2007;14(1):37-41.
- 31. Nigeria Drug Law Enforcement Agency Act. 2004. Available from: https://www.unodc.org/documents/nigeria/Drugresponse/NDCMP\_book\_1706152.pdf Accessed December 30, 2020.

- 32. Natioanl Intitute of Drug Administration, USA. What are marijuana's effects? 2020. Available from: https://www.drugabuse.gov/publications/research-reports/marijuana/what-are-marijuana-effects. Accessed July 18, 2020.
- 33. Mojisola CA. 2018. The Problem of Drugs/Substance abuse in Nigeria: A Symposium by the Director General, National Agency for Food and Drug Administration and Control (NAFDAC). 2018. University of Benin, Benin City, Nigeria. Available from: https://www.nafdac.gov.ng/the-problem-of-drugs-substance-abuse-in-nigeria-a-symposium-by-professor-mojisola-christianah-adeyeye-director-general-nafdac-at-the-university-of-benin-benincity/ Accessed December 30, 2020.
- 34. Oshodi Y, Aina O, Onajole A. Substance use among secondary school students in an urban setting in Nigeria: Prevalence and associated factors. Afr J Psychiatry. 2010;13(1):52-57.
- 35. Eze C, Uzoeghe U. Alcohol Use Among Full-Time Students of the University of Abuja. Int J Emerg Ment Health. 2015;17(1):283-87.
- 36. Firdevs S, Özlem T, Ebru IF. Risky behaviors of adolescents: Definitions and prevention. Adv Psychol Res. 2015:106:1-34.
- 37. Adeyemo F, Ohaeri B, Okpala P, Oghale O. Prevalence of drug abuse amongst university students in Benin City, Nigeria. J Public Health Res. 2016;6(2):31-37.
- 38. Bush D, Lipari R. Substance Use and Substance Use Disorder by Industry. In: The CBHSQ Report. Rockville (MD): Substance Abuse and Mental Health Services Administration (US). 2015, April 16. Available from: https://www.samhsa.gov/data/sites/default/files/report\_1959/ShortReport-1959.pdf. Accessed July 20, 2020.