

# Prevalence and Impacts of Psychoactive Substance Abuse amongst Undergraduate University Students in Katsina State, Nigeria

Yusuf Hassan Wada<sup>1</sup>, Garba M. Khalid<sup>2</sup>, Zayyanu Shitu<sup>3</sup>, Umar Idris Ibrahim<sup>4</sup>

## Original Article

### Abstract

**Background:** Drug and substance abuse among university students is of public health concern and is becoming a global threat to the education system. This is more devastating to the academic performance of the addicts. The present study aims to assess the prevalence and impacts of psychoactive substance abuse among the university undergraduate students in Katsina State, Nigeria, and to determine the effects of such abuses on the students' academic performance.

**Methods:** A cross-sectional study was conducted using online survey tool (Google Form) validated by content validity and pilot study. The hyperlink to the online survey tool was shared with undergraduate students from three universities located in Katsina State via emails and social media platforms, namely WhatsApp, Facebook, and Twitter. Data collected from eligible participants were analyzed using descriptive statistics.

**Findings:** A total of 308 students from the three universities returned the online questionnaire, of which 67.2% were men and 32.8% were women. Among the respondents, 37% admitted practicing drug and/or substance abuse. Majority of them (56.2%) were third-year students in the age range of 20-25 years.

**Conclusion:** Drug and substance abuse among the undergraduate university students in Katsina State is common, and it cuts across both male and female students. Concerted efforts towards parental support and supervisions, social intervention programs, and campus-based prevention and supported programs against drug and substance abuse should be encouraged.

**Keywords:** Substance-related disorders; Students; Nigeria

**Citation:** Wada YH, Khalid GM, Shitu Z, Ibrahim UI. **Prevalence and Impacts of Psychoactive Substance Abuse amongst Undergraduate University Students in Katsina State, Nigeria.** *Addict Health* 2021; 13(4): 221-31.

Received: 19.05.2021

Accepted: 25.07.2021

1- Faculty of Pharmaceutical Sciences, Usmanu Danfodiyo University, Sokoto, Nigeria AND West African Academy of Public Health, Abuja, Nigeria

2- Department of Pharmaceutics and Pharmaceutical Technology, Bayero University, Kano, Nigeria

3- Medecins Sans Frontieres Operation Center Barcelona and Athens. Shinkafi Project, Zamfara State, Nigeria

4- Department of Clinical Pharmacy and Pharmacy Practice, Bayero University, Kano, Nigeria

Correspondence to: Yusuf Hassan Wada; School of Pharmaceutical Sciences, Usmanu Danfodiyo University, Sokoto, Nigeria AND West African Academy of Public Health, Abuja, Nigeria; Email: hasawa2011@gmail.com

## Introduction

Youths remain the bedrock of any society. Indeed, the future of any progressive society depends largely on the productivity of its youths. Hence, their background and upbringing, education, and literacy level, as well as social life need to be carefully monitored to ensure they live a healthy and productive life. Neglecting these processes in the youths can negatively affect their lives and subsequently lead to deterioration of the society at large. Parents, government, and the community leaders have a pivotal role to play in ensuring an industrious upbringing of the youths, ensuring that they get acquainted with the right peers and develop positive social attitudes.

In Nigeria, the prevalence of drug abuse accounts for about 14.4% or 14.3 million people aged between 15 and 64 years, which is comparatively high in comparison to the global annual prevalence of 5.6%.<sup>1</sup> This has been the most important factor contributing to many social vices, mostly among the youth with the highest level of any past drug use among those aged 25-59 years.<sup>1</sup> Students play an important role in the social and economic development programs and management of community; paying attention to their issues in different dimensions, particularly their mental aspect should not be neglected.<sup>2</sup> Of the estimated 14.4% prevalence of people who use drug, our study center, Katsina, Nigeria, accounts for an estimated prevalence of 12% of most drug types is high among young people within the age range of 25 and 39 years.<sup>1</sup> It is one of the reasons why we are undertaking this study to investigate the prevalence of drug abuse amongst students which are predominantly youths.

In this modern world with its very limited excuse for failure, it has become common to identify certain youths at risk of failing to succeed in life because of the hardships in their early adult lives. Poverty and unemployment, violence, family conflict, and illness represent a few potential vulnerabilities affecting the youths indulged in drug and substance abuse.<sup>3</sup> Drug and substance abuse begins with acquisition or initiation of drug and/or substance in vulnerable individuals, especially youths who eventually progress through phases of increased consumption until an individual is addicted.<sup>4</sup> Drug and substance addiction among the youths is one of the prominent pressing societal problems

affecting many countries across the globe including Nigeria.<sup>2</sup> Drug and/or substance abuse is an attempt to escape from reality and it is associated with several factors including dissatisfaction with the social, political, and especially economic situation, unemployment, and peer pressure among many others.<sup>1</sup> In response to the above seemingly grim picture, only a small number of addicts are ready for treatment or rehabilitation.<sup>5</sup> Studies have divulged that substance abuse among young populations is more prevalent than other age groups.<sup>6</sup> Drug and substances are used conversely; a drug is referred to a medicine prescribed by a certified medical practitioner to treat an underlined medical condition, while a substance may include anything other than drug that could modify perception, mood, cognition, behaviour, or motor functions when taken by an individual. A drug or substance is considered abused if it is deliberately used to induce physiological or psychological effects for a purpose other than therapeutic purposes. The youths of today suffered from negative consequences of drug and substance abuse such as absconding from school, poor academic performance, mental deficits, and negative sexual outcomes among others.<sup>7</sup>

Nigeria is the most populated country in Africa with over 190 million people; this figure positioned Nigeria as the 7<sup>th</sup> most populous country in the world.<sup>8,9</sup> Indeed, nearly about 70% of Nigeria population are young adults below the age of 35 years.<sup>10</sup> Therefore, this underscores the importance of the youths for the future of the country. Unfortunately, over the past few years, there is a rapid proliferation of drug and substance abuse, particularly among youths in their early adulthood in Nigeria.<sup>11,12</sup> Katsina State is one of the northern states with alarming rates of drug and substance abuse. Indeed, the trend cuts across all genders. Recently, the menace has been amplified in the northern part of Nigeria, and peer-reviewed literature on such issues is very scanty. In addition, the extent to which the undergraduate university students are involved in the menace is not known. Therefore, this study aims to: (I) assess the prevalence of drug and substance abuse amongst undergraduate university students in Katsina State, (II) investigate the level of awareness on the effect of drug and substance abuse among the students,

and (III) determine the impact of such abuses on students' academic performance.

## Methods

**Study design:** The study was designed into two phases (I and II). Phase I is the development of the data collection tool, and phase II is the application of the data collection tool.

### Phase I: Development of data collection tool

A web-based questionnaire was developed and discussed with the panel of experts. The data collection tool was divided into three sections; first the socio-demographic information of the students, and second and third were related to awareness and consequences of drug and substance abuse, respectively. The survey tool was made up of closed-ended and open-ended items. The draft tool was then tested for validity using face validity and pilot study.

**Face validity:** Face validation was performed to test whether the tool appeared to measure prevalence of drug and substance abuse amongst undergraduate university students. The choice of wordings and the flow of the items. The draft tool was tested by some selected students and an expert panel consisting of four pharmacists with experience in research. The panel evaluated the tool in terms of readability, clarity, and flow to ensure that the items are appropriate for the target participants. The students were asked to comment on any section that was ambiguous or difficult to comprehend.

**Pilot study:** Pilot study was conducted to measure how the respondents understood and responded to draft tool. The draft tool was administered to 15 undergraduate university students selected using purposive sampling. The students were drawn from the 3 selected universities in Katsina State. An online survey tool was created in form of a Google Survey. The hyperlink to the survey tool was shared with the selected students via WhatsApp. The responses were analyzed accordingly; result was not shown. The draft tool was revised based on the result of the pilot study and finalized.

### Phase II: Application of the data collection tool

**Online survey:** A cross-sectional study design (online survey) was conducted among undergraduate university students in Katsina State. The hyperlink to the online survey was shared via social media among the students in

particular, WhatsApp, Facebook, and Twitter. The survey was conducted from March to July 2019. Reminders were sent intermittently to increase response rate. Responding to the survey was reported in the tool as an implied consent.

**Study setting:** The study was conducted among undergraduate university students in Katsina State. The universities included two public universities, Federal University, Dutsin-Ma, Katsina, Umaru Musa Yar'adua University, Katsina, and one private university, Al-Qalam University, Katsina.

Federal University, Dutsin-Ma, is located in Dutsin-Ma Local Government Area of Katsina State, which is located in the north-western region of Nigeria, bordering Niger Republic, Kaduna, Kano, and Jigawa States, and was established in 2010. It has about 1754 students across three faculties of 21 departments.<sup>13</sup>

Umaru Musa Yar'adua University, formerly known as Katsina State University, was established under the Katsina State Law No.7 of September, 2006, with currently about 10000 students across five faculties of 21 departments.<sup>14</sup>

Al-Qalam University, formerly known as Katsina University, is the first private Islamic University in Nigeria which was established in 2005 and awards undergraduate/post-graduate degree programs under four colleges.<sup>15</sup>

**Study population and sampling:** Purposive sampling method was adopted for the selection of the study participants. Purposive sampling has been reported for an online survey.<sup>16,17</sup> Students who used social media in particular WhatsApp, Facebook, and Twitter were targeted. Inclusion criteria were: (I) registered students who were studying at year one up to year six in various courses in the three universities selected, (II) students re-sitting and spill over were also included. Exclusion criteria were: (I) students of higher institutions other than universities in the state, (II) students at postgraduate levels, and (III) pre-degree students. Eligible participants were recruited through presidents of their associations and class representatives. Data obtained were extracted using Microsoft Excel (version 16). It was later rearranged on SPSS software (version 24, IBM Corporation, Armonk, NY, USA).

Analysis of the data was conducted using SPSS. The socio-demographics of the students, prevalence of drug and substance abuse, and its

awareness among the undergraduate students in Katsina State, were presented in frequencies and percentages. All variables were categorical; hence, no variable was presented in mean and standard deviation (SD). To determine the impact of such abuses on students' academic performance, some of the related variables were analyzed using Pearson's chi-square test to determine the statistical significance of the drug and substance abuse among the students to the selected variables. Variables with P-value less than 0.05 (typically  $\leq 0.05$ ) were considered statistically significant.

**Ethical considerations:** Ethical approvals were obtained from the Katsina State Ministry of Health (Health Research Ethical Review Committee) (MCH/ADM/SUB/1152/1/271), and the various ethical committees of the three universities involved in the study. In addition, permission to share the online survey form was obtained from the presidents of the different student associations and class representatives of each level. Moreover, the online questionnaire conveyed the study information, and a statement that participation was exclusively voluntary.

## Results

A total of 308 students from the three universities in Katsina State, completed and submitted the online questionnaire. Most responses were obtained from Umaru Musa Yar'adua University with 39.9% with the least being Al-Qalam University with 29.20%. Majority of the respondents (37.0%) were third-level students, with the least being sixth-level students (6.0%). There were more male respondents than female ones (67.2% vs. 32.8%); most of them were single. Most of the respondents were between the age of 20 and 25 years and very few of them were above 35 years. A higher proportion of them came from a monogamous family (67.2%) with family size ranging between 6 and 10 in number (Table 1).

### Drug and substance abuse and its awareness among the students

The drug and substance abuse among the cumulative or all students was found to be common with the prevalence rate of 37%. Of the total respondents, 80% have been in the system of substance abuse for less than 4 years at the period of data collection. Most of them claimed that they were introduced by peer groups or friends before gaining admission into the university. The university environment had no influence in their

initiation to the drug or substance abuse (Table 2).

**Table 1.** Socio-demographic characteristics of students from the three universities in Katsina State, Nigeria (n = 308)

Variables	n (%)
Universities in Katsina	
Al-Qalam University	90 (29.2)
Federal University Dutsin-Ma	95 (30.8)
Umaru Musa Yar'adua University	123 (39.9)
Level of study	
1	37 (12.0)
2	82 (26.6)
3	114 (37.0)
4	68 (22.1)
5	5 (1.6)
6	2 (6.0)
Age of students (year)	
< 20	80 (26.0)
20-25	173 (56.2)
26-30	40 (13.0)
31-35	12 (3.9)
> 35	3 (1.0)
Gender	
Women	101 (32.8)
Men	207 (67.2)
Marital status	
Married	46 (14.9)
Single	262 (85.1)
Type of family	
Monogamy	207 (67.2)
Polygamy	101 (32.8)
Size of family	
< 5	96 (31.2)
6-10	105 (34.1)
11-15	62 (20.1)
16-20	32 (10.4)
> 20	13 (4.2)

Highest proportion of the students claimed to have previous information about drug and substance abuse (59.7%). In addition, most of them believed that drug and substance abuse campaign had positive impact. Moreover, many students believed that drug or substance abuse increased intelligence (45.5%). Most of the students started abusing drugs and/or substances out of curiosity (69.8%) and frustration (69.8%) (Table 2).

### Most commonly-abused drugs and substances among the students

According to the operational definitions in the current study, tobacco and cannabis were the most commonly-abused substances among the students, 14.0% and 13.3%, respectively (Table 3).

**Table 2.** Prevalence and awareness of drug and substance abuse among students (n = 308)

Variables	n (%)
Drug or substance abuse	
Yes	114 (37.0)
No	185 (60.1)
Not sure	7 (2.3)
Duration of drug or substance abuse (year)	
< 4	80 (26.0)
4-5	32 (10.4)
> 6	7 (2.3)
Cause of abuse	
Boyfriend	14 (4.5)
Girlfriend	6 (1.9)
Peer friends	60 (19.5)
Family member	28 (9.1)
Initiation of abuse	
After university admission	54 (17.5)
Before university admission	239 (77.6)
Not sure	15 (4.9)
Influence of university environment	
Yes	65 (21.1)
No	216 (70.1)
Not sure	26 (8.4)
Drug or substances taken for non-medical use	
Yes	57 (18.5)
No	237 (76.9)
Not sure	12 (3.9)
Previous information on drug or substance abuse	
Yes	184 (59.7)
No	98 (31.8)
Not sure	26 (8.4)
Effect of drug or substance abuse campaign	
Yes	257 (83.4)
No	51 (16.6)
Drug/substance abuse increases intelligence	
Yes	140 (45.5)
No	100 (32.5)
Maybe	68 (22.0)
Drug/substance abuse due to curiosity	
Yes	215 (69.8)
No	46 (14.9)
Maybe	47 (15.3)
Drug/substance abuse due to frustration	
Yes	213 (69.2)
No	53 (17.2)
Maybe	42 (13.6)
Drug/substance abuse due to peer-group influence and pressure	
Yes	280 (90.9)
No	12 (3.9)
Maybe	16 (5.2)

These substances were more frequently used among male students compared to female ones. Coffee and inhalants were the least abused substances, and there was no report on volatile agent abuse among female students. For drugs, cough syrups were the most commonly abused (14.7%), which female students abused the most compared to male ones (21.7% vs. 11.3%). Codeine was the second most abused drug among

the students (9.1%), which the abuse cut across both genders.

Tranquilizers were also commonly abused among the students (5.2%) as well as antibiotics and pain killers (19.6% and 13.3%, respectively). **Factors associated with drug and substance abuse among the students**

Table 4 shows the variables associated with drug and substance abuse among the respondents.

**Table 3.** Most commonly-abused drugs and substances among the students (n = 286)

Variables	Male [n (%)]	Female [n (%)]	Total [n (%)]
Tobacco (all forms: cigarette, Vaporizer, snuff, chewable)	38 (19.6)	2 (2.2)	40 (14.0)
Cannabis	34 (17.5)	4 (4.3)	38 (13.3)
Cough syrup (without codeine)	22 (11.3)	20 (21.7)	42 (14.7)
Sleeping pills (tranquilizers)	5 (2.6)	10 (10.9)	15 (5.2)
Codeine (all forms)	18 (9.3)	8 (8.7)	26 (9.1)
Pain killers	12 (6.2)	26 (8.3)	38 (13.3)
Inhalants	3 (1.6)	-	3 (1.0)
Coffee	16 (8.2)	12 (13.0)	28 (9.8)
Antibiotics	46 (23.7)	10 (10.9)	56 (19.6)
Total	194 (100)	92 (100)	286 (100)

Indeed, the academic performance of the students, class attendance, students' information, and belief on

the menace were all found to be associated with drug and substance abuse among the students ( $P < 0.050$ ).

**Table 4.** Statistical comparison between students involved in drug and substance abuse and variables associated with the abuse practice (n = 308)

Variable	n (%)	P*
University in Katsina		
Al-Qalam University	90 (29.2)	0.015
Federal University Dutsin-Ma	95 (30.8)	
Umaru Musa Yar'adua University	123 (39.9)	
Level of study		
1	37 (12.0)	0.670
2	82 (26.6)	
3	114 (37.0)	
4	68 (22.1)	
5	5 (1.6)	
6	2 (6.0)	
Type of family		
Monogamy	207 (67.2)	0.790
Polygamy	101 (32.8)	
Size of family		
< 5	96 (31.2)	0.570
6-10	105 (34.1)	
11-15	62 (20.1)	
16-20	32 (10.4)	
> 20	13 (4.2)	
Ages of students (year)		
< 20	80 (26.0)	0.550
20-25	173 (56.2)	
26-30	40 (13.0)	
31-35	12 (3.9)	
> 35	3 (1.0)	
Academic performance		
Excellent	7 (2.3)	< 0.001
Very good	12 (3.9)	
Good	92 (29.9)	
Not sure	45 (14.6)	
Poor	152 (49.4)	
Class attendance		
Excellent	10 (3.3)	< 0.001
Very good	7 (2.3)	
Good	111 (36.0)	
Not sure	36 (11.7)	
Poor	142 (46.1)	
Increased intelligence		
Yes	140 (45.5)	0.001
No	100 (32.5)	
Maybe	68 (22.0)	
Drug abuse information		
Yes	184 (54.7)	0.032
No	98 (31.8)	
Maybe	26 (11.7)	

\*Chi-square goodness of fit

Of the students who abused drug and/or substance, 49.4% were thought to have poor academic performance; only 2.3% of the drug abusers were thought to have excellent academic record. 10 respondents (3.3%) claimed to have excellent class attendance, while 46.1% had poor class attendance. Those variables involved in the Pearson's chi-square analysis with P-value > 0.05 were not statistically significant.

## Discussion

Drug and substance abuse is known to be contributor to many risk behaviors and a myriad of undesirable outcomes, such as mental and physical health complications, suicide, traffic accidents, injuries, and social violence. Perhaps a relationship between violence including social vices and the consumption of psychoactive substances has been established.<sup>18</sup> Using substances like marijuana, alcohol, and various types of stimulants among youths is associated with risky and unhealthy sexual behaviors and outcomes such as multiple sexual partners, high prevalence of human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) and other sexually-transmitted infections (STIs), and high rate of teenage pregnancies, which consequently, expose them to high risk of morbidity and mortality at early age.<sup>7,19</sup> Therefore, it is imperative to understand the nature and consequences of drug and substance abuse among undergraduate university students if meaningful and effective preventive and/or treatment measures are to be proposed.

In the present study, we found that drug and substance abuse was common among the undergraduate university students from the three universities in Katsina State (37.0%). The figure was higher than those reported for undergraduate students of Ahmadu Bello University, Nigeria (25.7%), even though their findings involved only one university and perhaps only three faculties,<sup>20</sup> in contrast to our study setting which involved three different universities and without discrimination with respect to the students' faculty. Possibly, our finding was slightly lower than those reported for undergraduate students of university of Benin in Southern Nigeria (46.6%),<sup>21</sup> and undergraduate medical students of the University of Nigeria (56.0%).<sup>22</sup> The lower figure with respect to the two aforementioned

universities could as well be related to the fact that their respective studies reported only one university each, while in our case, three universities are reported and the high prevalence of drug and substance abuse from one university could be diluted by the other. The prevalence in this study is higher than the reported incidences of illicit drug use among university students in Laos (5.5%), Indonesia (5.3%), and Malaysia (0.2%), respectively.<sup>23</sup> Moreover, the prevalence appeared lower compared to those reported for similar studies involving seven and eight universities in Wales and Germany, respectively.<sup>24,25</sup> Differences observed could be attributed to the differences in the study settings, sociocultural characteristics of the respondents, and differences in the number and types of drugs included in the studies. However, regardless of the variations observed with respect to other study settings, the prevalence observed in the present study is alarming and of great concern.

The most abused substances were tobacco and cannabis, and less frequently coffee and inhalants, while various types of cough syrups, codeine, and tranquilizers were the most abused drugs among the students. However, use of multiple drugs and/or substances was reported among the respondents. Of all the abused drugs and substances reported by the students, male students showed more abuse than female ones except for cough syrups. Adeyemo et al. reported a similar pattern among undergraduate university students in Southern Nigeria.<sup>21</sup> Perhaps this could be related to the fact that men have more access to such substances compared to women. Moreover, socioeconomic situation of the women in the northern Nigeria may also be a contributing factor, since most women in the region do not go to work and rely majorly on men for their incomes (as husband, father, or guardian). But there were more female abusers in comparison to male abusers among university students in Germany.<sup>25</sup> Despite the trend observed, there was no reported case of abusing any form of stimulants among the female respondents, which corresponds to the findings of Ihezue with respect to the undergraduate medical students in Nigeria.<sup>22</sup> Moreover, although not in the main scope of the present study, antibiotics and pain killers were among the drugs commonly abused by the students. This could partly explain the rise

in the antibiotic resistance all over the globe. Indeed, recently, a study reported prevalence cases of antibiotic self-medication among undergraduate students in Nigeria, and irrational use of antibiotics has been reported to enhance chances of antibiotic resistance among humans.<sup>17</sup>

Majority of the respondents were in their third year at the university and were of the age range of 20 to 25 years. Perhaps 80% of them have been indulged in drug and substance abuse for less than 4 years and were mainly introduced into the practice by peer friends and family members before gaining admission into the university. The initiation of the abuse was mainly out of curiosity and frustration. Peer groups and parental upbringing are believed to play a pivotal role in modelling individuals' behaviors, especially during the early adolescence life. Therefore, it is imperative to note that, from our findings, the university environment had no influence towards initiating the students into the drug or substance abuse. This is perhaps contrary to the findings reported from a similar study by Adeyemo et al., in the Southern Nigeria.<sup>21</sup> The variation could be related to the sociocultural differences in the two study settings. It is worth noting that majority of the students had previous information about drug and substance abuse (59.7%). Moreover, most of them believed that drug and substance abuse campaign had positive impact. This implies that the addicts are in some way aware of the consequences of what they are into, but probably lack of proper monitoring of their behaviors, university-based information and rehabilitation programmes, and social norm approaches designed to control drug and substance abuse kept the students in the abuse culture.<sup>26</sup> Indeed, 45.5% of the students believed that drug or substance abuse increased intelligence. Therefore, this explains the tendency and tenacity of the students to maintain the abuse culture even after getting into the university system.

On assessing the variables associated with drug and substance abuse among the students, it was observed that the academic performance of the students, class attendance, students' information, and belief on the menace were all found to be important factors that significantly had influence on the culture of drug and substance abuse among the students. About 50% of the students involved in drug and substance

abuse reported having poor class attendance and poor academic performance. The implication is multidimensional, which may include the potential for student being deprived to sit for an exam due to poor lecture attendance, since there is a rule in the Nigerian universities that students must have a minimum of 70% attendance to be allowed to sit for an exam. Other implications include expulsion due to poor academic performance, and perhaps several consequences to the society at large.

## Conclusion

Drug and substance abuse among the undergraduate university students in Katsina State is common, and it cuts across both male and female students. Most abused drugs are cough syrups, codeine (in all forms), and sleeping pills (tranquilizers), while of the substance type, tobacco, cannabis, coffee, and inhalants are the most commonly abused. However, there was no record regarding female abusing inhalants. A significant number of the respondents have information regarding the consequences of drug and substance abuse. Moreover, the university environment has no influence on the abusers regarding their indulgence into the menace. Finally, the abuse practice has serious negative impacts on the students' zeal to attend lectures and their academic performance.

Concerted efforts towards parental support and supervisions, social intervention programs, and campus-based prevention and supported programs against drug and substance abuse should be encouraged.

**Limitations:** To our knowledge, this is the first study that involved three different universities (both public and private) on drug and substance abuse among undergraduate students in Nigeria. The study provides insights into the root causes and whether university environment has an influence on initiating drug and substance abuse among the students. The study is, however, not without some limitations; firstly, the online nature of the study may automatically exclude some of the eligible participants who may not have smartphones or other means of accessing the survey tool. Secondly, the study did not report the proportion of drug and substance abusers for individual universities involved in this study. This was intentional in order to avoid



stereotyping some set of students from a particular university.

### Conflict of Interests

The Authors have no conflict of interest.

### Acknowledgements

The authors would like to thank writing consultant, Dikko Muhammad, for his editorial services. We are also grateful to the Health Research Ethical Review Committee of Katsina State Ministry of Health. We are equally grateful to all the Research Ethics Committees of

Al-Qalam University, Federal University Dutsin-Ma, and Umaru Musa Yar'adua University. Finally, to all the participants in this study, we are most grateful.

### Authors' Contribution

Conceptualized the study: YHW; designed the study: YHW, KGM, UII; wrote the first draft of manuscript: KGM; led data collection: YHW; performed analysis and wrote results: ZS; wrote the part of discussion: UII and YHW; revised the whole manuscript: YHW and UII. All authors read and approved the final manuscript.

### References

1. United Nations Office on Drugs and Crime (UNODC). Drug Use and Health in Nigeria, 2018 [Online]. [cited 2019]; Available from: URL: [https://www.unodc.org/documents/data-and-analysis/statistics/Drugs/Drug\\_Use\\_Survey\\_Nigeria\\_2019\\_Exsum.pdf](https://www.unodc.org/documents/data-and-analysis/statistics/Drugs/Drug_Use_Survey_Nigeria_2019_Exsum.pdf)
2. Zivari-Rahman M, Lesani M, Shokouhi-Moqaddam S. Comparison of mental health, aggression and hopefulness between student drug-users and healthy students (A study in Iran). *Addict Health* 2012; 4(1-2): 36-42.
3. Zolkoski SM, Bullock LM. Resilience in children and youth: A review. *Child Youth Serv Rev* 2012; 34(12): 2295-303.
4. Becker JB, Hu M. Sex differences in drug abuse. *Front Neuroendocrinol* 2008; 29(1): 36-47.
5. Mesic S, Ramadani S, Zunic L, Skopljak A, Pasagic A, Masic I. Frequency of substance abuse among adolescents. *Mater Sociomed* 2013; 25(4): 265-9.
6. Goreishi A, Shajari Z. Substance abuse among students of Zanjan's universities (Iran): A Knot of today's society. *Addict Health* 2013; 5(1-2): 66-72.
7. Green KM, Musci RJ, Matson PA, Johnson RM, Reboussin BA, Ialongo NS. Developmental patterns of adolescent marijuana and alcohol use and their joint association with sexual risk behavior and outcomes in young adulthood. *J Urban Health* 2017; 94(1): 115-24.
8. Khalid GM, Idris UI, Jatau AI, Wada YH, Adamu Y, Ungogo MA. Assessment of occupational violence towards pharmacists at practice settings in Nigeria. *Pharm Pract (Granada)* 2020; 18(4): 2080.
9. Wada YH, Musa MK, Ekpenyong A, Adebisi YA, Musa MB, Khalid GM. Increasing coverage of vaccination by pharmacists in Nigeria; An urgent need. *Public Health in Practice* 2021; 2: 100148.
10. Sunday O. Young People are not Just the Future of Nigeria. They are Nigeria Today [Online]. [cited 2018 Mar 27]; Available from: URL: <https://africanarguments.org/2018/03/young-people-are-not-just-the-future-of-nigeria-they-are-nigeria-today-not-too-young-to-run/>
11. Idowu A, Aremu AO, Olumide A, Ogunlaja AO. Substance abuse among students in selected secondary schools of an urban community of Oyo-state, South West Nigeria: Implication for policy action. *Afr Health Sci* 2018; 18(3): 776-85.
12. Onyedibe MC, Ifeagwazi CM, Ugwu DI. Psychopathy and aggressive behaviour among Nigerian male prison inmates: The moderating role of substance abuse. *J Psychol Af* 2018; 28(5): 365-70.
13. Federal University Dutsinma. About the University [Online]. [cited 2019 Apr 23]; Available from: URL: <https://www.fudutsinma.edu.ng/about-the-university/>
14. Umaru Musa Yardua University, Katsina. About [Online]. [cited 2019 Apr 23]; Available from: URL: <https://www.umyu.edu.ng/index.php/2017-03-24-22-03-38/about-umyu>
15. Al-qalam University, Katsina. Briefhistory [Online]. [cited 2019 Apr 23]; Available from: URL: <http://www.auk.edu.ng/briefhistory.html>
16. Barratt MJ, Ferris JA, Lenton S. Hidden populations, online purposive sampling, and external validity: Taking off the blindfold. *Field Methods* 2014; 27(1): 3-21.
17. Khalid GM, Jatau AI, Ibrahim UI, Dungus FM, Shitu Z, Sha'aban A, et al. Antibiotics self-medication among undergraduate pharmacy students in Northern Nigeria. *Med Access Point Care* 2019; 3: 2399202619846847.
18. Abdalla RR, Massaro L, de Queiroz Constantino MA, Laranjeira R, Caetano R, Madruga CS. Association between drug use and urban violence: Data from the II Brazilian National Alcohol and Drugs Survey (BNADS). *Addict Behav Rep* 2018; 7: 8-13.

19. Newman LM, Berman SM. Epidemiology of STD disparities in African American communities. *Sex Transm Dis* 2008; 35(12 Suppl): S4-12.
20. Aremu SB. Drug Factors influencing its use among undergraduate students of A tertiary institution in Nigeria. *Advances in Social Sciences Research Journal* 2018 5(5): 388-97.
21. Adeyemo F, Ohaeri B, Okpala PU, Oghale O. Prevalence of drug abuse amongst university students in Benin City, Nigeria. *Public Health Research* 2016; 6(2): 31-7.
22. Ihezue UH. Drug abuse among medical students at a Nigerian university: Part 1. Prevalence and pattern of use. *J Natl Med Assoc* 1988; 80(1): 81-5.
23. Yi S, Peltzer K, Pengpid S, Susilowati IH. Prevalence and associated factors of illicit drug use among university students in the Association of Southeast Asian Nations (ASEAN). *Subst Abuse Treat Prev Policy* 2017; 12(1): 9.
24. Holloway K, Bennett T. Characteristics and correlates of drug use and misuse among university students in Wales: A survey of seven universities. *Addict Res Theory* 2018; 26(1): 11-9.
25. Schilling L, Zeeb H, Pischke C, Helmer S, Schmidt-Pokrzywniak A, Reintjes R, et al. Licit and illicit substance use patterns among university students in Germany using cluster analysis. *Subst Abuse Treat Prev Policy* 2017; 12(1): 44.
26. Perkins HW. Social norms and the prevention of alcohol misuse in collegiate contexts. *J Stud Alcohol Suppl* 2002; (14): 164-72.

## شیوع و اثرات سوء مصرف مواد روانگردان در بین دانشجویان مقطع کارشناسی در ایالت کاتسینا، نیجریه

یوسف حسن وادا<sup>۱</sup>، گاربا م. خلید<sup>۲</sup>، زایانو شیتو<sup>۳</sup>، عمر ادريس ابراهيم<sup>۴</sup>

### مقاله پژوهشی

### چکیده

**مقدمه:** سوء مصرف دارو و مواد مخدر در میان دانشجویان، یکی از نگرانی‌های بهداشت عمومی و در حال تبدیل شدن به یک تهدید جهانی برای نظام آموزشی می‌باشد. این موضوع برای عملکرد تحصیلی معنادان مخرب‌تر است. پژوهش حاضر با هدف ارزیابی شیوع و اثرات سوء مصرف مواد روانگردان در بین دانشجویان مقطع کارشناسی دانشگاه در ایالت کاتسینای نیجریه و تعیین اثرات این سوء مصرف بر عملکرد تحصیلی دانشجویان انجام شد.

**روش‌ها:** این مطالعه مقطعی با استفاده از ابزار نظرسنجی آنلاین (Google form) که با روایی محتوایی و مطالعه راهنما اعتبارسنجی شده بود، انجام گرفت. پیوند به ابزار نظرسنجی آنلاین از طریق ایمیل و پلتفرم‌های رسانه‌های اجتماعی یعنی واتساپ، فیس‌بوک و توییتر با دانشجویان مقطع کارشناسی سه دانشگاه واقع در ایالت کاتسینا به اشتراک گذاشته شد. داده‌های جمع‌آوری شده از شرکت‌کنندگان واجد شرایط، با استفاده از آمار توصیفی مورد تجزیه و تحلیل قرار گرفت.

**یافته‌ها:** در مجموع، ۳۰۸ دانشجو از سه دانشگاه پرسش‌نامه آنلاین را بازگرداندند که از این تعداد، ۶۷/۲ درصد مرد و ۳۲/۸ درصد زن بودند. در میان پاسخ دهندگان، ۳۷ درصد سوء مصرف مواد مخدر ویا دارو را پذیرفتند. اغلب آن‌ها (۵۶/۲ درصد) دانش‌آموزان سال سوم در محدوده سنی ۲۰ تا ۲۵ سال قرار داشتند.

**نتیجه‌گیری:** سوء مصرف مواد مخدر و دارو در بین دانشجویان مقطع کارشناسی در ایالت کاتسینا رایج است و هر دو دسته دانشجویان دختر و پسر را در برمی‌گیرد. تلاش‌های هماهنگ برای حمایت و نظارت والدین، برنامه‌های مداخله اجتماعی و برنامه‌های دانشگاه محور حمایت و پیشگیری از سوء مصرف مواد مخدر و دارو باید تشویق شوند.

**واژگان کلیدی:** اختلالات مرتبط با مواد؛ دانشجویان؛ نیجریه

**ارجاع:** حسن وادا یوسف، خلید گاربا م.، شیتو زایانو، ابراهیم عمر ادريس. شیوع و اثرات سوء مصرف مواد روانگردان در بین دانشجویان مقطع کارشناسی در ایالت کاتسینا، نیجریه. مجله اعتیاد و سلامت ۱۴۰۰؛ ۱۳ (۴): ۲۳۱-۲۲۱.

تاریخ پذیرش: ۱۴۰۰/۵/۳

تاریخ دریافت: ۱۴۰۰/۲/۲۹

۱- دانشکده علوم دارویی، دانشگاه عثمان دان فودیو، سوکوتو، نیجریه و آکادمی بهداشت عمومی غرب آفریقا، أبوجا، نیجریه

۲- گروه داروسازی و تکنولوژی دارویی، دانشگاه بایرو، کانو، نیجریه

۳- مرکز عملیات پزشکان بدون مرز بارسلونا و آتن، پروژه شینکافی، ایالت زامفارا، نیجریه

۴- گروه داروسازی بالینی و کارآموزی داروخانه، دانشگاه بایرو، کانو، نیجریه

**نویسنده مسؤول:** یوسف حسن وادا؛ دانشکده علوم دارویی، دانشگاه عثمان دان فودیو، سوکوتو، نیجریه و آکادمی بهداشت عمومی غرب آفریقا، أبوجا، نیجریه

Email: [hasawa2011@gmail.com](mailto:hasawa2011@gmail.com)