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Assessment of the prevalence and types of substance abuse among undergraduate students in selected universities in Ogun State, Nigeria

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Abstract

Objective: This study examined the prevalence and patterns of substance use among undergraduates at three universities in Ogun State, Nigeria: the Federal University of Agriculture, Abeokuta; Olabisi Onabanjo University, Ago-Iwoye; and Babcock University, Ilisan-Remo.

Method: A quantitative, descriptive cross-sectional survey design was employed, utilising a multi-stage sampling technique to select participants. The study targeted students aged 15–25 years who were available and willing to participate during the data collection period. Data analysis included Pearson's chi-square (χ^2) test to evaluate the significance of differences in frequency distributions.

Results: Results indicated widespread substance use, with alcohol (86.5%), cigarettes/tobacco (85.5%), and illicit drugs such as cocaine, heroin, morphine, and marijuana (78%) being the most commonly consumed. Motivations for substance use included coping with stress (79%), enhancing confidence and strength (78.5%), peer influence (68.5%), and recreational enjoyment (31%). The negative impacts of substance use were notable, including reduced academic performance (86.5%), increased cravings (85.5%), depressive symptoms (84%), feelings of euphoria (81.5%), and a perceived ability to overcome personal problems (79.5%). Furthermore, substance abuse contributed to interpersonal conflicts (41.5%) and disrupted sleep patterns (46%).

Conclusion: The findings highlight the high prevalence of substance abuse, particularly alcohol and tobacco, among university students. The study recommends developing and implementing targeted intervention programs to help students reduce and ultimately cease substance use, thereby improving their academic, mental, and physical well-being.

Keywords: Substance Abuse, Undergraduate, Student, University, Public Health

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Plain English Summary

This study examined how common drug and substance abuse is among university students in Ogun State, Nigeria, and what types of substances they typically use. The researchers surveyed 1,000 undergraduate students from three universities: the Federal University of Agriculture in Abeokuta, Olabisi Onabanjo University in Ago-Iwoye, and Babcock University in Ilisan-Remo. Most participants were male (75.5%) and between 15 and 19 years old (63%).

The findings were alarming. More than 8 out of 10 students, 86.5%, had used some form of substance. The most commonly used substances were alcohol (86.5%), cigarettes and tobacco (85.5%), and hard drugs such as cocaine, heroin, morphine, and marijuana (78%). When asked about their reasons for using substances, students most often mentioned wanting to escape worries and stress (79%), needing to feel bold and confident (78.5%), and pressure from friends and peers (68.5%). A smaller number cited curiosity, family habits, or simply enjoying life as their reasons.

The consequences of substance use were serious. Most students reported that their grades had suffered because of drug use, with 86.5% saying their academic performance had declined. Many also experienced increased cravings (85.5%), depression (84%), and sleep disturbances (46%). Substance use also contributed to interpersonal conflicts, with 41.5% reporting that it got them into trouble.

The study also found important differences between male and female students. Male students were much more likely to use substances than female students, a difference the researchers believe may be linked to cultural norms in Nigeria, where substance use by women is more socially stigmatised. There was also a clear link between substance use and poor academic performance, with students who used drugs performing significantly worse in their studies.

These findings point to a serious public health concern that requires urgent attention. Substance abuse among Nigerian university students is not only widespread but also has damaging effects on their physical health, mental wellbeing, and educational outcomes. The researchers recommend that universities establish high-quality counselling and rehabilitation services with trained professionals who can help students struggling with substance use. They also call for government policies to address this growing problem and suggest that future research should be conducted in other parts of Nigeria to understand the full scale of the issue better.

Introduction

Substance abuse refers to wrongful use of alcohol, prescription medicine and other legal and illegal substances. Habitual taking of addictive substances such as alcohol, marijuana, hallucinogens and opioids leads to substance use disorder. Illicit drugs are substances that either stimulate (such as cocaine or amphetamines) or inhibit (such as heroin or sedative-hypnotics) the central nervous system or cause hallucinogenic effects (such as marijuana or Lysergic acid diethylamide) to the effect that their use has been prohibited globally (1).

Substance abuse represents a significant global public health challenge. Among university students, substance use has become a major concern for educational institutions, often linked to the psychological stress associated with adapting to a new environment and managing academic demands. Research (2, 3) indicates that students who encounter substance use are more likely to increase their consumption after entering the university setting. Worldwide, complications resulting from drug use are on the rise, with many affected individuals not receiving timely treatment for substance use disorders (2). Young people remain particularly vulnerable to both initiating

substance use and experiencing the adverse effects of substance use disorders (2).

Concurrent use of alcohol and drugs to enhance effects is common but highly dangerous. Alcohol can amplify the toxicity of many substances, lowering the threshold for drug-induced toxicity and increasing the risk of life-threatening or fatal outcomes (2, 3). Illicit drugs such as cocaine and opioids—including heroin and prescription opioids like morphine, methadone, codeine, and oxycodone—are frequently involved in overdose cases. Fentanyl, an opioid often used as a street heroin adulterant, is 80 times more potent than morphine, making small dosage variations potentially fatal (3, 4).

The 2019 National Survey on Drug Use and Health reported that approximately 269 million people worldwide had used drugs at least once, with an estimated 35.6 million individuals, or 0.7% of the population aged 15–64 years, suffering from drug use disorders. This figure represents about 5.4% of the global population within that age range, equating to nearly one in every 19 people (4). In developed nations such as the United States, cannabis use is most prevalent among youths aged 18–25 and adults aged 26 and older. Around 11.6 million people, representing 4.7% of the population

aged 18 and above, reportedly use drugs daily (5). Substance abuse remains a significant public health concern not only in the United States but worldwide, with an estimated 230 million people globally—approximately 5% of the world population—having used an illicit drug at least once in their lifetime (6).

According to the Drug Use Survey in Nigeria, 4.6 million people were estimated to have used opioids, mainly tramadol. About 14.3million abuse drugs without a prescription, while close to 3million of these people are said to have some form of dependence on one drug or the other. In the past years, one out of ten people abused drugs, and out of every four people who are involved, one is a woman (7).

Substance abuse is one of the risky behaviours seen among undergraduates in Nigerian universities, including Ogun State. University years are characterised by transition, intense academic pressures, independence, and separation from parental supervision (7). During this period, opportunities to experiment with risky behaviours such as psychoactive substances, including illicit drugs, increase (7). Risk-taking behaviours increase during adolescence and young adulthood. These behaviours are associated with heightened reactivity to emotions and still immature ability to self-regulate, making adolescence and youth highly vulnerable to the negative consequences of risk-taking (3). The United Nations Office on Drugs and Crime Committee (2) survey has ranked Ogun State as the worst in the prevalence of drug abuse in the South West. The South West area, which includes the states of Ogun, Osun, Ondo, Oyo, Lagos, and Ekiti, has at least 4,382,000 drug users, according to the poll. In the South West, drug abuse is 22.4% of the population, and there are 4,382,000 drug users, according to the UNODC Survey [2]. Ogun State has a prevalence of 17.4% of this total of 22.4% (8). Given how concerning this number is, immediate action is required.

Recent epidemiological studies have focused on evaluating the prevalence of substance abuse among university students in various countries, including Nigeria (9). The misuse of drugs and other substances among undergraduates has emerged as a significant global public health concern (10). Its impact extends beyond simple health risks, as it can contribute to poor academic performance and mental as well as physical health deterioration. Despite widespread disapproval of illicit drug use among university students, its prevalence continues to rise, with younger students increasingly being drawn into this hazardous behaviour. This trend is both alarming and

concerning, highlighting the urgent need to assess substance abuse among undergraduates to mitigate its social and health consequences and propose effective interventions. In Ogun State, Nigeria, only a limited number of studies have explored this issue, and data on the specific types of substances used remain scarce. Consequently, this research aims to determine the prevalence and types of substance abuse among undergraduate students in selected universities within Ogun State. Understanding the extent and nature of substance use in this population is crucial for developing strategies to reduce its incidence and promote healthier behaviours among students.

Materials and Method

Study Area

The study was conducted in Ogun State, southwestern Nigeria, created in 1976 and nicknamed the “Gateway to Nigeria.” It borders Lagos to the south, Oyo and Osun to the north, Ondo to the east, and the Republic of Benin to the west. The state features tropical rainforest and wooded savanna in the northwest. Abeokuta, the capital, hosts the Federal University of Agriculture, established in 1988 with about 16,000 students. Olabisi Onabanjo University, founded in 1982 as Ogun State University and renamed in 2001, has campuses in Ago-Iwoye and Sagamu, accommodating around 50,000 students. Babcock University, originally the Adventist College of West Africa (1959), is located in Ilishan-Remo and enrolls approximately 12,000 students. Ogun State's economy is largely agricultural, producing staple crops such as rice, maize, cassava, yams, and cash crops including cocoa, kola nuts, rubber, and palm products. The state also has mineral resources like limestone and clay, and hosts various industries, while Abeokuta serves as a major market and transport hub.

Research Design

The study adopted a Quantitative, descriptive cross-sectional survey method to elicit information on substance abuse among undergraduate students in selected universities in Ogun State, Nigeria. A cross-sectional study is a type of observational study, or descriptive research, which involves analysing information about a population at a specific point in time.

Study Population

The population for the study was undergraduate students in selected universities in Ogun state, Nigeria, which include Federal University of Agriculture, Abeokuta, Olabisi Onabanjo

University, Ago Iwoye and Babcock University, Ilisan Remo, Ogun state. From the university(s) records: 50,000 students in Olabisi Onabanjo University, 12,000 students in Babcock University and a population of about 16,000 Students for Federal University of Agriculture, Abeokuta.

Study Criteria

Inclusion criteria

University students between the ages of 15 and 25 years from the 3 tertiary institutions of study who were available during the period of data collection and were willing to participate in the study.

Exclusion criteria

Students who were not within the age bracket at the time of exercise, chronically ill, admitted in the hospital, who were not available during the period of data collection and students who were not willing to participate in the study.

Sample Size and Sampling Technique

Sample Size Determination

The sample size was estimated using the Leslie Kish (1965) formula ($n = Z^2pq/d^2$) for prevalence studies (11). Where n = desired sample size, Z = the standard normal deviate set at 2.576, which corresponds to 99% confidence level. The sample size for participants was determined based on a precision of 0.04 and a prevalence of 50% from a study of assessment of Substance use among undergraduate students in selected universities in Ogun State, Nigeria (50% was chosen as a conservative estimate to maximise variability in the absence of existing data).

To calculate the sample size of prevalence for cross-sectional studies, using Kish - Lislie (1965) formula, we have:

$$n = (Z_{1-\alpha})^2 (P(1-P)/D^2)$$

where: n = Sample size $1-\alpha$ = confidence interval = 99% (confidence level)

$Z_{1-\alpha}$ = 99% Z score = 2.576 (from normal distribution table)

P = Prevalence = 50% D = precision or error margin = 4%

Therefore: $n = 2.576^2 [0.5(1-0.5)] / 0.04^2 = 6.6358$
(0.5×0.5) / 0.0016

= (6.6358 x 0.25) / 0.0016 = 1.65895 / 0.0016

= 1,037 = 1,000 (approx.)

Sample Frame

Considering the allocation of samples, which is the way in which the total sample size n is distributed among different strata into which the population has been divided, knowing that the sample

technique employed was a "stratified random sampling technique"

Hence, Proportional Allocation is mathematically represented as:

Proportion of students from each group = sample size/proportion x Population Stratum

$$n_i = n N_i / N \quad (i = 1, 2, 3, \dots k)$$

Where n_i = population size of the i th stratum
sample size

n = sample size

N_i = population of each strata

N = the total size of the population

Olabisi Onabanjo University (OOU), Ago – Iwoye:

$$n_1 = 1000 \times 50,000 / 78,000 \quad n_1 = 641$$

Federal University of Agriculture (FUNAAB), Abeokuta.

$$n_2 = 1000 \times 16,000 / 78,000 \quad n_2 = 205$$

Babcock University (BU), Ilisan Remo

$$n_3 = 1000 \times 12,000 / 78,000 \quad n_3 = 154$$

Sampling Technique

The proportionate stratified random sample was obtained using this formula: (sample size/population size) × stratum size.

A multi-stage sampling technique was used to select the sample. During the first stage, stratified random sampling was used to group the students: 6 faculties from the OOU, 11 schools from Babcock University and 9 faculties from FUNAAB served as the sampling frame.

During the second stage, systematic sampling was employed to facilitate data collection, resulting in the selection of two faculties. These were the faculties of the Faculty of Plant Science and Crop Production, the Faculty of Animal Science & Livestock Production (FUNAAB), the School of Basic Medical Sciences and the School of Management Sciences (BU), and the Faculty of Science and the Faculty of the Social Sciences (OOU Main campus).

During the third stage, simple random sampling was used to select one faculty from each university, which includes the faculty of plant science and crop production (FUNAAB), the school of basic medical sciences (BU), and the faculty of the social sciences (OOU main campus).

Fourth stage: One department was selected from each faculty - the faculty of plant science and crop production (FUNAAB) = department of crop protection; the school of basic medical sciences (BU) = department of anatomy; and the faculty of the social sciences = department of mass Communication (OOU Main campus).

Fifth stage: Using proportionate sampling techniques, respondents were recruited from each

department to make up the calculated sample size of 1000.

Sampling techniques (Multistage)					
	1 st stage Stratified random sampling (Sampling frame)	2 nd stage Systematic sampling technique	3 rd stage Simple random sampling	4 th stage Simple random sampling (balloting)	5 th stage Proportionate sampling technique
OOU	Faculty- 6; Dept- 11	2 faculties	1 faculty	1 department	641
BU	Schools- 11; Dept. – 43	2 faculties	1 faculty	1 department	154
FUNAAB	Faculties- 9; Dept- 40	2 faculties	1 faculty	1 department	205
TOTAL					1000

Instrument of Data Collection

A structured questionnaire and observation checklist were used to collect information from the respondents. The questionnaire was developed by the researcher, who reviewed textbooks, journals, and articles related to the subject matter. A 61-item self-structured questionnaire was utilised to elicit data from the respondents. The questionnaire was divided into six (6) sections.

Section A

Social Demographic data comprising 7 questions (1 to 7), including respondents' gender, either male or female. The age distribution, with the categories of 15-19 years, 20-25 years and above 25 years. Respondents' residence, which includes on-campus or off-campus.

Section B

Data on the substance use, types of drugs, frequency of usage, and duration of usage.

Section C

Respondents' reasons for substance abuse, reasons such as to be bold, to enjoy life, my friends do it, curiosity (to see how it feels), my family members drink and/or smoke, to get away from worries, because alcohol and drugs are sold nearby and ignorance

Section D

Data on the reported effects of Drug/Substance use, which includes questions such as, gets us into trouble, improves my grade/ academic performance, reduces my grades/ academic performance, " " interferes with quality of sleep, leads to more craving, depresses me, it makes me feel high and it makes me overcome my problems.

Section E

Academic Data comprising the respondents' current level, the GPA and the institution.

Validity and Reliability of Research Instrument

Validity

The questionnaire was subjected to scrutiny and reviewed by the supervisor and other qualified personnel; the questionnaire was drawn to ensure that they fulfill the objectives of the study. For construct validity, the questionnaires were divided into many sections. Construct validity was measured statistically using Exploratory Factor Analysis (EFA). The main measures used to test the validity of an instrument in exploratory factor analysis include the Kaiser-Meyer-Olkin's (KMO) measure of sampling adequacy and Bartlett's test of Sphericity. The study employed the KMO sampling adequacy and Bartlett's Sphericity test to determine whether the statements that comprise the research instrument of each variable actually measured what was intended. If the KMO value is greater than 0.5, it indicates that the items actually measure the variables in the study. The result of the Bartlett test of Sphericity at 0.000, which was less than 5%, indicated that there is a highly significant relationship among the variables under study. In this study, the entire KMO test was greater than 5%, and the Bartlett test of Sphericity result was less than 5%, indicating that the questionnaire items for each construct actually measured what was intended.

Reliability of the instrument

To ensure reliability of the instrument, the questionnaire was distributed to 300 participants from the three universities under study with similar socio-demographic characteristics to test the reliability of the instrument. The same was analysed.

Data Analysis

Data were analysed using International Business Machines Corporation Statistical Product and Service Solutions (IBM SPSS) Version 20.0 for

sorting and calculating means and standard deviations. Pearson's chi-square (χ^2) test was used to determine the significance of the difference between frequencies. However, when the assumptions for χ^2 were not met in a 2 x 2 table, Fisher's exact test was used instead. Student's t-test and one-way analysis of variance (ANOVA) were used as appropriate to determine the association between continuous variables. The level of statistical significance was set at $p < 0.05$ in all the analyses.

Result

A total of 1,000 questionnaires were distributed and fully returned (100% response rate). Most respondents were male (75.5%) and aged 15–19 years (63%). In terms of residence, 63% lived on campus, while 37% lived off campus. Regarding institutional distribution, 62% were from OOU, 24% from FUNAAB, and 14% from BU (Table 1).

Table 1: Respondents' Demographic Data

Variable	Category	Frequency (N=1000)	Percentage (%)
Gender	Male	755	75.5
	Female	245	24.5
Age	15-19	630	63.0
	20-25years	165	16.5
	Above 25years	205	20.5
Residence of participants	On campus	630	63
	Off campus	370	37
School	OOU	619	62
	FUNAAB	245	24
	BU	136	14

Source: Field Survey 2023

The findings from Table 2 indicate that 86.5% of respondents had used substances, while 13.5% had not. Among them, 72% reported use within the past 7 days, 10% within the past 12 months, and

4.5% within the past 30 days. Hence, the overall prevalence of substance use was 86.5% (865 out of 1000 students).

Table 2: Substance use among the respondents

	Option	Frequency(N)	Percentage (%)
Have you ever used Drugs/Substance	Yes	865	86.5
	No	135	13.5
When was the last time you were engaged in the use of a drug/ Substance?	Last 12 months	100	10
	Past 30 days	45	4.5
	Past 7 days	720	72

The findings from Table 3 indicate that the main substances used by respondents were alcohol (86.5%), cigarettes/tobacco (85.5%), cocaine, heroin, or morphine (78%), and Indian hemp (marijuana). In contrast, only a small proportion reported using coffee/energy drinks/kolanut (3%),

tranquillisers (3%), and inhalants (2.5%). This suggests that alcohol, tobacco, and hard drugs such as cocaine, heroin, morphine, and marijuana were the predominant substances of abuse among the respondents.

Table 3: Substances used among the respondents

Substances used	Yes	Percentage (%)	No	Percentage (%)
Alcohol	865	86.5	135	13.5
Cigarettes/Tobacco	855	85.5	145	14.5
Cocaine/Heroin/Morphine	780	78	220	22
Indian hemp (Marijuana)				
Coffee/Energy drinks/Kolanut	30	3	970	97
Tranquilizers	30	3	970	97

Inhalants	25	2.5	975	97
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Table 4 shows that the main reasons for substance abuse among respondents were to escape worries (79%), to feel bold and strong (78.5%), and peer influence (68.5%). Other factors included curiosity

(21%), family habits of drinking/smoking (13.5%), enjoyment of life (31%), and availability of alcohol/drugs nearby (2.5%).

Table 4: Reasons for Substance Abuse Among Respondents

Reasons for Substance Abuse	Yes (%)	Mean	No (%)
To be bold and strong	785 (78.5)	0.78	185 (18.5)
To enjoy living (life)	310 (31)	0.31	660 (66)
My friends do it	685 (68.5)	0.68	285 (28.5)
Curiosity (to see how it feels)	210 (21)	0.21	760 (76)
My family members drink and/or smoke	135 (31.5)	0.13	835 (83.5)
To get away from worries	790 (79)	0.79	180 (18)
Because alcohol and drugs are sold nearby	25 (2.5)	0.02	945 (94.5)

Table 5 shows that substance use among respondents primarily affects academic performance, with 86.5% reporting reduced grades. Other common effects include increased cravings (85.5%), depression (84%), and feelings

of euphoria or being "high" (81.5%). Many respondents (79.5%) believe substances help them cope with problems, while fewer reported that drug use leads to trouble (41.5%) or disrupts sleep quality (46%).

Table 5: The Reported Effects of Substance Abuse Among Respondents

Items	Yes	Percentage (%)	No	Percentage (%)
Improves my grades/academic performance	30	3	970	97
Reduces my grades/academic performance	865	86.5	105	10.5
Leads to more cravings	850	85.5	120	12.5
Depresses me	840	84	160	16
It makes me feel high	813	81.5	185	18.5
It makes me overcome my problems	795	79.5	205	20.5
Gets us into trouble	415	41.5	555	55.5
Interfere with the quality of sleep	460	46	510	51
Interfere with the quality of sleep	460	46	510	51

Table 6 shows that there is no significant relationship between substance abuse prevalence and reasons for usage among undergraduates in selected Ogun State universities ($r = -.42$; $p <$

0.05). Therefore, the null hypothesis fails to be rejected, indicating that the reasons for substance use do not significantly influence its prevalence in this population.

Table 6: Correlation matrix on the relationship between the prevalence of substance abuse and reasons of usage among undergraduate students in selected Universities in Ogun State, Nigeria

		Prevalence of drug	Reason for drug use
Prevalence of drug	Pearson correlation	1	-.042
	Sig. (-tailed)		.181
	N	1000	1000
Reason for drug use	Pearson correlation	-.42	1
	Sig. (2-tailed)	.181	
	N	1000	1000

Source: Author's Computation, 2023

Table 7 reveals that there is a significant difference between male and female undergraduate students in the use of drugs in selected Universities in Ogun

State, Nigeria ($t_{(998)} = 13.94$; $p < .05$). The null hypothesis is therefore rejected.

Table 7: Independent t-test on the significant difference between male and female undergraduate students in the use of drugs

	Gender	N	Mean	Std. Deviation	Std. Error Mean	T	Df	Sig.
Drug usage	Male	755	8.9603	.44543	.03625	13.935	998	.000
	Female	245	10.7755	1.40335	.20048			

Table 8 reveals that there is a significant difference in the academic performance of the undergraduate students using drugs/substances in selected universities in Ogun state, Nigeria. Hence, the null

hypothesis, that there is no significant difference in the academic performance of the undergraduate students using drugs/substances in selected universities in Ogun state, Nigeria, is rejected.

Table 8: ANOVA on the significant difference in the academic performance of the undergraduate students using drugs/substances in selected universities in Ogun State, Nigeria

	Sum of squares	Df	Mean square	F	Sig.
Between Groups	40.491	2	20.245	32.772	.000
Within Groups	615.909	997	.618		
Total	656.400	999			

Discussion

A total of 1,000 undergraduate students participated in this study. The majority were males (75%), with most respondents (63%) falling within the 15–19-year age group. This aligns with prior reports indicating that substance use is more prevalent among young males (12). Similarly, studies have shown that 80% of boys aged 10–19 and 50% of girls in the Western Pacific region regularly consumed alcohol (13). Other research has also highlighted high rates of illicit drug use among young adults aged 18–25 years (23.2%) (7).

The prevalence of substance abuse in the present study was notably high at 86.5%, suggesting a rising trend among undergraduates in Ogun State. This figure surpasses previous reports, such as 66.6% prevalence in urban adolescents and 65.7% in rural areas (14), and contrasts with lower estimates from other regions, including 17% infrequent and 4% frequent use in the past year (15), 25% among Asian students (16), and lifetime prevalence of 14% in Kuwait and 8% in Iran (17). Similarly, a study in Oshogbo secondary schools reported 20.3% prevalence (14).

Alcohol (86.5%), cigarettes, and tobacco (85.5%) were the most commonly used substances in this study. This supports earlier findings of widespread alcohol use among adolescents (80% boys, 50% girls) (17). However, it differs from studies in India, where cannabis was most frequently abused (7%) (16), and in Port Harcourt, Nigeria, where alcohol prevalence was lower (30.6%) (12).

The findings of this study indicate that the primary reasons respondents engaged in drug use were to escape worries (79%), to feel bold and strong (78.5%), and due to peer influence (68.5%). These

results differ from a substance use assessment study that attributed illicit drug use among youths primarily to family and peer-related risk factors (81.9% males; 74.3% Black) (18). Similarly, the current findings contradict reports among federal inmates, where 20% admitted committing offences to secure money for drugs (18), and Nigerian studies that found 14.4% of individuals aged 15–64 years were involved in drug-related crimes (19).

In terms of consequences, this study revealed that drug use significantly affected academic performance, with 86.5% of respondents reporting reduced grades. This aligns with prior studies linking cannabis use to poorer academic outcomes and reduced educational attainment (7), though it contradicts other studies reporting higher drug use among students with good academic performance (20). Additionally, 46% of respondents reported sleep disturbances, consistent with previous findings showing insomnia symptoms in 40.2% of student drug users (21). Broader literature also highlights related outcomes, including substance abuse burdens among full-time workers (9.5%) (15), cannabis-related disorders leading to preventable deaths (5.8%) (22), and alcohol contributing to 73% of deaths among U.S. youths aged 10–24 years (7). Other consequences include disability-adjusted life years lost (1.4%) (23), infections such as HIV and hepatitis through needle sharing (24), and increased risks of injuries (40%) and non-communicable or mental health disorders (50%) (25).

Gender differences were also observed. Male students reported significantly higher drug use (75.5%) compared to females (24.5%). This disparity may reflect cultural and social norms in Nigeria, where female substance use is

stigmatised or considered taboo. These findings are consistent with previous community-based studies showing male gender as a strong predictor of substance abuse in Nigeria (26), and Miller (27), who also found a significant correlation between male gender and higher rates of drug use.

Substance abuse among undergraduates remains a pressing global and national public health concern, with Nigerian university students demonstrating heightened vulnerability. Previous studies across different countries have identified several risk factors for substance use, including socio-demographic characteristics (male gender, independent living arrangements, parental separation/divorce), peer influence, and financial stress. Additional contributing factors include co-use of substances such as tobacco and alcohol, as well as psychological and behavioural challenges like anxiety, depression, and violent conduct. Conversely, protective factors such as older age, strong religious commitment, and parental cohabitation have been shown to reduce the likelihood of substance use.

In this study, 1,000 students from three universities in Ogun State (University of Agriculture, Abeokuta; Olabisi Onabanjo University; and Babcock University) were surveyed, with a full questionnaire return rate. Findings revealed a predominance of male respondents (75.5%), with most aged 15–19 years (63%). Alarming, 86.5% reported substance use, with alcohol being the most commonly abused substance. Recent usage was high, as 72% reported use within the preceding week. Other substances reported included cigarettes/tobacco (85.5%), cocaine, heroin, or morphine (78%), marijuana (78%), and to a lesser extent, stimulants (coffee/energy drinks/kolanut, 3%), tranquillisers (3%), and inhalants (2.5%).

These findings underscore a worrying trend of widespread and frequent substance use among undergraduates in Ogun State, with alcohol, tobacco, and hard drugs emerging as the most prevalent. The data point to the urgent need for targeted prevention and intervention strategies to address both the social and health implications of this rising epidemic.

In the present study, substance abuse within the past seven days was markedly higher among male students (75.5%) compared to female students (24.5%). This disparity may be linked to prevailing cultural and social norms in Nigeria, where smoking and drug use among women are viewed as shameful or even taboo. Similar community-based studies have reported a significant association between male gender and substance

abuse, suggesting that cultural acceptance and social expectations contribute to this difference.

As shown in Table 4, respondents indicated several reasons for substance use. The most frequently reported motivations included escaping from worries (79%), gaining courage and strength (78.5%), and peer influence (68.5%). Other reasons included curiosity (21%), influence from family members who use substances (13.5%), enjoyment of life (31%), and availability of substances nearby (2.5%). Overall, the findings suggest that the primary drivers of drug use among undergraduates in Ogun State are coping with stress, enhancing confidence, and peer pressure.

Conclusion

In Ogun State, substance misuse is becoming more common among undergraduate students. Numerous risk variables are connected to drug use among college students. Sociodemographic traits like male gender were among these factors, and substance misuse was found to be motivated by escaping anxieties, peer pressure, and being brave. Undergraduate students' poor academic performance is closely linked to substance use. The three most common substances that students abuse are alcohol consumption, cigarette or tobacco use, and marijuana. In light of the study's findings regarding the prevalence of substance abuse among undergraduate students, as well as the associated risk factors and repercussions, the government must implement policies in universities to prevent this social-psychotic threat.

Thus, it is recommended that there be high-quality counselling and rehabilitation centres with knowledgeable personnel who can assess these drug-using students and ensure that the appropriate authorities enforce them. For future research, it is advised that the study be conducted again in different locations and educational institutions in Nigeria.

List of Abbreviations

ANOVA: Analysis of Variance

BU: Babcock University

BUHREC: Babcock University Health Research Ethical Committee

CVD: Cardiovascular Disease

FUNAAB: Federal University of Agriculture, Abeokuta

GPP3: Good Publication Practice 3

HIV: Human Immunodeficiency Virus

IBM SPSS: International Business Machines Corporation Statistical Product and Service Solutions

KMO: Kaiser-Meyer-Olkin

NCD: Non-Communicable Disease

OOU: Olabisi Onabanjo University

UNODC: United Nations Office on Drugs and Crime

WHO: World Health Organization

Declarations

Ethical Considerations and Consent to Participate

Before the fieldwork, ethical approval was acquired by the Babcock University Health Research Ethical Committee (BUHREC 320/23). For permission to conduct the study, an introduction letter was acquired from Olabisi Onabanjo University in Ago-Iwoye, Ogun State, and the School to the Federal University of Agriculture in Abeokuta, respectively. Every undergraduate student who expressed interest in taking part in the study was fully informed about it, as well as their rights and privileges, including the freedom to leave at any moment without incurring any fees. The researcher ensured the anonymity of both the information provided and the participants.

Consent for Publication

All authors have reviewed the final manuscript and give their consent for publication under the Creative Commons Attribution Non-Commercial 4.0 license.

Availability of Data and Materials

The authors declare consent for all available data present in this study.

Conflict of Interest

None to declare.

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Authors' Contributions

The entire study procedure was conducted with the involvement of all writers.

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