A Study on Alcohol and Substance use among University Students in Edo State, Nigeria

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ABSTRACT

Alcohol and substance use has become rampant worldwide, with a high prevalence of its use within the university environment. Logically, implementing strict policies for controlling alcohol and other substance use is required to maintain optimum health for the general public. This study was conducted to assess alcohol and substance use among university students in Nigeria.

METHOD; Three hundred and forty participants took part in this study. A descriptive cross-sectional survey was used. Data collection was done with a structured, self-administered questionnaire. Data were analyzed with the statistical package for the social sciences (SPSS 16.0). Of the 340 respondents, 75.8% fall within the 20–29 age group, representing the largest age group of respondents. A more significant proportion had heard about alcohol and substance abuse (95%). The result showed that most students do not abuse drugs (67.6%). Friends' influence was the determining factor for most who partook in alcohol and other substances.

CONCLUSION; Although the study showed that most respondents had good knowledge of alcohol and substance abuse, health education is still needed to prevent misuse of alcohol and substances.

INTRODUCTION

The World Health Organization defined drug abuse as a "state" that may occur periodically or chronically, detrimental to individuals and society [1]. Substance use has become a significant public health issue globally [2]. The United Nations Office for Drugs Control and Prevention estimated that between 155 and 250 million people, or 3.5% to 5.7% of the world's population aged 15–64, used drugs at least once in the last year [3].

The alarming evidence of the prevalence of drug abuse, the effects, and the consequences among students has resulted in concern and a challenge for healthcare professionals to implement strategies of equipping youths through sensitization and skill acquisition to live devoid of the menace. In Nigeria today, the effects of substance use are diverse, including acute and chronic health problems and social and psychological problems. There is disruption of interpersonal relationships, particularly within the family, criminal behavior, school failure, vocational issues, and failure to achieve typical adolescent milestones, yet these adolescents are expected to be the leaders of the country in the future when they do not even have any focus for the future [4].

The evolving government policies of the West African Nations seem to lose sight of their responsibilities. However, it claims that tobacco should be regulated in a market-oriented framework, which strikes an optimal balance between the need to ensure a healthy workforce and the optimal balance. There is substantial data to show that a considerable chunk of these teens start with drug or alcohol use due to curiosity [3-4]. They experiment and stop or continue to use these agents occasionally, with a significant number of them coming down with problems.

Others develop an addiction, moving on to more dangerous drugs and causing substantial harm to

themselves and society [3]. Today, more youths are becoming drug-dependent as most Western African countries, especially Nigeria, gradually transition from being a drug-consuming nation [3-5].

Illicit drug use is detrimental to individuals and society, spawning crimes and spreading diseases like AIDS. Today, there are 90 million drug users worldwide, and no country alone can stem the drug trade within its borders. No country is immune, and no person is [6]. Some people are involved in illicit drugs because they want to reduce the normal pressures around them. It symbolizes a protest against set rules and exploring the basics of self [7].

Drug and alcohol abuse are significant problems that affect school-age youth more significantly today than in the past. These curious young minds frequently begin to experiment with alcohol, tobacco, and other drugs during their middle school years, to the point that by high school, the rate of substance use is remarkably high. Many educators recognize that this is a significant barrier to achieving educational objectives [8]. This study determines the prevalence of substance abuse among students in a West African university. It could serve as a basis for further research into the use of alcohol and other substances among university students.

Literature Review

The misuse of various substances has increased among Nigerian youths. Moronkola et al. pointed out that some substances alter the mind and change the user's feelings, perceptions, and behavior when they are used because they exert actions on the brain [9]. Existing literature reveals that early initiation of drug use is one of the best predictors of future drug abuse and dependence [10-11]. This implies that youths whose drug use started before the age of 14 are more vulnerable to drug problems than those who began at age 21 and above. It may manifest as the use of illicit drugs or the misuse of prescription or over-the-counter pills [11].

So many reasons have been postulated for substance abuse as a phenomenon with a multifaceted etiology. For example, individuals with an outgoing personality are more likely to abuse drugs. This is because substance abuse can emanate from many psychosocial reasons. Hence, personality disorders and socio-economic background are the major determinants of the victim's involvement in drug abuse [12].

Other reasons are stress reduction, self-esteem, easy drug accessibility, and the desire to be sociable. It has been postulated that perhaps vulnerability may be inherited in the form of heightened susceptibility to a certain type of drug [13].

Many centuries ago, man learned to ingest alcohol in order to get special bodily sensations. It is deeply embedded in the diverse cultures of the world [14]. Today, alcohol is in the composition of many beverages and varies greatly in its nature and strength. Some have from 3–20%, while some contain up to 50% alcohol.

Apart from alcohol and tobacco, other substances with several appellations which are sources of great concern to the government are narcotics. These are the hard drugs and are the most dangerous. They include codeine, heroin, etc. Others are morphine and paregoric methadone. These drugs reduce physical and psychological sensitivity, resulting in a loss of contact with reality, a sense of euphoria, and reduced fear, tension, and anxiety [15]. It also reduces the physical activities of the user and causes drowsiness, constipation, nausea, and vomiting in some individuals. High doses sometimes cause unconsciousness, coma, or death [15].

The sedatives are nicotine, tranquilizers, barbiturates, etc. Sedatives reduce tension, anxiety, and inhibitions, resulting in a feeling of relaxation and drowsiness. Overdose of the drugs produces blurred speech, staggering, sluggishness, reactions, erratic emotionality, and untimely sleep. The stimulants include well-known cocaine, caffeine or codeine, paracetamol, etc. These classes of drugs, when they are not medically used as an anesthetic, are capable of elevating mood, suppressing hunger, decreasing fatigue, and causing sensations and sensory hallucinations.

The hallucinogenic intoxicant is by far the most common hard drug amongst youths. Marijuana, with various generic names, has been reported as the most accessible drug amongst students. According to [12-14], students refer to it as pep or superman pills. Popularly known as Indian hemp, Igbo, and Ganja, the plant is cultivated in most rural areas due to the topography of the soil. Simmons et al. reported that students involved in drug abuse are likely to suffer the consequences stated above and may have deficient academic performance [15].

Methodology
Study Area
The study was carried out at a West African university. The university has a population of about 4,500 students and has seven colleges, namely: Law, Health Sciences, Natural, and Applied Sciences, Business Management Studies, Pharmacy, Engineering, and Arts and Social Sciences. It also offers postgraduate courses in professional fields like law and accounting. A cross-sectional design was used for the study. The study was carried out over a

12-month period (January 2016–December 2016). The study population is the active students of the university institution.

Selection Criteria

Inclusion Criteria

All registered students have spent at least six months at the institution.

Exclusion Criteria

Non-students and students who have spent less than six months.

3.5 Sample Size Determination

The sample size for the study was calculated using the formula:

$$n = z^2pq/d^2$$

The prevalence rate was 72% and was cited from the study titled 'Assessment of Alcohol and Substance Use among Undergraduates in Selected Private Universities in South-West Nigeria" by Adekeye, Olujide, Adeusi, Sussan O., and Sholarin, Muyiwa A.

where N= the minimum sample size.

Z = the standard normal deviation, set at 1.96 for the 95% confidence level. P = 72%.

q = 1-0.72

d = degree of accuracy desired in this study was set at 0.05.

Substituting the above figures in the formula, the desired sample size has arrived at n= $(1.96)^2 \times 0.72 \times 0.28/(0.05)^2$ = 310.

Based on an estimated prevalence rate of 72%, the estimated minimum sample size was 310 approximately.

Assuming 10% (0.1×310=31) nonresponse, the minimum sample size n for the study was (310 + 31) = 341.

Sampling Technique
The technique applied in selecting the participants from the departments was the multistage sampling technique. The total number of students at the university was 5000. A sampling frame that comprises five colleges was used. A preliminary survey was then carried out to determine the number of students per department. At the end of the survey, the 5 colleges yielded the following numbers of students, each using the department to the total number of students ratio: Natural and Applied Sciences 40 students, Health Science 180 students, Pharmacy 60, Engineering 50, and Law 10. All the students in these departments who met the inclusion criteria were then interviewed.

Data Collection
Data was collected using a quantitative data collection method. A structured researcher-administered questionnaire was used in this study. The questionnaire was pre-tested for comprehensibility, clarity, and validity among fifteen randomly selected students at the university.

Tools for Data Collection
A well-structured questionnaire was used during this study to collect data from the students.

Data Management
The questionnaires were screened for completeness, coded, and entered into a Statistical Package for Social Science (SPSS) version 16.0 software for analysis. Qualitative data was presented as percentages.

Ethical Consideration
1. Ethical clearance to conduct this research was sought and obtained from the management of the university.
2. Informed consent was obtained from each respondent before the conduction of interviews.
3. Confidentiality and privacy were respected during the course of the interview.
4. To ensure confidentiality, respondents' serial numbers rather than names were used to identify each respondent.
5. Respondents were informed of their right to decline participation or even withdraw from the study at any time they wished to do so.
6. Respondents were also informed that there would be no consequences for refusal to participate in the study or withdrawal from it.
7. There was no risk of harm or injury to the participants during or after the conduction of the study.
8. All data generated from the study was kept secure and made available only to the researcher alone.

Limitations
1. It was difficult to administer the questionnaire since it was difficult to locate students in each department due to varying timetables.
2. Lack of cooperation from some students

RESULTS

TABLE 1: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Variable	Frequency (N=340)	Percentage (100%)
AGE:		
10-19	75	22.1
20-29	258	75.8
30-39	6	1.8
40-49	1	0.3
SEX:		
Male	180	52.9
Female	160	47.1
MARITAL STATUS		
Single	321	94.4
Married	19	5.6
RELIGION		
Christianity	275	80.9
Islamic	62	18.2
Traditional worshipper	0	0.0
Others	3	0.9

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Variable	Frequency (N=340)	Percentage (%)
FACULTY:		
Health science	180	52.9
Pharm	60	17.6
Engineering	50	14.7
Nas	40	11.8
Law	10	2.9
EDUCATIONAL PROGRAMME:		
Degree	336	98.8
Diploma	1	0.3
Others	3	0.9
LEVEL		
100	12	3.5
200	42	12.4
300	120	35.3
400	129	37.9
500	31	9.1
600	6	1.8
FAMILY TYPE		
MONOGAMOUS	281	82.6
POLYGAMOUS	54	15.9
SEPARATED	2	0.6

Respondents' age ranged from 10-49 years, with a mean age of 25years. A vast majority of respondents (258) fell between the ages of 20-29 (75.8%), while those between the ages of 40-49 (1) had the least (0.3%) number of respondents.

Most of the respondents were male, 180 (52.9%) as compared to female 160 (47.1%). The marital status of respondents had a majority of singles totaling 324 (94.4%) as to 19 (5.6%) married respondents.

The religion of respondents was dominated by Christians totaling 275 (80.6%), Muslims were 62 (18.2%), and others were the least at 3 (0.9%). Respondents' faculty was dominated by Health sciences racking up a total of 180 (52.9%), followed by pharmacy 60 (17.6%), Engineering 50 (14.7%), NAS 40 (11.8%), and Law 10 (2.9%).

Respondents educational program had full-time degree programs majority of 336 (98.8%) with diploma 1 (0.3%) and others 3 (0.9%). Respondents level cut across 100-600L as the case may be with those in 400L having a slim

majority of 37.9% (129), 300L with 35.3% (120), 200L 12.4% (42), 500L 9.1% (31), 100L with 3.5% (12) and 600L with 1.8% (6).

The family type had respondents of monogamous setting dominating with 82.6% (281) followed by polygamous setting 15.9% (54) while 0.6% (2) are in a separated family setting.

PREVALENCE OF ALCOHOL/SUBSTANCE USE
TABLE 2: KNOWLEDGE OF DRUGS

Variable	Frequency N=340)	Percentage (%)
HEARD OF DRUGS		
Yes	323	95.0
No	17	5.0
DRUG USER		
Yes	110	32.4
No	230	67.6

95% (323) of the respondents have heard about drugs and their abuse while 5% (17) had not. The prevalence of drug and substance abuse was 32.4%.

PREVALENCE OF ALCOHOL/SUBSTANCE USE
TABLE 3: COMMONLY ABUSED DRUGS AND SUBSTANCES KNOWN BY RESPONDENTS

Variable	Frequency (N=323)	Percentage (%)
COMMONLY KNOWN DRUGS AND SUBSTANCE		
Alcohol	41	12.7
Indian Hemp	7	2.3
Analgesics	9	2.8
Sedatives	2	0.6
Cocaine	5	1.5
Marijuana	2	0.6
Codeine	26	8.0
Others	3	0.9
Alcohol, Codeine and Marijuana	24	7.4
Indian Hemp, Alcohol, Marijuana	2	0.6
Alcohol, Sedative, Codeine	2	0.6
Alcohol, Codeine, Analgesics	2	0.6
Alcohol, Codeine	8	2.6
Alcohol, Cocaine, Codeine	2	0.6
Alcohol, Codeine, Indian Hemp	12	3.7
Indian Hemp, Codeine, Marijuana	11	3.4
All	165	51.1

Amongst the respondents who have heard of drug/substance use, 12.7% (41) have heard of alcohol use. Sedatives and marijuana had the lowest reported heard use with 0.6% (2) each. Codeine is next to alcohol with 8.0% (26) followed by analgesics 2.8%, Indian Hemp 2.3%, cocaine 1.5% and others 0.9%.

A majority of 51.1% have heard of all drugs mentioned earlier/substances. In contrast, Indian hemp, alcohol and marijuana, alcohol, sedative and codeine, alcohol, codeine and analgesics, alcohol, cocaine, and codeine had the lowest reported heard use with 0.6% each.

PREVALENCE OF ALCOHOL/SUBSTANCE USE
TABLE 4: COMMONLY USED DRUGS AND SUBSTANCES BY RESPONDENTS

Variable	Frequency (N=110)	Percentage (%)
Which do you use?		
Alcohol only	18	16.4
Indian Hemp only	5	4.5
Analgesics only	14	12.7
Sedatives only	5	4.5
Cocaine only	5	4.5

Marijuana only	8	7.3
Codeine only	10	9.1
Codeine & Indian Hemp	4	3.6
Marijuana, Codeine & Cocaine	6	5.5
Alcohol, Sedative & Analgesics	6	5.5
Codeine & Analgesics	6	5.5
Cocaine and Alcohol	4	3.6
Analgesics & Indian Hemp	3	2.7
Indian Hemp, Alcohol & Marijuana	6	5.5
Alcohol, Codeine & Sedative	3	2.7
Alcohol & Codeine	7	6.4

Respondents who used a single drug were majorly alcohol-related with 16.4% (18) followed by analgesics 12.7%, codeine 9.1%, marijuana 7.3%, and Indian hemp 4.5% respectively.

Respondents using more than one drug in combination or interchangeably had alcohol and codeine as a majority with 6.4%. Marijuana, Codeine & Cocaine, Alcohol, Sedative & Analgesics, Codeine & Analgesics, and Indian Hemp, Alcohol & Marijuana following with 5.5%.

PREVALENCE OF ALCOHOL/SUBSTANCE USE
TABLE 5: DURATION OF USE OF ALCOHOL OR SUBSTANCES

Variable	Frequency (n=110)	Percentage (%)
Duration of use		
Less than a year	25	22.7
More than a year	85	77.3

Respondent duration of drug/substance abuse showed a majority have been using the drug(s) for more than a year 77.3%. In contrast, those with less than a year's use were 22.7%.

PATTERN OF USE
TABLE 6: FREQUENCY OF USE OF SUBSTANCE

Variable	Frequency (n=110)	Percentage (%)
How often do you use it?		
Daily	38	34.5
Weekly	44	40.0
Fortnightly	8	7.3
Monthly	20	18.2

The timely pattern of drug use showed a slight majority for weekly users at 40%, daily users at 34.5%, monthly users at 18.2%, and lastly fortnightly users at 7.3%.

PATTERN OF USE
TABLE 7: MODE OF USE OF SUBSTANCE

Variable	Frequency (n=110)	Percentage (%)
How do you use it?		
Injection	20	18.2
Inhalation	9	8.2
Ingestion	27	24.5
Smoking	49	44.5
All	5	4.6

The preferred route of drug use had smoking as the majority with 44.5%, ingestion 24.5%, injection 18.2%, inhalation 8.2%, and a small minority of 4.6% uses all the routes as mentioned earlier for drug use.

PATTERN OF USE

TABLE 8: SOURCE OF ALCOHOL OR SUBSTANCE

Variable	Frequency (n=110)	Percentage (%)
Source:		
Friends-only	37	33.6
Home only	8	7.3
Drug Outlets only	32	29.1
Indigenes of Okada only	8	7.3
Friends, Home and Outlets	1	0.9
Friends & Outlets	10	9.1
All	3	2.7
Friends, Outlets & Indigenes	11	10.0

Sources through which respondents access these drugs had a majority 33.6% through friends, drug outlets 29.1%, home, and indigenes of okada 7.3% each. Respondents who accessed their drugs through all the above-listed sources were 2.7%, while those who accessed via friends, outlets, and okada Indigenes were 10%.

PATTERN OF USE

TABLE 9: MONEY SPENT ON ALCOHOL OR SUBSTANCE

Variable	Frequency (n=110)	Percentage (%)
Do you spend money on drugs?		
Yes	80	72.7
No	30	27.3
If Yes, how much?		
1-4,999	32	40.0
5000-10000	31	38.8
>10000	17	21.2

Money spent on drugs and/or their acquisition had a substantial majority of 72.3%, with those who do not spend money on drugs with 27.3%. The estimated amount of money spent on drugs had a majority 40% between 1-4,999, 38.8% for money spent between 5000-10000 and 21.2% for over 10000 worth of money spent.

PATTERN OF USE

TABLE 10: PREFERENCE OF USE

Variable	Frequency (n=110)	Percentage (%)
HOW DO YOU PREFER TO USE DRUGS?		
Alone	25	22.7
With Friends	51	46.4
At parties	9	8.2
For examination periods	4	3.6
Alone, With friends, at parties	8	7.3
With friends & At parties	7	6.4
Alone & Exams	1	0.9
With friends & Exams	1	0.9
All	4	3.6

A significant 46.4% respondent prefers to use the drug with friends, while 22.7% prefer to use it alone. 8.2% like drug use at parties and 3.6% during examination periods.

Some 3.6% of respondents had no preference and used drugs in all circumstances, while 7.3% used them alone, with friends, and at parties. 6.4% of respondents use drugs with friends and at parties, 0.9% use medicines alone and during the exam period, and 0.9% use drugs with friends and during the exam period.

PATTERN OF USE

TABLE 11: ADDICTION TO DRUGS

Variable	Frequency (n=110)	Percentage (%)
Addicted to drugs?		
Yes,	17	15.5
No	93	84.5
If yes, why?		
Can't do without it	12	70.6
Good feeling	5	29.4

84.5% of respondents reported not having an addiction. In comparison, 15.5% reported being addicted. The reasons for the addiction ranged from not being able to do without a drug/substance (70.6%). The other 29.4% reported being addicted to the good feeling it gave them.

FACTORS THAT INFLUENCE USE OF SUBSTANCE/DRUG

TABLE 12: REASONS FOR CONTINUOUS USE

Variable	Frequency (n=110)	Percentage(%)
Reasons for continuous use		
Academic problems	9	8.2
Leisure	48	43.6
Gain Power	7	6.4
Enhance performance	10	9.1
All of the above	25	22.7
Leisure & Performance	5	4.5
Academics & Performance	1	0.9
Academics, Power & Performance	2	1.8
Academics & Leisure	2	1.8
Leisure & Power	1	0.9

The reported reasons for continuous use of drugs had its majority from substance use for leisure 43.6%, to enhance performance 9.1%, due to academic problems 8.2%, to gain power 6.4% and all of the reasons mentioned above 22.7%.

Those reported with more than one reason included leisure and performance 4.5%, academic problems and performance 0.9%, academics, power and performance 1.8%, academics, and leisure 1.8%, leisure, and power 0.9%.

TABLE 13: FACTORS THAT INFLUENCE USE OF SUBSTANCE/DRUG

Variable	Frequency (n=110)	Percentage (%)
Factors influencing use		
Availability of drugs	5	4.5
Affordability	5	4.5
Peer Pressure	7	6.4
Loneliness	3	2.7
Boredom	10	9.1
Emotional problems	22	20
Adventure	16	14.5
All	28	25.5
Availability, Affordability & Boredom	4	3.6
Affordability & Emotional problems	1	0.9
Availability, Affordability, Adventure	1	0.9
Peer Pressure & Boredom	1	0.9
Loneliness & Boredom	1	0.9
Availability, Peer Pressure & Loneliness	3	2.7
Availability & Affordability	3	2.7

Factors influencing drug use as reported by correspondents were emotional problems 20% adventure 14.5%, boredom 9.1%, peer pressure 6.4%, availability and affordability 4.5% each, and loneliness 2.7%.

Respondents with multiple factors influencing drug use availability, affordability, boredom (3.6%), availability, peer pressure, loneliness (2.7%), availability and affordability (2.7%), loneliness, and boredom. 0.9%, peer pressure, and boredom 0.9%,availability, affordability and adventure 0.9%, affordability and emotional problems 0.9%, all 25.5%.

COMMONLY REPORTED SIDE EFFECTS OF SUBSTANCE
TABLE 14: SELF-REPORTED SIDE EFFECTS OF DRUGS

Variable	Frequency (n=110)	Percentage (%)
Experienced side effects?		
Yes	33	30.0
No	77	70.0
If Yes, Specify.		
Hangover	16	48.6
Breathlessness	2	6.1
Dizziness	10	30.3
Cough	0	0.0
Constipation	1	3.0
Seizure	1	3.0
Weight loss	1	3.0
Sore throat	1	3.0

A large chunk of respondents reported no side effects experienced with drug use 70% with 30% admitting to experiencing side effect(s) with drug use.

Common reported side effects of drugs/substances used had a hangover as a majority with 48.6%, dizziness at 30.3%, breathlessness at 6.1% with constipation, weight loss, seizure, and sore throat having 3.0% each.

TABLE 15: REPORTED SIDE EFFECTS OF SUBSTANCE

Variable	Frequency (n=110)	Percentage (%)
CONCERNS ABOUT CONSEQUENCES OF USE?		
Yes	30	27.3
No	80	72.7
IF YES, WHAT ARE THEY?		
Can't live without it	7	23.3
Health concerns	23	76.7

Regarding consequences, a majority, 72.7%, have no worries about impacts, while 27.3% have fears.

DISCUSSION

The mean age of respondents was similar to that found in a previous study conducted at the University of Ilorin. The 20-29 year age category had the highest number of respondents in the survey. This age range constitutes a relatively young and vibrant group of students. The majority of the respondents is slightly dominated by males constituting 52.9% [16].

Alcohol abuse had the highest prevalence among respondents (20.9%), this may be because alcohol is relatively cheap and easy to procure. The majority of respondents (36.7%) were weekly users, followed by daily users (34.7%) and monthly users (20.4%). This is similar to a study conducted at the University of Ilorin [17-19].

Leisure accounts for the most typical reason for indulgence (32.9%). This is followed by respondents seeking to enhance performance (11.8%) and respondents with academic problems (10.6%).

A large chunk of respondents reported no side effects experienced with drugs and alcohol use with 33.9%; however, experienced side effects with hangover being the most familiar side effect reported at 50%, dizziness at 31.2% [20-21].

CONCLUSION

The study showed that less than half of the student population in studied University indulged in drug abuse. The use pattern mainly was weekly, predominantly smoking and it was acquired through friends and drug outlets. The students who spent money on drugs, preferred to used them with friends, and identified as non-addicts. It showed that these individuals use substances during their leisure time and when experiencing emotional problems. The majority of the population experienced no side effects and have no concern about the consequences of use.

RECOMMENDATIONS

This study has re-emphasized the need to raise the awareness of the student population about the risk involved in drug and alcohol abuse.

1. Educate the student population about the risk involved in drugs and alcohol use.
2. To close down all unlicensed drug outlets.
3. To meet with school authorities and inform them of the rate of drug abuse in schools and advise organise awareness campaigns to senstize their students.
4. To advise already addicted students to consult a health professional who will help them out of the addiction.

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