

## ORIGINAL ARTICLE

# Knowledge and Prevalence of Substance Abuse among Undergraduate Students of a Nigerian University

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## ABSTRACT

**Background:** Substance abuse among university students is an evolving concern among young person's today with grave consequences on health and well-being. This study aimed to assess the knowledge and prevalence of substance abuse among university students in order to identify appropriate preventive measures.

**Methods:** An analytical cross-sectional study was conducted among 771 undergraduate students of the University of Benin, Benin City, Edo State, Nigeria, using pretested self-administered questionnaire. Respondents were selected by a multistage sampling technique, data collected were analyzed using IBM SPSS version 25.0. Statistical significance was set at  $p < 0.050$  at 95% confidence interval.

**Results:** The mean age of respondents studied was  $23.2 \pm 2.3$  years. Six hundred and sixty-four (97.2%) of the respondents had good knowledge of substance abuse. The life time prevalence of substance use was 44.4% ( $n=342$ ) while recent prevalence of substance use was 68.1% ( $n= 233$ ). Faculty of students (OR=2.320; CI=1.379 - 2.434;  $p<0.001$ ), religion (OR: 0.452; CI: 0.048-0.282;  $p<0.001$ ), family type (OR: 0.240; CI: 1.215-3.118;  $p=0.006$ ), monthly allowance (OR: 0.375; CI: 1.541-6.707;  $p=0.002$ ) and knowledge of substance use (OR: 0.235; CI: 0.075-0.740;  $p=0.013$ ) were identified as significant predictors of substance use.

**Conclusion:** Despite good knowledge of substance abuse and health implications a little less than half of the respondents used substances. There is need to reduce the prevalence of substance use through targeted health educational interventions among this target population.

**Keywords:** Substance use; Undergraduate students; University of Benin, Benin City.

## INTRODUCTION

Substance abuse among university students is an evolving concern among young person's today with grave consequences on health and well-being.<sup>1-5</sup> Substance abuse entails the use of illegal drugs, prescription drugs, or alcohol for non-medical purposes or for medical purposes but void of the prescription, direction and guidance of a qualified healthcare professional.<sup>1,2,3</sup>

The use of these substances can lead to serious consequences such as addiction, health problems, legal issues, and academic problems.<sup>5-6</sup>

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Substance abuse among university students has been linked to poor academic performance, impaired judgment, increased risk of accidents and injuries, and increased risk of mental health problems such as anxiety and depression.<sup>4-9</sup>

Due to growing prevalence of substance use among young persons, assessing the knowledge and prevalence of substance abuse among this population is useful in providing the needed information required to help reshape their perceptions, harmful inclination and practice for a safe and bright future. This study aimed to assess the knowledge and prevalence of substance abuse among university students in order to identify appropriate preventive measures.

## METHODOLOGY

This was an analytical cross-sectional study, involving undergraduate students of the University of Benin selected from various faculties and departments within the University. The University of Benin (UNIBEN) is a government owned tertiary institution, established on the 23rd of November, 1970, by the then Colonel Samuel Osaigbovo Ogbemudia-led military administration of Midwest State.<sup>10</sup> The University was established, first as Midwest Institute of Technology. After attaining the status of a full-fledged university in line with requirements of the National Universities Commission on the 1st of July, 1971, the name was changed to the University of Benin. The Institution became a federal government owned University on the 1st of April, 1975. The University now has an estimated 60,000 student population who are spread across the two campuses of the University. The University has 15 Faculties, 1 College and 3 Institutes<sup>10</sup>

A sample size of 771 respondents was calculated using Cochran formula taking into cognizance a substance use prevalence of 71.9% from a previous study<sup>11</sup>, a 10% non-response rate and a design effect of 2 was applied. A multistage sampling technique was utilized to select respondents studied involving selection of campus (Stage 1); selection of faculty from the list of faculties (Stage 2); selection of departments from list of departments in selected faculty (Stage 3) and finally, selection of respondents from the list of selected departments (Stage 4). This were done using appropriate selection methods.

Data was collected using self-administered questionnaire that included questions on demographic characteristics, awareness of substance abuse, substances of abuse, risk factors for substance abuse, and prevalence of substance abuse. The questionnaire were pretested and modified by the researchers before commencement of the study. Pretest was conducted among a comparable group of undergraduates at the Igbinedion University, Okada, Edo State. Data collected was assessed for completeness, coded, subsequently entered and analyzed using IBM SPSS version 25.0 statistical software. Knowledge of substance abuse was assessed using 6 questions. The questions used in assessing knowledge were internally consistent with a Cronbach's alpha of 0.70. The knowledge of substance abuse among respondents was assessed using a total of six (6) questions with responses addressing all knowledge domains (Heard/awareness, definition, known substances, risk factors and adverse effect awareness). A score of 1 was given for correct response and 0 for wrong response. The maximum achievable score was 16 and a

minimum of 0. The scores were converted to percentages and grouped as follows: Good knowledge: scores  $\geq 50\%$  and poor knowledge: scores  $< 50\%$ .<sup>12</sup> Prevalence of substance use was assessed based on a single (Yes/No) question if on previous use of substances of abuse, if the respondents' answers 'yes' it is categorized as has "ever use" or "no" is categorized as "never used" substances of abuse. Data collected sorted for completeness, coded and analyzed using IBM SPSS version 25.0. Results was presented as frequency and proportion for univariate analysis while bivariate analysis to test for association of outcome variables (level of knowledge of substance use and prevalence of substance use) using chi-square and fisher's exact test. Furthermore, multivariate analysis was conducted using logistic regression modeling to identify predictors of level of knowledge and substance use among study respondent. Statistical significance was set at  $p < 0.050$  at 95% confidence interval.

Ethical clearance and approval was applied for and obtained from the Ethical Committee of the University of Benin Teaching Hospital, with ethical protocol number of ADM/E 22/A /VOL.VII/148 30191. Institutional approval at the various educational institution was also applied for and obtained before questionnaire administration. Confidentiality of respondents was assured in the study.

## RESULTS

A total of 771 respondents were studied with mean age of  $23.2 \pm 2.3$  years. Four hundred and forty-four (57.6%) of the respondents were males while 327 (42.4%) were females. Ninety-five (12.3%), 120 (15.7%), 230 (29.8%), 136 (17.6) and 190 (24.6%) were in Arts, Engineering, Law, Life science and Medicine respectively. One hundred and forty-one (18.3%), 149 (19.3%), 156 (20.2%), 149 (19.3%), 123 (16.0%) and 53 (6.9%) were in 100L, 200L, 300L, 400L, 500L and 600L respectively. The predominant ethnic groups among the respondents were Benin 185 (24.0%), Igbo 151 (19.6%), Urhobo 110 (14.3%), Esan 93 (12.1%), Etsako 53 (6.9%) and others 179 (23.2%). Five hundred and fifty-six (72.1%) were Christians while 153 (19.9%) and 62 (8.0%) practiced ATR and Islam respectively. Five hundred and eighty-one (75.4%) were from a monogamous setting while 190 (24.6%) were of polygamous settings. Four hundred and sixty-three (60.1%) lived within campus while 308 (39.9%) lived outside campus. Four hundred and seventeen (90.0%) lived in the school hostel while 46 (10.0%) lived in the quarters. Two hundred and twenty-five (29.2%) of the respondents received a monthly allowance of between N21, 000 – N30, 000.

**Table 1: Knowledge of substance abuse among respondents**

Variable	Frequency (n=683) n (%)
<b>Definition of substance abuse</b>	
Correct	508 (74.4%)
Incorrect	175 (25.6)
<b>Example of substances of abuse *</b>	
Alcohol	617 (90.3)
Tramadol	609 (89.2)
Marijuana	598 (87.6)
Cocaine	486 (71.2)
Nicotine	455 (59.0)
Codeine	431 (63.2)
Heroin	366 (46.4)
Sedatives	350 (51.2)
Amphetamine	312 (40.5)
Ecstasy	267 (39.1)
LSD	229 (35.5)
Caffeine	7 (0.9)
<b>Perceived reasons for use of substances*</b>	
Peer pressure	532 (77.9)
Depression	512 (75.0)
Cope with Stress	504 (73.8)
Performance enhancement	440 (64.4)
Anxiety	409 (59.8)
Relief pain	379 (55.6)
Curiosity	335 (49.0)
Euphoria	296 (43.3)
<b>Are there known adverse effect of substance use</b>	
Yes	628 (91.9)
No	55 (8.1)
<b>Effect of substance use (n=628)</b>	
Increased risk of health-related problems	556 (88.5)
Loss of control	398 (63.4)
Impaired judgment	353 (56.2)
Poor concentration	329 (52.4)
Poor academic performance	292 (46.5)
<b>Level of Knowledge</b>	
Good knowledge	664 (97.2)
Poor knowledge	19 (2.8)

\*Multiple responses

Six hundred and eighty-three (88.6%) of the respondents have heard of substance abuse. Majority of the respondents, 617 (90.3%), 609 (89.2%) and 589 (87.6%) were aware of alcohol, tramadol and marijuana respectively as substances of abuse. A greater number of respondents, 532 (77.9%), 512 (75.0%) and 504 (73.8%) perceived peer pressure, depression and stress respectively as the reasons for use. Six hundred and twenty-eight (91.9%) were aware of adverse effect following substance abuse with majority of the respondents who were aware, 556 (88.5%), perceiving increased risk of health-related problems as major adverse effects. In relation to level of knowledge of substance use, more than nine-tenth 664 (97.2%) of respondents studied had good knowledge of substance abuse while less than a tenth 19 (2.8%) had poor knowledge. (Table 1) In relation to factors influencing knowledge of substance use among respondents studied faculty (p=0.040), level of students (p=0.009), religion (p < 0.001) and

family structure (p < 0.001) were identified as significant factors influencing knowledge of substance use while age (p=0.594) sex (p=0.156) and monthly allowance (p=0.227) were not identified as significant factors influencing knowledge of substance use. (Table 2)

In relation to the determinants of knowledge of substance abuse, respondent's faculty and family structure were identified as significant predictors. In relation to respondent's faculty, the odds of having good knowledge of substance abuse was two times significantly lower among respondents in the faculty of law (OR=0.523; CI: 1.274-7.917; p=0.029) compared to those in the faculty of medicine. Finally, in relation to respondent's family structure, the odds of having good knowledge of substance use was eight times significantly higher among respondents from monogamous setting (OR=8.692; CI: 3.024-24.986; p<0.001) compared to those in polygamous setting. (Table 3)

**Table 2: Factors associated with knowledge of substance abuse among respondents**

Variable	Knowledge of substance abuse		Test Statistic	p-value
	Good knowledge (n=664) n (%)	Poor knowledge (n=19) n (%)		
<b>Age (years)</b>			1.043	0.594
18-22	240 (96.4)	9 (3.4)		
23-27	372 (97.6)	9 (2.4)		
>27	52 (98.1)	1 (1.9)		
<b>Sex</b>			2.014	0.156
Female	283(98.3)	14 (3.5)		
Male	381 (96.5)	5 (1.7)		
<b>Faculty</b>			15.214	0.004*
Art	72 (96.0)	3 (4.0)		
Engineering	92 (96.0)	3 (3.2)		
Law	188 (94.0)	12 (6.0)		
Life science	123 (100.0)	0 (0.0)		
Medicine	189 (99.5)	1 (0.5)		
<b>Level</b>			15.308	0.009*
100 level	118(98.3)	2 (1.7)		
200 level	122(92.4)	10 (7.6)		
300 level	123 (99.2)	1 (0.8)		
400 level	141 (97.9)	3 (2.1)		
500 level	108 (97.3)	3 (2.7)		
600 level	52 (100.0)	0 (0.0)		
<b>Religion</b>			21.342	<0.001*
Christianity	493 (98.6)	7 (1.4)		
Islam	48 (88.9)	6 (11.1)		
ATR	123 (95.3)	6(4.7)		
<b>Family structure</b>			26.696	<0.001*
Monogamous	515(99.0)	5 (1.0)		
Polygamous	149 (91.4)	14 (8.6)		
<b>Monthly allowance</b>			5.650	0.227
<N5,000	47 (7.1)	3 (6.0)		
N5,000 – N10,000	99 (99.0)	1 (1.0)		
N11,000 – N20,000	148 (95.5)	7 (4.5)		
N21,000 – N30,000	196 (97.5)	5 (2.5)		
>N30,000	174 (98.3)	3 (1.7)		

\*Statistically significance

**Table 3: Predictors of knowledge of substance abuse among respondents**

Predictors	Regression co-efficient	Odds ratio	95% CI for OR		p-value
			Lower	Upper	
<b>Faculty</b>					
Art	1.571	0.776	0.480	4.826	0.182
Engineering	1.521	0.781	0.460	4.555	0.195
Law	2.307	0.523	1.274	7.917	0.029*
Life science	1.597	1.020	0.000	-	0.996
Medicine		1			
<b>Family structure</b>					
Monogamous	-2.162	8.692	3.024	24.986	<0.001*
Polygamous		1			

**Table 4: Factors associated with prevalence of substance abuse among respondents**

Variable	Life time prevalence		Test Statistic	p-value	Recent prevalence		Test Statistic	p-value
	Ever use (n=342) n (%)	Never use (n=429) n (%)			Ever use (n=233) n (%)	Never use (n=109) n (%)		
<b>Age (years)</b>			6.529	0.038*			3.944	0.139
18-22	112 (38.5)	179 (61.5)			70 (62.5)	42 (37.5)		
23-27	202 (47.9)	220 (52.1)			146 (72.3)	56 (27.7)		
>27	28 (48.3)	30 (51.7)			17 (60.7)	11 (39.3)		
<b>Sex</b>			4.248	0.039*			0.288	0.591
Female	131 (40.1)	196 (59.9)			87 (66.4)	44 (33.6)		
Male	211 (47.5)	233 (52.5)			146 (69.2)	65 (30.8)		
<b>Faculty</b>			64.755	<0.001*			13.749	0.008*
Art	58 (61.1)	37 (38.9)			43 (74.1)	15 (25.9)		
Engineering	63 (52.5)	57 (47.5)			53 (84.1)	10 (15.9)		
Law	129 (56.1)	101 (43.9)			80 (62.0)	49 (38.0)		
Life science	30 (22.1)	106 (77.9)			16 (53.3)	14 (46.7)		
Medicine	62 (32.6)	128 (67.4)			41 (66.1)	21 (33.9)		
<b>Level</b>			3.295	0.655			2.969	0.705
100 level	79 (56.0)	62 (44.0)			39 (62.9)	23 (37.1)		
200 level	89 (59.7)	60 (40.3)			42 (70.0)	18 (30.0)		
300 level	80 (51.3)	76 (48.7)			56 (73.7)	20 (26.3)		
400 level	87 (58.0)	63 (42.0)			43 (68.3)	20 (31.7)		
500 level	64 (52.0)	59 (48.0)			37 (62.7)	22 (37.3)		
600 level	30 (57.7)	22 (42.3)			16 (72.7)	6 (27.3)		
<b>Religion</b>			60.913	<0.001*			1.240	0.743
Christianity	206 (41.2)	294 (58.8)			136 (66.0)	70 (34.0)		
Islam	33 (61.1)	21 (38.9)			23 (69.7)	10 (30.3)		
ATR	103(79.8)	26 (20.2)			74 (71.8)	29 (28.2)		
<b>Family structure</b>			20.203	<0.001*			0.701	0.403
Monogamous	231 (39.8)	350 (60.2)			154 (64.7)	84 (35.3)		
Polygamous	111 (58.4)	79 (40.6)			79 (76.2)	25 (24.0)		
<b>Monthly allowance (N)</b>			11.822	0.019*			5.878	0.208
<5,000	32 (53.3)	28 (46.7)			22 (68.8)	10 (31.3)		
5,000-10,000	37 (31.1)	82 (68.9)			22 (59.5)	15 (40.5)		
11,000-20,000	83 (45.9)	98 (54.1)			50 (60.2)	33 (39.8)		
21,000-30,000	108 (48.0)	117 (52.0)			79 (73.1)	29 (26.9)		
>30,000	82 (44.1)	104 (55.9)			60 (73.2)	22 (26.8)		
<b>Knowledge of substance abuse</b>			10.938	0.001*			0.360	0.594
Good	272 (41.0)	392 (59.0)			179 (65.8)	93 (34.2)		
Poor	15 (78.9)	4 (21.1)			11 (73.3)	4 (26.7)		

\*Statistically significant

The life time prevalence of substance use among undergraduate students studied was 44.4% (n=342) while recent prevalence of substance use was 68.1% (n= 233). Twenty-eight (48.3%) of the respondents aged above 27 years had lifetime prevalence of substance use compared to 146 (72.3%) of those aged between 23-27 years who used substance in the past six months. A significantly higher proportion 47.5% (n=211) of males compared to females 40.1% (n=131) had a lifetime prevalence of substance use (p=0.038). The lifetime and recent use of substances of abuse was significantly higher among respondents in arts and humanities compared to life sciences and medicine respectively (p=0.039). Furthermore, in relation to religion respondents who practiced ATR compared to Islam and Christianity significantly had higher lifetime prevalence of substance use (p<0.001). The lifetime prevalence of substance use was significantly higher among respondents

who hailed from a polygamous setting compared to those in monogamous setting (p<0.001). Lifetime substance use was significantly higher in relation to low monthly allowance compared to those with high monthly allowance (p=0.019). Finally, respondents with good knowledge of substance use significantly had lower prevalence of substance use compared to those with poor knowledge (p<0.001) while in relation to recent use it as not statistically significant. (Table 4)

In relation to the prevalence of substance abuse, respondent's faculty, religion, family type, monthly allowance and knowledge were identified as significant predictors. In relation to respondent's faculty, the odds of abusing substance were over two times significantly more likely to occur among respondents in the faculty of engineering (OR: 2.320; CI: 1.379 – 2.434; p=0.002) compared to those in the faculty of medicine.

**Table 5: Predictors of lifetime prevalence of substance abuse among respondents**

Predictors	Regression co-efficient	Odds ratio	95% CI for OR		p-value
			Lower	Upper	
<b>Sex</b>					
Female	-0.305	0.173	0.525	1.036	0.079
Male*		1			
<b>Faculty</b>					
Art	1.504	0.346	2.283	4.499	<0.001**
Engineering	0.890	2.320	1.379	2.434	<0.001**
Law	1.055	0.241	1.791	2.871	<0.001**
Life science	-0.528	0.296	0.330	0.590	0.075
Medicine*		1			
<b>Religion</b>					
Christianity	-2.153	0.452	0.048	0.282	<0.001**
Islam	-1.419	0.274	0.014	0.414	<0.001**
Traditionalism		1			
<b>Family structure</b>					
Monogamous	0.666	0.240	1.215	3.118	0.006**
Polygamous		1			
<b>Monthly allowance (N)</b>					
<5,000	1.168	0.375	1.541	6.707	0.002**
5,000-10,000	0.753	0.294	1.193	3.780	0.310
11,000-20,000	0.752	0.290	1.200	3.748	0.120
21,000-30,000	0.751	0.283	1.216	3.690	0.008**
>30,000		1			
<b>Knowledge of drug abuse</b>					
Good		0.235	0.075	0.740	0.013**
Poor		1			

\*Reference category \*\*statistically significant, CI = Confidence interval, OR = Odd ratio

In relation to respondent's religion, the odds of abusing substance were almost four times significantly lower among respondents who practiced Christianity (OR: 0.452; CI: 0.048-0.282; p<0.001) compared to those who practiced African traditional religion. In relation to respondent's family type, the odds of abusing substance were five times significantly lower among respondents from monogamous setting (OR: 0.240; CI: 1.215-3.118; p=0.006) compared to those from polygamous setting. In relation to respondent's monthly allowance, the odds of abusing substance were three times significantly lower among respondents whose monthly allowance was less than five thousand (OR: 0.375; CI: 1.541-6.707; p=0.002) compared to those whose monthly allowance was greater than thirty thousand. In relation to respondent's knowledge, the odds of abusing substance were five times significantly lower among respondents with good knowledge (OR: 0.235; CI: 0.075-0.740; p=0.013) compared to those with poor knowledge. (Table 5)

In relation to the determinants of recent prevalence of substance abuse respondent's faculty and family structure were identified as significant predictors. In relation to respondent's faculty, the odds of using substance were more than 4 times significantly

higher among respondents in the faculty of engineering (OR: 4.555; CI: 1.431-14.502; p=0.010) compared to those in faculty of medicine. Finally, in relation to respondent's family structure, the odds of using substance were about three times significantly lower among respondents from monogamous setting (OR: 0.354; CI: 1.148-4.827; p=0.020) compared to those in a polygamous setting. (Table 6)

## DISCUSSION

The mean age of respondents studied was typical of the young people with a higher preponderance of males. This is not unusual as undergraduate students are usually comprised of younger age group and a higher proportion of males. This gender disparity has deep socio-cultural roots and linkages especially from some parts of Africa and by extension Nigeria that still hold strong beliefs that may be inimical to female education. This finding is similar to study done among undergraduates in Rivers State<sup>13</sup> and Edo State<sup>14</sup> which showed a higher proportion of males than females. More so, a little above two-third of the respondents were from a monogamous family setting. This could be because a two-third of the respondents practiced Christianity where teaching favours

**Table 6: Predictors of six months prevalence of substance abuse among respondents**

Predictors	Regression co-efficient	Odds ratio	95% CI for OR		p-value
			Lower	Upper	
<b>Faculty</b>					
Art	0.212	1.237	0.460	3.327	0.674
Engineering	1.516	4.555	1.431	14.502	0.010*
Law	-0.323	0.724	0.353	1.483	0.377
Life science	-0.208	0.812	0.291	2.268	0.691
Medicine		1			
<b>Family structure</b>					
Monogamous	0.856	0.354	1.148	4.827	0.020*
Polygamous		1			

\*Statistically significant

monogamy compared to polygamy and also owing to the fact that the study was done in the South-South region of Nigeria which is densely populated by Christians. This is in line with a study done among undergraduate students in a tertiary institution in Delta State where about two-third of the respondents were Christians and came from a monogamous setting.<sup>15</sup>

Substance abuse is a universal and widespread public health problem globally especially among the young population. Although majority of respondents studied were aware of substance abuse, more than nine-tenth of the respondents had good knowledge of substance abuse encompassing awareness, knowledge of different substances of abuse, predisposing factors and consequences of substance abuse. This finding buttresses that majority of respondents had adequate knowledge of substance abuse, in terms of its definition, examples of substances of abuse, predisposing factors and consequences of substance use. This finding is similar to a study done among undergraduate university students in Ekiti, South-west Nigeria where majority of respondents studied were of substance abuse.<sup>11</sup> The grounds for this good knowledge could be due to increased level of sensitizations during various orientation rallies and sensitization programmes on campus, in addition to mass and social media campaigns with anti-substance abuse billboards mounted at strategic points by the university administration. This is very important from a management point of view as this could provide the needed opportunity to discourage substance use among students and staff and the attendant addiction and poor health outcomes such as poor academic performance, accidents, crime and other social vices.

Respondent's faculty was a determinant of knowledge of substance abuse. In this study, good knowledge was higher in respondents from the faculty of medicine than those from other

faculties. This could be as a result of health-related information and training they are exposed to compared to other faculty, especially in relation to the deleterious effect of substance abuse on health. This was in contrast to a study done among students in a Nigerian university in Delta State southern Nigeria where students with the least knowledge of substance abuse were from the faculty of health sciences.<sup>15</sup> Less than half of the respondents studied had lifetime prevalence of substance use. This is in contrast to studies done among undergraduate students in tertiary Institutions in Southwest Nigeria<sup>3,11</sup>, where the prevalence of substance abuse among respondents was high among students. However, just like this study, alcohol was the most commonly abused substance probably due to its ready availability and socially acceptability; so also, other substances heavily abused, which might be sourced outside school and smuggled into the school premises. This reflects the common happenings in the larger Nigerian society where access to these substances are not under strict regulation.<sup>4,16</sup> This poor regulation and enforcement of substance use in society can aid several forms of criminality and social vices especially among young people who are tomorrow leaders thus making governance and other forms of development challenging. Furthermore, respondents from the medical faculties were less likely to use substances compared to those from other non-medical faculties. This could be because of the increased knowledge and negative attitude towards substance abuse which they must have garnered over the years through their books which most times lectures on health-related effects of substance use and their daily exposure to patients who may have been treated for substance abuse and its complications. This first-hand exposure to the effect of substance use may be contributory on the low prevalence reported compared to students in pure sciences, arts and humanities This finding is in tandem with a study done among students in Imo State<sup>9</sup>,

Edo State<sup>17</sup> and Enugu<sup>18</sup> Nigeria while in contrast to a study in Rivers state that reported lower prevalence of substance use among students.<sup>13</sup> In addition, respondents from a monogamous family setting were less likely to use substance compared to other students from a polygamous family setting. Perhaps, parental bonding with children tends to be higher in monogamous family setting compared to those in polygamous setting. Thus, providing better opportunity for correction and character modelling with less opportunity for unhealthy rivalry and competition. This finding is in line with a study done among students of tertiary institutions in Imo State, Nigeria where students from monogamous family setting were less likely to use substances compared to those from polygamous family setting.

Finally, knowledge was identified as a significant determinant of substance among respondents studied as respondents with good knowledge of substance use and its effect were less likely to abuse substances possibly due to their effects and complication that can be associated with the use. Knowledge through strategic information dissemination is a veritable weapon to help curtail the menace of substance-use among the study population and young persons in general to help curtail the health and socio-economic implications. The effect of poor knowledge influencing substance use has been reported in a previous study in Rivers State Southern Nigeria<sup>13</sup>.

**Conclusion:** More than nine-tenth of the respondents had good knowledge of substance abuse. Major determinant of knowledge of substance use was the student's faculty and family structure of the respondents. Less than half of the respondents studied had lifetime history of substance use, out of which about two-third are currently using substances of abuse. Major predictors of substance use identified include faculty, religion, family type, monthly allowance and knowledge of substance use.

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