Prevalence, Sociodemograhic Characteristics and Substance Abuse among Young Persons in Edo State, Nigeria

*[1]UWAIBI, NE; [2]OMOZUWA, ES; [3]AGBONROFO-EBOIGBE, GE

*[1]Department of Community Medicine, [2]Department of Obstetrics and Gynecology, [3]Department of Internal Medicine, Edo State University, Uzairue, Edo State, Nigeria
*Corresponding Author Email: noel.uwaibi@gmail.com

ABSTRACT: Substance Abuse among youths is a major public health challenge globally. Complications associated with drug abuse include psychiatric disorders, sexual violence, drug dependence and criminal tendencies. The study set out to determine the prevalence and sociodemographic characteristics associated with Substance abuse among the young in Edo State, Nigeria. A descriptive cross-sectional study design and multi-stage sampling technique was used with a structured interviewer administered questionnaire among 412 study respondents who gave informed consent. All relevant data such as socio-demographic information, substance abuse was collected and analyzed using SPSS 23. The mean age (SD) of the study subjects was 19.03(3.09) years. The age group with the highest use of drugs was 19-22 years. Among drug abusers, male subjects (10.8%) had a higher rate of substance use compared to females (6.2%). In all, 29(8.3%) of the respondents satisfied the criteria for defining substance abuse. Cannabis was the most named substance abused accounting for 86 (20.9%) followed by alcohol and tramadol respectively (19.7% and 11.2%). Alcohol was the most commonly abused substance accounting for 17(58.6%). This was closely followed by Tramadol 41.4%. 52.4% of the respondents had no knowledge about the definition of substance abuse. About 32.3% of the subjects got information about Substance abuse from friends. The commonest reason for illegal drug use was peer influence which accounted for 50% of the respondents. Majority of the substance abusers (62.5%) who continued to abuse drugs did so because of the euphoric feeling they got from its use. Alcohol is still the most commonly abused substance among young persons in our environment as shown in this study and all effort be made the relevance authorities to control the illicit use of this substance in our society.

Keywords: abuse, psychoactive, substance, young persons

Substance abuse is the hazardous or harmful use of psychoactive substances, including alcohol and illicit drugs. (WH, 2018) Psychoactive substances are a group of substances, licit and illicit, that when ingested or administered affect mental processes. (WHO, 2018) Drug abuse among youths is increasingly becoming a public health issue worldwide. Various complications of substance abuse by young people have been noted to include personality or psychiatric disorders, risky sexual behaviors, criminal tendencies, sexual violence and drug dependence, poor academic performance, and relationship conflicts among others. Around 269 million people used drugs worldwide in 2018, which is 30 per cent more than in 2009, while over 35 million people suffer from drug use disorders (UNODC 2020; WHO, 2014) Globally, it is estimated that there are about 30 million substance users and most of these are young people. (WHO, 2018)

Overall, harmful use of alcohol is responsible for 5.1% of the global burden of disease. Globally, the harmful use of alcohol alone has been shown to result in 3 million deaths each year and at least 15.3 million persons in the world have been documented to be suffering from drug use disorders (WHO). (WHO, 2014) Harmful use of alcohol is accountable for 7.1% and 2.2% of the global burden of disease for males and females respectively. (WHO, 2014) More than 2.6 million young persons aged 10 -24 years die each year in the world. These deaths are largely due to preventable causes such as substance abuse. It is estimated that, 18% of boys and not less than 14% of adolescent girls aged 13-15 years in low- and middle-income countries are reported to have consumed alcoholic drinks. (WHO, 2012) This worrisome trend is also prevalent in Nigeria. Nigeria with its huge population of young people, ranks among one of the

Corresponding Author Email: noel.uwaibi@gmail.com

highest users of harmful drugs such as alcohol, tobacco, cannabis, benzodiazepines, cocaine, and opioids (Agwuocha et al., 2021)

Among undergraduate students in Nigeria, the rate of psychoactive substance use is reported to be far higher than what is reported among the general populace (Adamson et al., 2015; Babalola et al., 2014; Owoaje et al.,2014; Adeyemo et al., 2016) Research has shown that 69.3% of secondary school students in Igboora, Southwest, Nigeria were current users of at least one of the illicit drugs. (Lawoyin et al., 2005) Other studies in Southwest Nigeria, have shown that 58.4% - 65% of undergraduates have used psychoactive substances at one point in their life while 15.4% have reported current use. (Babalola et al., 2014; Owoaje et al.,2014) In Benin city, South-South, Nigeria 46.6% lifetime rate has been found. (Adeyemo et al., 2016) Ogunsola and Fatusi reported that about two-thirds of in-school adolescents in Osun State, Nigeria had used substances in both rural (65.7%) and urban areas (66.0%) respectively. Many studies show that alcohol is the most used psychoactive substance among undergraduates in Nigeria. Alex -Hart in a study among students in Port Harcourt, Nigeria reported that 30.6% of their respondents had ever consumed alcoholic beverages (Alex-Hart et al., 2015) In North Central Nigeria, 77% lifetime rate was found in an early study (Adelekan et al.,2015; Makanjuola et al., 2007). Similarly, varying rates have been reported for other psychoactive substances. A study in Southwest Nigeria showed that tobacco (81%) was the commonest substance used (Adekeye et al., 2015) In North Central Nigeria (Adelekan et al.,2015; Makanjuola et al., 2007). and Southeast Nigeria, varying rates of tobacco use of 3.2%-37. 5% study (Adelekan et al.,2015; Makanjuola et al., 2007). and 12.1% (Ekueme et al., 2010) were noted respectively. Marijuana use was found to be 1.4% in South-East Nigeria (Ekueme et al., 2010) while in South-West Nigeria, 20% was reported[16]. For stimulants, 45.3% and 29.1% lifetime and current use, 69.2% and 15.6% lifetime rates were reported in South-East, North Central and Southwest Nigeria respectively (Babalola et al., 2014; Adelekan et al.,2015) For sedatives, 6.1%-7.3% was found (Babalola et al., 2014; Makanjuola et al., 2007). Low use has been recorded for cannabis, organic solvents, hallucinogens, cocaine and narcotic analgesics. (Adelekan et al.,2015; Akindutire et al.,2012) Several factors have been associated with drug abuse among the youths and these include peer influence, curiosity, poor socio-economic status, the need for more energy to carry out daily activities and academic activities. Although several studies have been done in Nigeria about psychoactive drug use, the problems associated with their use particularly among the youths remain unresolved, hence the need for this study to describe the current burden of substance abuse in our study location and the socio-demographic factors associated with substance abuse among young persons in Edo State, Nigeria.

METHODS AND METHODS

The study was carried out in Ikpoba okha local government area (Upper Sapkonba), Benin City, Edo State amongst young people aged 19-35 years old. It was a descriptive cross-sectional study utilizing young persons within the selected communities in Ikpoba Okha local government area. Benin City has 3 LGA namely Egor, Ikpoba Okha and Oredo, and each of these LGAs is comprised of 10, 8 and 12 wards. A minimum sample size of 412 was calculated using the Cochran's formula for single proportion (Cochrane., 1977). A multistage sampling technique comprising of 3 stages was utilized to select the respondents.

Stage 1 was selection of Local Government Area. One LGA (Ikpoba Okha) was selected using simple random sampling technique from a sampling frame of the 3 available LGAs. Second stage was the selection of wards, simple random sampling technique by balloting was used to select 2 wards from the LGA. The third sage was selection of the communities, 2 communities was selected using the cluster sampling technique, and all the respondents within the selected cluster was used in this study. The questionnaire used in this study contained both open and closed ended questions. Data collection was done by the researcher and research assistants. Each eligible respondents provided information on socio-demographic data, knowledge of substance abuse, sources of information on substance abuse, drug commonly abused and frequency of abuse. The retrieved questionnaires were screened for completeness, coded, entered the IBM statistical package for social sciences (SPSS) 23.0 software. Characteristics of the respondents were presented in simple frequency tables (categorical data) and percentages while numerical data normal in distribution was presented as mean (standard deviation). Statistical analysis of difference between means was done using the student T-test, while test of association between the variables was done with the chi-squared (x^2-test) and when the expected cell frequencies were less than five is more than 20%, comparison of proportions was accomplished using the Fisher's exact test. Statistical significance was set at p –value <0.05.

RESULTS AND DISCUSSION

A total of 412 respondents participated in this study. The mean age was Mean age ± SD was 19.03 ± 3.09 years, with the highest proportion < 19 years.

Majority, 374 (90.8%) of the respondents were single, while 26 (6.3%) were married. A higher proportion, 296 (71.8%) of the respondents had monogamous family structure, while over half of the respondents, 218 (52.9%) had family size of 4 and above number of individuals as shown in table 1.

Table 1: Socio-Demographic Characteristics of Respondents

Variable	Frequency	Percent
Age group*	**(N=412)**	**(%)**
< 19 years	196	47.6
19-22 years	151	36.7
23-24 years	51	12.4
≥ 25 years	14	3.3
Sex		
Male	185	44.9
Female	227	55.1
Ethnic group		
Benin	172	41.7
Yoruba	65	15.8
Esan	50	12.1
Hausa	41	10.0
Igbo	39	9.5
Etsako	32	7.8
Others*	13	3.2
Religion		
Christianity	334	81.1
Islam	58	14.1
ATR	14	3.4
None	6	1.5
Level of Education		
None	18	4.4
Primary	39	9.5
Secondary	223	54.1
Tertiary	132	32.0
Marital status		
Single	374	90.8
Married	26	6.3
Windowed/Widower	1	0.2
Separated	3	0.7
Cohabiting	8	1.9
Family structure		
Monogamous	296	71.8
Polygamous	91	22.1
Separated	25	6.1
Family size group		
< 4	194	47.1
≥ 4	218	52.9

* Mean age (SD): 19.03 (3.09) years; **Others: Urhobo (1.0%), Ogoja (1.0%) Kogi (0.5%) Delta (0.5%) Cross river (0.2%)

Table 2 shows the respondents knowledge of substance abuse, about half 216(52.4%) did not know what substance abuse was while 60(14.6%) had incorrect knowledge of what it was. Cannabis was the most named substance abused accounting for 86 (20.9%) followed by alcohol and tramadol respectively (19.7% and 11.2%) while cigarettes was 13 (3.2%), friends were the major source of information 133 (32.3%) closely followed by social media 85(20.6%). From table 3, out of the 29 who abused drugs, almost all, 26 (89.7%) of respondents who have taken drugs were introduced into it by friends. The major substance abused was alcohol, with a proportion of 17 (58.6%).

Table 2: Knowledge of substance abuse

Variable	Frequency (n = 412)	Percent
Knowledge of definition		
Correct	136	33.0
Incorrect	60	14.6
Do not know	216	52.4
Knowledge of abused substances*		
Cannabis	86	20.9
Alcohol	81	19.7
Tramadol	46	11.2
Cocaine	45	10.9
Codeine	17	4.1
Cigarette	13	3.2
Others**	5	1.2
Source of information*		
Friends	133	32.3
Social media	85	20.6
Schools	27	6.6

***Others include Morphine, Paracetamol and prescription medication; *Multiple responses offered*

Furthermore, about two-fifth by proportion of the respondents, 12 (41.5%) occasionally abuse drugs. All the respondents who abuse drugs have family members who abuse drugs, with uncle being the most stated family member, 15 (51.7%) followed by brothers 11(37.1%)

Table 3: perpetrators, frequency and choice of Substance Abuse among Respondents

Variable	Frequency (n=29)	Percent (%)
Who introduced you to substance abuse	(n=29)	
Experimentation	3	10.3
Friends	26	89.7
Which substance do you abuse		
Tramadol	12	41.4
Alcohol	17	58.6
Frequency of drug abuse	(n=29)	
Occasionally	12	41.5
Once a year	9	31.0
Most times	3	10.3
Daily	2	6.9
Rarely	2	6.9
Twice a week	1	3.4
Duration of drug abuse	(n=29)	
3 weeks	1	3.5
6 months	3	10.3
7 months	3	10.3
1 year	9	31.0
2 years	12	41.4
3 years	1	3.5
Member of family a drug abuser		
No	321	91.7
Yes	29	8.3
If yes, who	(n=29)	
Uncle	15	51.7
Brother	11	37.1
Father	3	10.4

From table 4, none of the respondents who abuse drugs have ever engaged in an illegal activity to obtain drugs. However, about four-fifth by proportion, 281 (80.3%) of the respondents reside in communities where drug abuse is common. The most stated reason for abusing drugs among the respondents is peer influence, 4 (50.0%), poor academic performance 2 (25.0%). Reasons for continued drugs abuse among the respondents were feeling of being high 5 (62.5%), enhancing fearlessness 2 (25.0%) and euphoria 1 (12.5%). majority, 16 (11.4%) of the respondents who have abused substances are aged 19-22 years. More males, 17 (10.8%) have abused substances compared with females, 12 (6.2%). These associations are not statistically significant. A higher proportion, 28 (9.5%) of substance abusers are Christians. More respondents who have tertiary level of education, 12 (9.4%) have abused substance.

Table 4: Substance Abuse among Respondents

Variable	Frequency	Percent (%)
Engaged in illegal activities to obtain drugs	(n=29)	
No	29	100
Yes	0	0.0
Drug abuse common in resident community		
No	69	19.7
Yes	281	80.3
Reasons for abusing drugs	(n=8)	
Peer influence	4	50.0
Poor academic performance	2	25.0
Drug use in the neighborhood	1	12.5
Family dysfunction	1	12.5
Reasons for continued drug abuse	(n=8)	
Feeling of being high	5	62.5
Enhancing fearlessness	2	25.0
Euphoria and happiness	1	12.5

Table 5: Predisposing factors for drug abuse among the respondents

Variable	Frequency (n = 412)	percent
Family member drug abuse*		
Yes	34	8.3
No	378	91.7
Drug abuse common in community		
Yes	333	80.2
No	79	19.2
Reason for abusing drugs (n = 34)		
Peer influence	4	11.8
Poor academic performance	2	5.9
Drug use in neighborhood	1	2.9
Dysfunctional family	1	2.9

Brothers were implicated among 16 (47.1%) while 15 (44.1%) mentioned their uncles. Others indicated elder sister and father. Reasons given for continuing drug abuse included 'feeling of being high' among 5 (14.7%), 'enhancing fearlessness' among 2 (5.9%) and 'Euphoria and happiness' among 1 (2.9%).

From figure 2, majority of the respondents, 321 (91.7%) have never taken drugs for non-medical reasons, while 29 (8.3%) have taken drugs for non-medical reasons. Thirty-one (91.2%) implicated friends as the introducers to drug abuse while others 3 (8.8%) stated that they were experimented.
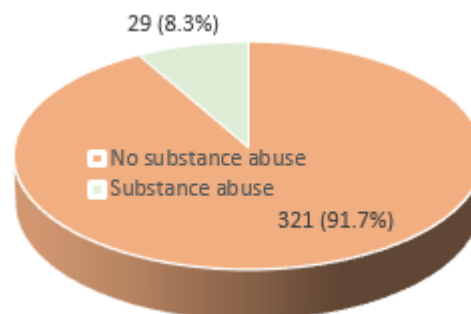

Fig 1: Prevalence of substance abuse among respondents

A higher proportion, 2 (25.0%) of the respondents who abuse substances are cohabiting, as well as being from polygamous family 9 (12.9%). Respondents from family size greater or equal to 4 are more involved in abusing substance. A higher proportion, 16 (10.0%) of the respondents who abuse drugs are still in school. These associations are not statistically significant. From table 7, most respondents who abuse substances, 7 (11.9%) have fathers who have tertiary level of education, and mothers with secondary level of education, 13 (10.8%). 8 (13.8%) of the respondents who abuse substances are resident with friends. These associations are not statistically significant. Table 8, the variables in the model accounted for between 6.4% - 14.6% of the variation observed in the outcome variable (substance abuse). A year increase in age increased substance abuse by 0.155. This was more likely by an odds ratio of 0.856, compared to those who did not abuse substances. This is not statistically significant. Determinants such as sex (OR; 0.459 CI: 0.197-1.067), level of education (OR; 1.530 CI: 0.371-3.262), family size (OR; 1.713 CI: 0.798-4.147), residence with (OR; 1.176 CI: 0.817-1.693), fathers' level of education (OR; 1.074 CI: 0.554-2.082), mothers' level of education (OR; 1.310 CI: 0.681-2.521), family member that abuses substance (OR; 0.998 CI: 0.977-1.019) and substance abuse common in resident community (OR; 3.210 CI: 0.812-7.504) are seen to be positive predictors of substance abuse among respondents. These findings are not statistically significant. Furthermore, determinants such as religion (OR; 0.527 CI= 0.130-2.134), marital status (OR; 1.155 CI: 0.770-1.733), family structure (OR; 1.109 CI: 0.539-2.281), and being school (OR; 1.176 CI: 0.207=1.312) are seen to be negative predictors of substance abuse among respondents. These associations are not statistically significant.

Table 6: Socio-Demographic Characteristics and Substance Abuse among Respondents

Variable	Substance abuse (n=350)		Test statistic (fishers' Exact)	P value
	No (n=321) Freq (%)	Yes (n=29) Freq (%)		
Age group (years)				
< 19	139 (92.7)	11 (7.3)	3.146	0.349
19-22	124 (88.6)	16 (11.4)		
23-24	44 (95.7)	2 (4.3)		
≥ 25	14 (100)	0 (0.0)		
Sex				
Male	140 (89.2)	17 (10.8)	χ^2= 2.422	0.120
Female	181 (93.8)	12 (6.2)		
Religion				
Christianity	267 (90.5)	28 (9.5)	4.502	0.179
Islam	38 (100)	0 (0.0)		
ATR	11 (91.7)	1 (8.3)		
None	5 (100)	0 (0.0)		
Level of education				
None	5 (100)	0 (0.0)	0.816	0.785
Primary	28 (96.6)	1 (3.4)		
Secondary	172 (91.5)	16 (8.5)		
Tertiary	116 (90.6)	12 (9.4)		
Marital status				
Single	291 (91.8)	26 (8.2)	4.067	2.38
Married	23 (95.8)	1 (4.2)		
Separated	1 (100)	0 (0.0)		
Cohabiting	6 (75.0)	2 (25.0)		
Family structure				
Monogamous	242 (93.1)	18 (6.9)	2.912	0.227
Polygamous	61 (87.1)	9 (12.9)		
Separated	18 (90.0)	2 (10.0)		
Family size				
< 4	163 (94.8)	9 (5.2)	χ^2= 4.149	0.042
≥ 4	158 (88.8)	20 (11.2)		
Still in school				
Yes	144 (90.0)	16 (10.0)	χ^2= 1.140	0.286
No	177 (93.2)	13 (6.8)		

Table 7: Socio-Demographic Characteristics and Substance Abuse among Respondents

Variable	Substance abuse (n=350)		Test statistic (fishers' Exact)	P value
	No (n=321) Freq (%)	Yes (n=29) Freq (%)		
Fathers' level of education	75 (97.4)	2 (2.6)	5.691	0.197
None	55 (88.7)	7 (11.3)		
Primary	123 (91.1)	12 (8.9)		
Secondary	52 (88.1)	7 (11.9)		
Tertiary	16 (94.1)	1 (5.9)		
I don't know				
Mothers' level of education	96 (95.0)	5 (5.0)	2.918	0.559
None	66 (91.7)	6 (8.3)		
Primary	107 (89.2)	13 (10.8)		
Secondary	35 (92.1)	3 (7.9)		
Tertiary	17 (89.5)	2 (10.5)		
I don't know				
Residence with				
Parents	192 (93.2)	14 (6.8)	5.353	
Guardian	21 (100)	0 (0.0)		
Alone	50 (86.2)	8 (13.8)		
Friends	37 (88.1)	5 (11.9)		
Others	21 (91.3)	2 (8.7)		

The greatest use of illicit substances was seen among those aged 19-22 years. This is in tandem reports of greater use of psychoactive substances among the younger age group (Johnson et al.,2017) with alcohol, cigarette, (Adeyemo.,2016; Adekeye et al.,2015; Johnson et al.,2017and cannabis use being more common among younger persons but cocaine, and heroin use being more common among older persons. (Johnson et al.,2017 and contrary to reports of greater use among older youths with higher substances use more among people within the age brackets of 25 and 39 years. These may be due to methodological differences, differences in substances studied, affordability and local preferences and the cordoning trend of drug use becoming menace in the society. The alcohol use in the study is slighter lower than that reported in other studies reported in a cross-sectional survey of drug use among in Imo state Nigeria that reported a rate of 86%. (Agwocha; Nwefoh, 2021) It was also lower than what has been previously reported in studies conducted in other parts of Nigeria (Adamson et al.,2015; Ekweme et al., 2010) The high prevalence of alcohol use may be related to its widespread acceptability and availability in society.

And the declining rates could be due to continuous health education in schools to curb the worsening trend of substance abuse. Cannabis was the most known substance abused drug in this study, although alcohol was found to be the most consumed. This finding is contrary to findings from studies where cannabis was the most drug abused Cannabis was the most common illicit substance used. (Adamson et al., 2015; Adelekan etal., 19992) Reasons for this may be that the society frowns at possession and consumption of cannabis by youths but is silent on the alcohol consumption thereby encouraging the youths to abuse more alcohol.

Table 8: Logistic Regression Model for the Determinants of Substance Abuse among Respondents

Predictors	β (Regression co-efficient)	Odds ratio	95 % CI for OR		p-value
			Lower	Upper	
Age	0.155	0.856	0.711	1.032	0.104
Sex	0.179	0.459	0.197	1.067	0.070
Religion	-0.461	0.527	0.130	2.134	0.369
Level of education	0.425	1.530	0.371	3.262	0.271
Marital status	-0.144	1.155	0.770	1.733	0.487
Family structure	-0.103	1.109	0.539	2.281	0.779
Family size	0.538	1.713	0.708	4.147	0.233
Still in school	-0.253	0.521	0.207	1.312	0.166
Residence with	0.162	1.176	0.817	1.693	0.384
Fathers' LOE	0.071	1.074	0.554	2.082	1.074
Mothers' LOE	0.270	1.310	0.681	2.521	0.419
Family member abuses substance	0.108	0.998	0.977	1.019	0.828
Substance abuse common in resident community	1.826	3.210	0.812	7.504	0.079

Reference category, R^2 = 6.4% - 14.6% CI = Confidence Interval

The rate of illicit substance use was slighter higher among the male students in this study this finding is similar to what was obtained in studies previously reported among undergraduates where the rate of psychoactive drug use was higher in the males in the general population in Nigeria. (Adeyemo., 2016; Ekwueme et al., 2010; Duru et al., 2017) but lower that the value obtained in the study carried out in Imo state, Nigeria where the rate was 67.7% (Agwocha; Nwefoh., 2021) This may be attributed to cultural factors which make psychoactive substance use more acceptable in males, and more opportunities for male psychoactive substance compared to females and also geographic variations in the locations the study was carried out. This is buttressed by some studies in Nigeria which found a greater rate of substance use among females. (Johnson, 2017) This may, however, be attributed to peculiarities in cultural norms and gender socialization patterns in the acceptability of psychoactive substance use by women. (Kulis et al., 2012) Peer influence is a major reason for substance use. (Johnson et al., 2017) which is like what was obtained in this study where a greater proportion of substance abuse was due to peer pressure. This could be as a result of experimentation and quest to have a sense of belonging and to be accepted by peers are part of the reasons for this. It has been reported that the influence of opposite-gender friends may be stronger than of same-gender friends especially in young adulthood, when mixed-gender relationships become more central. (Humenssky, 2010) Substance use has been found to be more among those who live with relations (parents) and lowest among those who live alone. This is contrary to studies were carried out in Nigeria. (Duru et al., 2017) where the greater proportion was found among those who live in university hostels and other locations. This high rate is far from what is expected as those who live with their relations ought to proper supervision, guidance opposed to too much freedom experienced while living alone. (Malik, 2013) More attention must be focused on the specific conditions in the hostels that could account for this difference and how to minimize them.

REFERENCES

Adamson TA et al. (2015). Descriptive national survey of substance use in Nigeria. *J. Addiction Res.Therapy.* 6 :234.

Adekeye OA et al. (2015) Assessment of alcohol and substance use among undergraduates in selected private universities in southwest Nigeria. *J. Humanities. Soc. Sci.* 20 (3): 01-07

Adelekan M; Let al. (1992) Prevalence and pattern of substance use among undergraduates in a Nigerian University. *Drug and Alcohol dependence.* 29 (3): 255-61.

Adeyemo FO et al. (2016). Prevalence of Drug Abuse amongst University Students in Benin City, Nigeria. *Public Health Research.* 6 (2): 3137

Agwuocha CM; and Nwefoh E (2021). Prevalence and correlates of substance use among undergraduates in a developing country. *Afri Health Sci.* 21(2). 875-883

Akindutire IO; Adegboyega JA. (2012) Psychoactive substance consumption and awareness of health effects among students in tertiary institutions in Ekiti state, Nigeria. *J. Emerging Trends in Educ. Res. Policy Stud.* 3(3): 257-262.

Alex-Hart BA et al (2015). Prevalence of alcohol consumption among secondary school students in Port Harcourt, southern Nigeria. *Niger J Paed.*42 (1):39–45.

Babalola EO et al. (2014). Who guards the guards: Drug use pattern among medical students in a Nigerian University. *Annals of Med. Health Sci. Res.* 4(3): 397-403.

Cochrane WG. Sampling Techniques, 3rd Edition. New York: John Wiley and Son 1977

Duru CB (2017). Socio-demographic determinants of psychoactive substance use among students of tertiary institutions in

Imo State. *Nigeria. J. Addiction Res. Therapy*. 8:345.

Ekwueme OE; Chukwuneke FN. (2010) Prevalence and behaviour effects of psychoactive substance use among university students in south-eastern Nigeria. *Ebonyi Medical Journal*. 9:1;

Humenssky JL (2010). Are adolescents with high socioeconomic status more likely to engage in alcohol and illicit drug use in early adulthood*? Substance Abuse Treatment, Prevention, and Polic*y. 5:19

Johnson OE, et al (2017). The prevalence and factors affecting psychoactive substance use among undergraduate students in university of Uyo, Nigeria. *Journal of Community Medicine and Primary Health Care*. 29 (2): 11-22

Kulis S et al (2012). Drug resistance and substance use among male and female adolescents in alternative secondary schools in Guanajuato, Mexico. *Journal of Studies on Alcohol and Drugs*.73(1): 111–119.

Lawoyin TO et al. (2005) Drug use among senior secondary school students in rural Nigeria. *Afr J Med Sci.* .34(4):355-359.

Makanjuola AB et al (2007). Psychoactive substance use among medical students in a Nigerian university. *World Psychiatry*. 6(2): 112 –114.

Maliki AE. (2013) Family background variables and Niger Delta University undergraduates' attitude towards drug abuse. *Intern.   J. Res. Social Sci.* 1: 3

Ogunsola OO; Fatusi AO (2016). Risk and protective factors for adolescent substance use: a comparative study of secondary school students in rural and urban areas of Osun State, Nigeria. *Intern. J. of Adolescent Med. and Health*.29 (3)

Owoaje ET; Bello J. (2014) Psychoactive substance use among undergraduate students of the university of Ibadan. *Nigeria. Tropical J. Health Sciences*. 17:2.

World Health Organization (2018). Management of substance abuse. Psychoactive Substance. Retrieved from www.who.int/substance_abuse/terminology/ psychoactive substances/en/.

World Health Organization, author. Management of substance use. 2012. Available on http://www.who.int/substance_abuse/facts/psychoactives/en/. Retrieved on October 12th, 2017

World Health Organization, author. Substance Abuse. 2014. [October 12th, 2017]. Available on http://www.who.int/topics/substance_abuse/en/