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Knowledge and perception of university students on drug Abuse in Delta State, South-South, Nigeria

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Abstract

Background: Drug is an essential part of health care services yet their misuse and/or abuse constitutes a very serious public health and security problem that obstructs the socio-economic development of people, especially youths in the society.

Objective: The objective of this study is to assess the knowledge and perception of drug abuse among university students in Warri, Delta State, south-south, Nigeria.

Methods: A cross-sectional survey was done over a period of 4 months using a structured questionnaire. A total of 400 questionnaires were distributed among eligible students and 273 were retrieved, sorted, and entered into a spreadsheet, the data were analyzed. Frequency distributions were carried out for socio-demographic characteristics. Chi-square and one-way analysis of variance (ANOVA) was done, as well as Post hoc analysis, and a P-value of less than 0.05 was considered significant.

Result: Most of the respondents were within the age range of 16-25 years and most of them were 100 level and 200 level students. In the study, it was seen that the highest level of education of parents of respondents is first degree, (35.6%) and (46.6%) for father and mother respectively. The findings also revealed a significant difference in all the ages (15-18, 19-22, 23-26, and 27-30 years) of the respondent in a Multiple Comparisons Turkey HSD when compared with the knowledge of drug abuse at a P-value of less than 0.00.

Conclusion: The students in the study had fair knowledge and poor perception of drug abuse. The perception of the various levels of students did not differ significantly. Health education for students and parents intervention as role models through being informed by education is recommended.

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Keywords: Knowledge; Perception; Attitude; Drug Abuse; Undergraduate students; Nigeria.

Abbreviations: FUPRE: Federal University of Petroleum Resources; KAP: Knowledge Attitude and Perception; SUG: Student Union Government; NDLEA: National Drug Law Enforcement Agency; UNODC: United Nations Office on Drugs and Crime; GAP: Global Assessment Program; NHIS: National Health Insurance Scheme.

Introduction

The world's history of drug use is not only as old as the ancient culture of man but a fundamental part of human existence [1] and, with this fact the Food and Drug Administration (FDA) defined a drug as any substance intended for use in the diagnosis, cure, mitigation, treatment, or prevention of diseases [2]. As such, drugs can inevitably be abused if not carefully used for the intention that it is meant. The term drug abuse refers to any drug, used for recreational or pleasure purposes, which is currently disapproved of by the majority of the members of a society [3]. There are over 190 million drug users around the world and the challenge of drug abuse is a global phenomenon, especially among young adults under the age of 30 [4].

Globally, about 269 million people used drugs in 2018 and over 35 million people suffer from drug abuse [5], while cannabis is the most abused and popular hard drug universally. It is estimated that about 192 million people abuse cannabis worldwide yet the number of death recorded in the use of opioids remain the highest as the total number of deaths due to opioid use disorders is as high as 71%, with a 92% increase among women compared with 63 % among men [4-6]. In developing countries, drug abuse has increased far more rapidly over the years [4], like in the global record, the highest population of drug abusers occurs among adolescents and young adults [7]. Cannabis is also the most widely used illicit substance in the West African Region [4] where the highest prevalence and increase in use were reported in West and Central Africa with an increase in rates between 5.2% and 13.5% [8].

Recently, drug abuse among adolescents and young adults in Nigeria is disheartening and worrisome and has become a threat to security [9-12], where over 11% of the youth population in Nigeria take hard drugs like codeine syrup, tramadol, diazepam, cocaine, shisha mix among others [12]. In the long run drug abuse reduces self-control and increases the chances of one engaging in risky behaviors, such as unsafe sex, violence, crime, or dangerous driving [6,9].

A rapid situation assessment of the drug problem in Nigeria conducted by the National Drug Law Enforcement Agency (NDLEA) in collaboration with the United Nations Office for Drugs and Crimes (UNODC) revealed that the group most at for drug abuse are students, unemployed, and street children [13]. Also, several studies have reported a high rate of drug abuse and misuse amongst adolescents and youths, especially among students (secondary and tertiary institutions) [14-16].

Several studies have assessed the knowledge and perception of drug abuse among students [17-19] but none have been conducted among students in tertiary institutions in Delta State, Nigeria. Therefore, it is imperative that having a vast understanding of students' knowledge and perception of drug abuse is vital to the design of appropriate intervention programs to curtail the abuse of drugs among adolescents.

Method

Study setting

The study was conducted at the Federal University of Petroleum Resources (FUPRE), Delta State. Federal University of Petroleum Resources (FUPRE) is located in the Uvwie Local

Government Area of Delta State. It has a combined landmass of 163.151 km Sq. but before the inception of the university, the site was predominantly a forest interspaced with farmlands for subsistence farming. The university is made up of two colleges which are the college of science and the college of technology and the two colleges have a total of fourteen departments.

Study design

The study was a cross-sectional study carried out among students of FUPRE Delta State using a structured questionnaire that assessed the knowledge and perception of drug abuse among university students in Warri, Delta State, South-South, Nigeria.

Eligibility criteria

The inclusion criteria were students of FUPRE who registered for the 2019/2020 academic session. The students who declined to participate were excluded from the study.

Sample size

As of the time of the survey, according to the information from the academic division of FUPRE, there were 3677 registered students in the 2019/2020 academic session. The students comprised 2937 regular students; 420 foundation students, and 320 pre-degree students respectively. Using a sample size calculator [20], the number of students in the school and assuming a confidence interval of 95%. A sample size of 385 students was considered appropriate for the study. To account for possible refusals and inappropriate filling of the questionnaires, an attrition rate of 20% of the calculated sample was added to give a total of 400 students.

Research instrument and validation

A 28-item questionnaire was adapted, validated, and used for the study. The structured questionnaire was adapted from previously published work by Nahid et al., in 2014 [21]. The adapted questionnaire comprises five different sections. The first section includes ten [10] questions that addressed the respondent's socio-demographic characteristics. The second section consists of five [5] questions that focused on the frequency of drug use. In the third section four [4] questions assessed the student's knowledge of drug use. The last section assessed the perception of the students toward drug abuse.

The study instrument was independently face validated by five healthcare personnel, three lecturers in academia one from the Department of Clinical Pharmacy and Pharmacy Management, Nnamdi Azikiwe University, Awka, two from FUPRE, one hospital pharmacist staff, and one staff of National Drug Law Enforcement Agency (NDLEA) in Delta state. The study instrument was then tested feasibly in a pilot study on 10% of the total sample size calculated from the population given by the Academic planning unit of the University. The students filled out the questionnaire and handed them back the same day. The retrieved questionnaires were coded and entered into SPSS 23 and the internal consistency of the questions was checked using Cronbach's alpha (CA) with an alpha value of 0.70 was obtained. The corrected item-total correlation value of ≥ 0.3 was retained. The result from the pilot study was used to make the corrections and a total of four questions were deleted, this

reduced the question to 24 items. Those who participated in the pilot study did not take part in the main study.

Ethical issues

Ethical approval to conduct the study was obtained from the research and ethics division of the Federal University of Petroleum Resources Effurun (Ref. FUPRE/UHC/R/AKN/003). Informed consent was obtained from the students before they participated.

Data collection

The sequential quantitative data collection method was used from June to September 2017. This involved the use of a questionnaire that was gradually distributed to students during lecture times at the university. The questionnaires were collected later after they were filled by the students. The questionnaire took an average time of 8 minutes for each student to answer the questions.

Data analysis

Out of 300 questionnaires given out, 273 were returned. The retrieved questionnaires were sorted and examined for quality and accuracy before data analysis. Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 20. Frequency distributions were carried out for socio-demographic characteristics. Chi-square and one-way analysis of variance (ANOVA) was done, as well as Post hoc analysis, and a P-value of less than 0.05 was considered significant.

Results

The demographic characteristics of the respondents indicated that most of the respondents were between the age ranges of 23-26 years and are mostly in 100L (32.5%) and 200L (39.6%). The majority of the parents of the respondents have a first degree as the highest level of education (35.6% and 46.8%) for their fathers and mothers respectively. Most of the respondent's parents were government employees.

Knowledge of some drugs of addiction showed that 54.5% of the respondents had consumed alcohol in the last 12 months. While only 19 % responded that they smoked cigarettes in the last 30 days. The most popularly consumed drugs were alcohol among those that reported that they have never tasted marijuana cocaine, LSD, Solvent, and amphetamine (Table 2).

More than half of the respondents (64.5%) reported that they have heard about tranquilizers or sedatives but only 35.5% are aware that they can cause addiction. Only 44.3% of the respondents have ever heard of ecstasy for the first time while the most popular drug amongst the respondents was marijuana were a majority (80.2%) reported that they have heard of the drug for the first time but only 46.9 knows it can cause addiction (Table 3).

Table 1: Demographic characteristics.

Variables	n (%)
Gender	
Male	227 (83.2)
Female	46 (18.6)
The age range in years	
15-18	3 (1.1)
19-22	123 (45.1)
23-26	130 (47.6)
27-30	12 (4.4)
31 years and above	5 (1.8)
Academic level	
Pre-degree	3 (1.1)
Foundation	8 (3.0)
100L	87 (32.5)
200L	106 (39.6)
300L	19 (7.1)
400L	16 (6.0)
500L	28 (10.4)
Father's highest level of education	
Uneducated	7 (2.6)
Primary School	17 (6.4)
Secondary School	38 (14.2)
Higher institution	168 (66.7)
I don't know	27 (10.1)
Mother's highest level of education	
Uneducated	9 (3.4)
Primary School	22 (8.2)
Secondary School	48 (18.0)
Higher institution	156 (58.4)
I don't know	32 (12.0)
Father's occupation	
Unemployed	5 (2.0)
Self-employed	96 (38.1)
Government Employee	120 (47.6)
Private Sector employee	0 (0.0)
Retired	31 (12.3)
Mother's occupation	
Unemployed	19 (7.6)
Self-employed	126 (50.2)
Government Employee	94 (37.5)
Private Sector employee	0 (0.0)
Retired	12 (4.8)

Table 2: Pattern of drug use.

Number of times	n (%)
Alcohol	
The first time you ever tasted	53 (22.4)
Life time use	95 (53.1)
Last 12 months	102 (54.5)
Last 30 days	70 (38.9)
Never tasted	84 (46.9)
Cigarette	
The first time you ever tasted	7 (3.0)
Life time use	37 (19.7)
Last 12 months	37 (20.1)
Last 30 days	24 (13.5)
Never tasted	151 (80.3)
Marijuana (Indian hemp)	
The first time you ever tasted	11 (4.6)
Life time use	32 (13.7)
Last 12 months	16 (9.8)
Last 30 days	11 (7.0)
Never tasted	202 (86.3)
Tranquilizers or sedatives	
The first time you ever tasted	6 (2.5)
Life time use	9 (4.1)
Last 12 months	4 (2.7)
Last 30 days	3 (2.0)
Never used any of the above	209 (95.9)
Amphetamines	
The first time you ever tasted	0 (0.0)
Life time use	4 (1.9)
Last 12 months	3 (2.0)
Last 30 days	2 (1.4)
Never tasted	214 (98.2)
Ecstasy	
Ever tasted	0 (0.0)
Life time use	8 (3.8)
Last 12 months	7 (4.9)
Last 30 days	4 (2.8)
Never tasted	204 (96.2)
LSD	
The first time you ever tasted	0 (0.0)
Life time use	1 (0.5)
Last 12 months	1 (0.7)
Last 30 days	1 (0.7)
Never tasted	211 (99.5)
Cocaine	
The first time you ever tasted	0 (0.0)
Life time use	7 (3.2)
Last 12 months	4 (2.7)

Last 30 days	3 (2.0)
Never tasted	214 (96.8)
Heroin	
The first time you ever tasted	0 (0.0)
Life time use	4 (1.9)
Last 12 months	1 (0.7)
Last 30 days	2 (1.4)
Never tasted	207 (98.1)
Solvent inhalants	
The first time you ever tasted	0 (0.0)
Life time use	8 (3.8)
Last 12 months	6 (4.2)
Last 30 days	4 (1.8)
Never tasted	203 (96.2)

Table 3: Knowledge about some drugs.

Know/heard about	n (%)
Tranquilizers or sedatives	
Yes	142 (64.5)
No	78 (35.5)
Can cause addiction	69 (25.3)
Marijuana /Indian Hemp	
Yes	202 (80.2)
No	50 (19.8)
Can cause addiction	128 (46.9)
Ecstasy	
Yes	93 (44.3)
No	117 (55.7)
Can cause addiction	61 (22.3)
LSD	
Yes	69 (34.7)
No	130 (65.3)
Can cause addiction	36 (13.2)
Cocaine	
Yes	193 (79.1)
No	51 (20.9)
Can cause addiction	165 (60.4)

In table four, the effect of socio-demographic characteristics on drug abuse shows that some of the male respondents 46.2% know about the health risk of drug abuse against the 40.2% of females in the study. All the ages (15-18, 19-22, 23-26, and 27-30 years) of the respondents in a Multiple Comparisons Turkey HSD against the knowledge of drug abuse revealed a significant p-value less than 0.00. Again knowledge of forms of drugs was also significant at a p-value of 0.00 in a one-way analysis of variance for all the age groups. The knowledge score of the 200L students was significant for all the complications of drug abuse at a p-value of 0.00.

Table 4: Effect of socio-demographic characteristics on knowledge of drug abuse.

Demographic Characteristics		Ever heard about hard drugs	The knowledge that hard drugs can cause addiction	Knowledge of health risks of drug abuse	Knowledge of signs of drug abuse	Knowledge of complications of drug abuse	Knowledge of forms of drugs abuse	P-value (POST HOC)
Gender								
Male		48.5 (35.1)	27.9 (27.6)	52.3 (46.2)	27.3 (32.7)	49.1 (43.1)	31.4 (29.8)	
Female		55.43 (34.8)	31.62 (33.6)	63.1 (40.2)	24.6 (32.5)	42.8 (44.3)	32.6 (35.4)	
	P values* (T-TEST)	0.22	0.43	0.14	0.61	0.37	0.81	
Age								
15- 18 years		50.0 (16.7)	24.2 (34.4)	41.2 (64.7)	11.1 (19.2)	11.1 (19.2)	14.8 (25.6)	0.01
19-22 years		51.1 (33.5)	28.1 (28.3)	53.7 (44.3)	28.7 (33.4)	52.9 (42.8)	32.9 (31.5)	0.001
23-26 years		47.8 (36.2)	29.7 (28.7)	53.6 (46.9)	25.6 (31.7)	45.1 (43.7)	29.6 (29.2)	0.00
27-30 years		41.6 (34.5)	41.8 (45.7)	65.9 (40.3)	13.9 (22.2)	33.3 (42.6)	21.3 (22.9)	0.001
31 years and above (control)								
	P values# (ONE WAY ANOVA)	0.29	0.49	0.10	0.20	0.20	0.00*	
Level								
100L		42.5 (34.4)	26.8 (25.5)	71.6 (29.6)	30.6 (32.6)	37.9 (36.5)	35.12 (30.4)	0.12
200L		50.5 (34.3)	29.0 (30.7)	73.8 (25.2)	21.38 (30.2)	31.1 (35.3)	23.9 (27.9)	0.00
300L		55.3 (39.7)	36.8 (33.0)	59.8 (26.7)	36.8 (38.3)	35.3 (34.5)	28.6 (31.9)	0.08
400L		46.9 (37.1)	31.3 (26.3)	75.0 (25.6)	29.2 (29.5)	55.4 (31.7)	38.9 (26.9)	0.53
500L		54.8 (32.0)	27.0 (27.4)	72.2 (30.15)	19.1 (27.9)	35.2 (34.9)	34.1 (31.1)	0.18
Non-regular students (control)								
	P values# (ONE WAY ANOVA)	0.12	0.82	0.24	0.10	0.22	0.20	

Table 5: Perception of students on vices associated with drug abuse.

Vices associated with drug abuse	Never	Yes, because of alcohol use	Yes, because of drug abuse	Yes, but for other reasons
Quarrel or argument	61 (25.5)	9 (3.8)	4 (1.7)	165 (69.0)
Scuffle or fight	97 (42.7)	9 (4.0)	6 (2.6)	115 (50.7)
Ever had an accident or injury	72 (30.9)	9 (3.9)	8 (3.4)	144 (61.8)
Lost money or valuable items	56 (24.5)	15 (6.6)	7 (3.1)	131 (65.9)
Damage to objects or clothing	76 (33.2)	17 (7.0)	6 (2.6)	131 (57.2)
Problems in relationship with parents	110 (47.6)	9 (3.90)	14 (6.1)	98 (42.4)
A problem in relationship with friends.	79 (34.1)	17 (7.3)	9 (3.9)	127 (54.7)
Performed poorly in school or work.	101 (44.1)	10 (4.4)	9 (3.9)	109 (47.6)
Victim of robbers or thieves	145 (63.0)	11 (4.8)	5 (2.2)	69 (30.0)
The trouble with the police.	167 (72.9)	7 (3.1)	12 (5.2)	43 (18.8)
Hospitalized or admitted	129 (56.1)	7 (3.0)	4 (1.7)	90 (39.1)
Regrettable sexual affair	161 (70.3)	12 (5.2)	9 (3.9)	47 (20.5)
Unprotected sex	153 (71.5)	10 (4.7)	8 (3.7)	43 (20.1)

Problems with either parents or friends were the major perceived problem experienced by students who engaged in drug abuse (7.3%). Finally, most of the reported that they have never engaged in any negative vices (Table 5).

Discussion

The study assessed the knowledge and perception of

students in Federal University of Petroleum Resources (FUPRE) Effurun, Warri, Delta State, South-South Nigeria, on drug abuse. On average, the students have a fair knowledge of drug abuse. The findings showed that the students had a good knowledge of drug abuse but had a very poor perception of its link to social vices. This study showed that most of the students knew of Marijuana/Indian hemp but only a few of them were aware that

the drug can cause addiction. A similar pattern was also in their knowledge of the drug cocaine. Less than half of the respondents knew of tranquilizers or sedatives but only one-third had good knowledge about their addictive ability. This finding is similar to what was observed in a study among students in a public school in Lagos, Nigeria, where a fair knowledge of drug abuse amongst the students was observed [17]. However, another study showed that the knowledge of drug abuse in high school was poor [22].

Alcohol had the highest prevalence rate and is usually the first drug ever tried as reported in this study. This is in contrast to a study among University of Benin students which indicated the highest drug consumed by the students was coffee [23] and also in contrast to similar research done in Yola, Adamawa State, Nigeria by Tasiu in 2020, where it was observed that tramadol tablets (52.8%) were the most abused drug among youths [24].

Poor teacher/parental upbringing, and peer influence [23], was given by the students of the University of Benin as their reasons for engaging in drug abuse, similar to our findings in this study. This emphasizes the need for parents to be more involved in children's upbringing as against the present situation in which parents leave their duties as role models/parents to house helps and nannies. In contrast to this study, in similar research done in Yola, Adamawa State, Nigeria by Tasiu in 2020, it was observed that tramadol tablets (52.8%) were the most abused drug among youths [24].

It is of interest to point out that the Chi-square test revealed that there is a relationship between the prior knowledge of drug abuse and gender, and age respectively (Table 4), and also, using Multiple Comparisons Turkey HSD as Post-Hoc Test for ANOVA test for various facets of knowledge of addictive drugs against the age indicates that significant differences exist between the various age groups as per the knowledge of forms of drugs with mean values 86.67 (for 31-35 years) greater than all other age groups with mean values as 14.81 (10-15 years); 32.88 (16-20 years); 29.57 (21-25 years); 21.30 (26-30 years) respectively. This means that age has an impact on the knowledge, and perception of the participants' with older students having more knowledge about the forms of the drug. The above finding is supported by this report by the National Institute of drug abuse that drug abuse is highest among people in their late teens and twenties (18 to 20 years) [25].

The gender of respondents had no significance to their knowledge and perception of drugs of abuse in this study. This is in contrast to a study by Zolala et al., (2016) in Iran on the pattern of drug use in males and females in which the study showed that there exists a significant difference in drug use patterns between the genders [26]. Also, in contrast to our study, a survey by the Substance Abuse and Mental Health Services Administration in 2002 reported differences in the consumption pattern of substances of abuse according to gender [27]. However, a cross-sectional study by Gatins and White in 2006 revealed that no significant difference exists in drug use among the different genders in the high school students in the USA [28]. This finding is similar to what was observed in this study among the students of FUPRE in Delta State Nigeria

Drug abuse can adversely limit the academic and social well-being of students leading to poor academic performance, examination malpractice, and involvement in social vices among others. The perception of the students in this study on the vices

that are cursed by drug abuse was very poor (Table 5). Many of them experienced these vices but did not link them to their involvement in drug abuse but other reasons. A study by Tasiu in [24], has linked drug abuse to students' poor performance in school and involvement in social vices. Many problems in the relationship between the students and their parents were linked to the students' involvement in drug abuse as seen in this study.

Conclusion

The students of the Federal University of Petroleum Resources (FUPRE), Delta State had good knowledge of drugs/ substances of abuse and poor perception of drugs being responsible for most of the social vices studied. There is a need for interventions to educate the students and create awareness of the damaging effects of involvement in drug abuse. Also, there is a need for improvement in the enforcement of legislation guiding the sale of drugs of abuse and monitoring drug use.

Limitations

The study was conducted only at the Federal University of Petroleum Resources (FUPRE), Delta State, and may not be generalized.

Recommendations

The institution can make interventions like adding drug abuse studies in their curriculum on the compulsory general studies. Health education and awareness programs on drug abuse and its effects should be undertaken by the National Health Insurance Scheme (NHIS) as part of their health packages for university students. This study should be conducted in other universities in South-South Nigeria and other geo-political zones of the country.

Declarations

Competing interests: The authors declare that they have no competing interest.

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