



Prevalence and Pattern of Psychoactive Substance use among Senior Secondary School Students in Community Secondary School, Umuna, Orlu L.G.A

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Psychoactive substance use among Secondary School Students has become an increasing public health problem in many countries. This study assessed the prevalence and patterns of psychoactive substance use among senior secondary school students of community secondary school, Umuna. This is a descriptive cross-sectional study in which a sample size of 231 students was selected using simple random sampling technique. The instrument for data collection was questionnaire and data collected were analyzed using descriptive and inferential statistics and presented using tables. The study revealed that alcohol and tobacco were the most commonly abused substance. It also revealed that more than half (51.1%) of the respondents use substance on a daily basis and smoking and sniffing were the most common patterns used. Factors influencing substance use included; peer group pressure and family background. There is a psychoactive substance. It was recommended that Government should ensure the enforcement of anti-psychoactive substance laws and health workers should be trained on how to identify addicts, prevent, and treat victims of drug abuse.

Keywords: Prevalence; pattern of psychoactive substance use; secondary school; students.

1. INTRODUCTION

For several centuries, psychoactive substances have been widely used all over the world for various reasons. Alcoholic beverages for example, have played significant social, economic, political and traditional roles in many civilizations in Europe, America, and Africa. Several other psychoactive substances have been used in societies for one medicinal purpose or the other. Cannabis use for its medicinal properties is believed to have started in China over 4000 years ago. Despite the medicinal benefits of some psychoactive substances and their social acceptability, they are related to some undesirable health, social, legal, and economic outcomes [1].

Psychoactive substance use among secondary school students has become an increasing public health and social problem in many countries. It is the non-medical self-administration of a substance to produce mood changing effect, intoxication, or altered self-image, despite the knowledge of its potential side effects. One major consequence of substance use is dependence and addiction. Substance use is a major public health problem all over the world [2].

Psychoactive substances could modify the moods, behaviours and judgment of such users with possible diverse toxic effects. Generally, substance use predates modern history and is widespread in many African countries, including Nigeria where tobacco and alcohol act as “gateway drugs” to life use of other substances. High rates of substance abuse in Secondary School student populations have been reported [3].

In 2011, it was estimated that 167 to 315million people aged 15 to 64 years globally had used an illicit substance in the preceding year. The estimated global burden of alcohol and illicit drugs use is 5.4% while tobacco is 3.7%. A national survey of substance use conducted among 10,609 Nigerians aged 15-64years in the six geopolitical zones of the country recorded a lifetime prevalence of 39% for alcohol, 6.6% for cannabis, and 12.2% for cigarettes. In Nigeria, the most common types of substances used include; stimulants and amphetamines such as caffeine, tobacco, nicotine; hallucinogens such as marijuana and narcotics such as

heroin and codeine. Others include alcohol and sedatives [3].

Tobacco accounts for 8.8% (4.9million) deaths, and 4.1% (39.1million) of Disability Adjusted Life Years (DALYs), while illicit drugs such as opioids 0.4% of death and 0.8% of DALYs. Alcohol and tobacco are often the first to be initiated of all psychoactive substances. Alcohol is the most widely used psychoactive substance across the globe accounting for 90.8%. Except for the United States of America, Brazil, Mexico, Denmark and Spain where cannabis use ranked second, tobacco is the second most commonly consumed drug in most countries including Nigeria [1].

Psychoactive substance use and dependence cause a significant burden to the individuals and societies throughout the world. The World Health report [4] indicated that 8.9% of the total burden of disease comes from the use of psychoactive substances. The report showed that tobacco accounted for 4.1%, alcohol 4%, and illicit drugs 0.8% of the burden of disease in 2010. Much of the burden attributable to substance use and dependence is the result of a wide variety of health and social problems. Data from the [5] show large scale seizures of cocaine, heroin, cannabis, and amphetamine-type stimulants in different parts of the world. Psychoactive substance use is a social problem that has spread and increased rapidly in educational institutions especially among secondary school students. This social problem is considered as an issue of serious concern as it adversely affects the lives and performance of students involved as well as the harmonious functioning of the entire structure of the society [6].

The abuse of several classes of psychoactive substances has been remarkably in the increase globally in recent times. In a bid to stop the tide of this multidimensional malady, many countries have resorted to prescribing capital punishment for convicted drug traffickers [7].

Psychoactive substances are drugs that alter both internally perceived mental states such as mood and externally observable activities such as behaviour. Alcohol and tobacco use account for 5.4% and 3.7% of total burden of disease respectively. This underscores the seriousness of the burning global issue of drug abuse. The rapid economic, social and cultural transitions

that most countries in Sub-Sahara Africa are now undergoing have provided a favourable climate for increased maladaptive use of psychoactive substances [7].

The consequences of drug abuse on the individual, family and society are innumerable and have psychosocial, physical and economic dimensions. It is a significant cause of mortality; it robs the youth of initiative, hinders fulfillment of one's life goals and disrupts the family [7].

Heavy use of alcohol has been found to be associated with all risky sex behaviours, violence and HIV transmission. Factors that may predispose to drug use in students include academic pressure, peer pressure, easily accessibility and unhealthy family background [1].

1.1 Purpose and Objectives of the Study

The main purpose of the study is to determine the prevalence and pattern of psychoactive substance use among Community Senior Secondary Students in Umuna, Orlu LGA of Imo State.

2. METHODOLOGY

2.1 Research Design

The study adopted a descriptive survey design and describes the prevalence and patterns of substance use among community secondary school students in Umuna, Orlu L.G.A, Imo State.

2.2 Setting/Description of Area of Study

The study carried out in community secondary school, Umuna Orlu L.G.A Imo State in Eastern Nigeria.

Umuna has common boundary with Owerri-Ebeiri, coming from Owerri, one joins Umuowa road straight to car wash junction leading upwards to IMSUTH, Orlu. It also has common boundary with Amaifeke; coming from banana junction, one moves downward through Amaifeke road to Umuna.

Umuna is bounded in the North by IMSUTH, in South by Orlu girls' secondary, at the East by a popular market called "old market" and the West by army barracks and federal road safety corps.

Orlu L.G.A served as headquarter for humanitarian relief agencies during the Nigeria, civil war, therefore now recognized as homeland for many Igbo people of Nigeria. This L.G.A is known to host majority of government establishments and institutions among others are the IMSUTH, international market, Imo College of Nursing and Health Technology. Majority of the people in the L.G.A are business men and politicians.

2.3 Target Population

The target population for this study is the entire senior secondary student in community secondary school in Umuna, Orlu. The population consists of both boys and girls. The total population was 551 students, from SS1 1 and 2, SS2 172 and SS3 197 students.

2.4 Sample and Sampling Technique

The researcher determined the sample size using Yaro Yamane's formula (1967), which is stated as follows;

$$n = \frac{N}{1 + N(e^q)^2}$$

Where n = sample size

N = population

E^q = level of significance = 0.05

The sample size of 231 students was chosen from the target the population of 551 students.

Purposive sampling procedure was used to select community secondary school Umuna, as area of study. Simple random sampling method was used to select 231 students from 551 total populations for the study.

2.5 Instrument for Data Collection

The instrument used to collect data was a self-structured close ended questionnaire. It consists of four sections, section A, B, C and D. Section A contains 3 questions on demographic variable, section B contains 4 questions on the substances commonly used, section C contains 2 questions on the patterns of substance use and section D 2 questions on the characteristics of students who use drugs among senior students of community secondary school Umuna.

2.6 Validity of Instrument

The questionnaire, the researcher’s instrument for data collection was critically checked by the researcher’s supervisor and appropriate corrections were made to endure accurate result before it was administered to the respondents.

2.7 Reliability of the Instrument

The reliability of the instrument was determined using a test re-test method conducted in a pilot study. 16 copies of the instrument were administered to 16 secondary school students (8 males and 8 females).

The questionnaires were administered on two occasions with interval of 6weeks in other schools. Pearson correlations were used to correlate the two sets of data and a correlation coefficient of 0.82 was obtained. Based on this the instrument was considered adequate for the study.

2.8 Method of Data Collection

Face to face method was adopted in distribution of the questionnaires. The researcher introduced herself to the respondents and explained the nature and purpose of the study. The questionnaires were administered to the students on a spot in the classroom and allowed to fill

them without distraction. The researcher ensured confidentiality of the respondents.

The researcher administered 231 copies of the questionnaire personally, although the entire questionnaire was not shared the same day. The researcher made sure she went to the respective classes to avoid confusion. All 231 copies of the questionnaires were retrieved by hands within 3days.

2.9 Method of Data Analysis

Data generated for the study were analyzed using both descriptive and inferential statistics. The analysis included descriptive statistics of frequency counts and their percentages, tables, inferential statistics including chi-square to test the hypothesis or answer research question.

3. RESULTS

Two hundred and thirty one (231), questionnaires were distributed. Two hundred and twenty three (223) of the questionnaires were analyzed, while 8 were not properly filled. This gave a response rate of 96.5%.

Section A: Demographic data.

Result on Table 1 shows that male respondents were 132 (59.2%), while female were 91(40.8%).

Table 1. Respondents’ demographic characteristics n=223

Characteristics	Frequency	Percentage
Sex		
Male	132	59.2%
Female	91	40.8%
Total	223	100
Age bracket		
10-13years	98	43.9%
14-17years	76	34.1%
18-21years	31	13.9%
Above 21years	18	8.1%
Mean age = 15.5	223	100
Class		
SS 1	74	33.2%
SS 2	68	30.5%
SS 3	81	36.3%
Total	223	100

Table 2. To establish the substances commonly used among the senior secondary school students of community secondary school, Umuna, Orlu

Characteristics	Frequency	Percentage
Have you received any Information on Substance use?		
Yes	219	98.2%
No	4	1.8%
Have you ever smoked, Sniffed, chewed, drunk Is taken any alcohol, Tobacco, cannabis, cocaine, Amphetamine, hallucinogen, Heroin?		
Yes	217	97.3%
No	6	2.7%
Which of the following Substances have you used?		
Alcohol	189	84.6%
Tobacco	56	25.1%
Cannabis	17	7.6%
Cocaine	5	2.2%
Heroin	3	1.3%
Amphetamines	31	13.9%
Hallucinogen	10	4.5%
How old were you when You first used any of the Above mentioned substances?		
Below 10years	37	16.6%
10-14years	42	18.8%
15-19years	76	34.1%
20years and above	68	30.5%

Their age ranges between 10 and above 21 years with a mean age of 15.5years, 98(43.9%) of the respondents were between the ages 10-13years, 79(34.1%) fall in to the age bracket 14-17years, 31(13.9%) of the respondents fall into the age bracket 18.21years and 18(8.1%) were above 21years old.

Respondents in SS1, SS2 andSS3 constituted 74(33.2%), 68(30.5%) and 81(36.3%) respectively.

Result on Table 2 shows that 219(98.2%) respondents have received information on substance use, while 4(1.8%) have received no information.

217(97.3%) respondents have smoked, sniffed, chewed, drunk or taken substance while 6(2.7%) of the respondents have not.

The above table shows that majority 189(84.6%) of the respondents have used alcohol, 56(25.1%) use tobacco, 17(7.6%) use cannabis, 5(2.2%) use cocaine, 3(1.3%) use heroine, 31(13.9%) use amphetamine and 10(4.5%) use hallucinogens.

The age of the respondents first use of the above mentioned substance was, 37(16.6%) below 10years, between 10-14years 42(18.8%), between 15 to 19years 76(34.1%) and 68(30.5%) for 20years and above.

Therefore, over all prevalence of substance use is 19.9%.

The above Fig. shows the pattern of substance use among the respondents. 112(50.2%) sniff or snort, 177(79.4%) smoke, 26(11.7%) inject and 9(4.0%) use substances orally (by mouth).

From the figure above, this implies that 116(52.9%) respondents use substance on a daily basis 34(15.2%) use substance more than once a week, 55(24.7%) are weekly 18(8.12%) use the above mentioned substances several times a week.

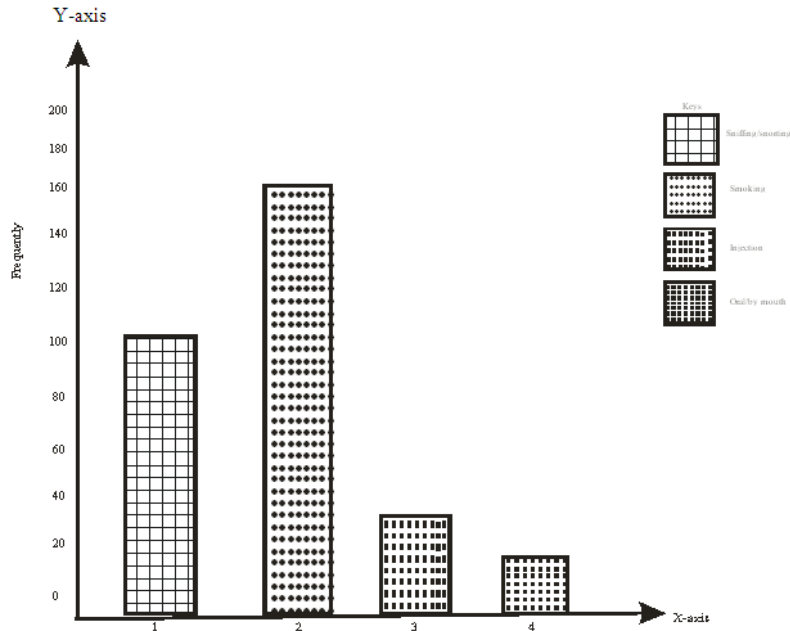


Fig. 1. Methods or patterns for taking the above mentioned substances

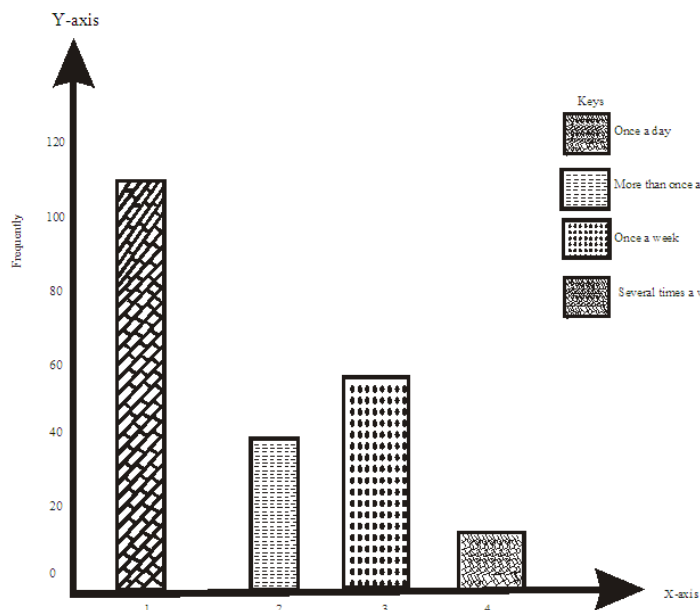


Fig. 2. How often do you use drugs?

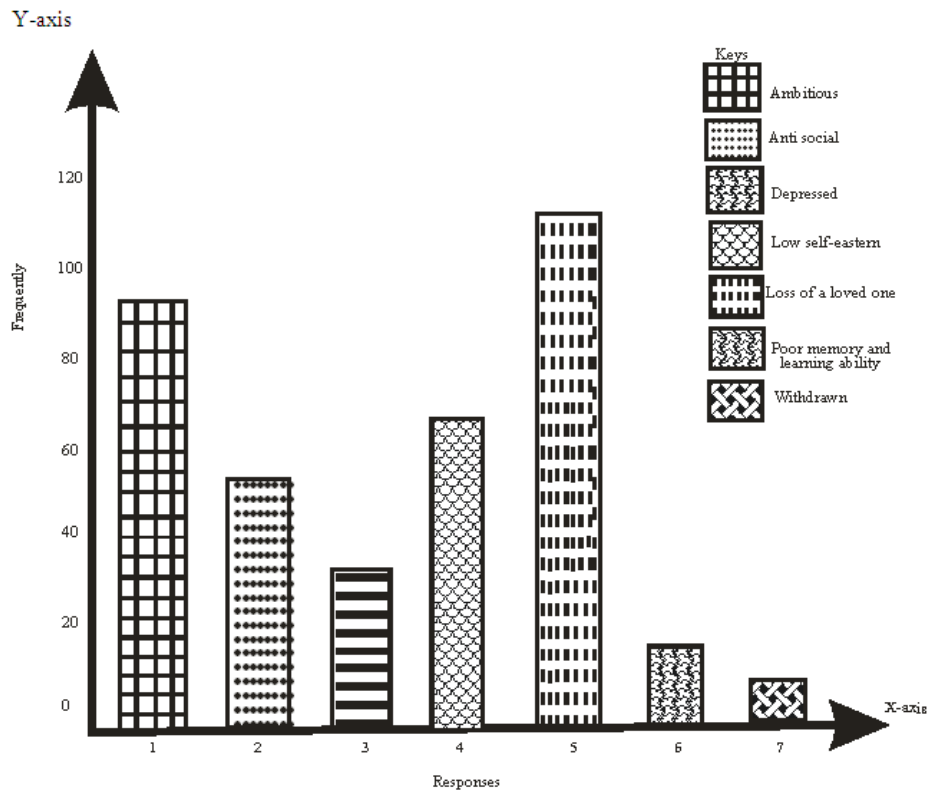


Fig. 3. Typical features possessed by respondents before substance use

Table 3. Factors influencing substance use

Factors	Frequency	Percentage
Mental illness	16	7.2%
Environment	58	26.0%
Family background	121	54.3%
Peer group pressure	162	72.6%
Personality	29	13.0%
Trauma	104	46.6%
Low-self esteem	84	37.7%
Thrill seeking tendencies/ For fund	81	36.2%

Fig. 3 shows that 92(41.3%) of respondents are ambitious 51(22.9%) anti social, 28(12.6%) depressed, 77(34.5%) low self-esteemed, 113(50.7%) lost a loved one, 15(6.7%) had poor memory and learning ability and 8(3.6%) were withdrawn.

Result on Table 3 shows that peer group pressure 162(72.6%) and family background 121(54.3%) were the major factors influencing substance use. Mental illness 16(7.2%), personality 29(13.0%) and environment 58(26.0%) were the least factors influencing substance use, other factors includes trauma

104(46.6%), low self-esteem 84(37.7%) and thrill seeking tendencies (for fund) 81(36.3%).

4. DISCUSSION

The result of the findings of the study indicate that 223 (96.5%) of respondents have information on substance use, 88(38.1%) agreed to substance use. Most of the 88 respondents, 74(84.1%) use alcohol but few 22(25.0%) use tobacco. Age at first use of substance was common among age bracket of 15-19 years (67.0%). This shows that alcohol and tobacco were the most common substances used by the

senior secondary school students in community secondary school, Umuna. This study agrees with the study by Anyanwu et al. [8], whose study found out that alcohol was the most commonly abused substance.

The findings of this study shows that smoking (80.7%) and sniffing (51.1%) were the most common patterns of substance use. More than half (51.1%) of the respondents use substance on a daily basis.

This finding is in line with what Maruf et al. (2016), found out in their study in Dhaka that smoking or inhalation were the route used by most respondents. It is also in relation with what Gupta et al. (2013), discovered in North India that 49% of the users were using substances on daily basis, and followed by 23% who were using it weekly.

From the findings, 46(52.3%) of the respondents said they used substance because they lost a loved one (depression), 38(43.2%) were ambitious and 33(37.5%) had low self-esteem. The study further revealed that peer group pressure 147(63.6%), family background 139(60.2%) were factors influencing substance use.

This is in line with what Maruf et al. (2016), found out in their study that animosity, peer pressure and fun were identified as the common reasons for initiating substance use.

It is also in line with the study by Johnson et al. [2] on the prevalence and factors affecting psychoactive substance use among undergraduate students in University of Uyo, Nigeria, that a statistical significant association exist between substance use and age, sex, intra-family relationship, family members substance use and peer group.

This study indicated that students within age bracket 14-17years were more involved in substance use. There is also significant difference between age and psychoactive substance use ($\chi^2=35.59$; $p<0.05$). This result is similar to a study carried out by Egbunu et al. [3], on the demographic patterns of psychoactive substance abuse among senior secondary school students in Niger state, which stated that there is a higher involvement of students of 17-19 years age bracket in substance abuse. Johnson et al. [2] also asserted that a statistical

association exists between substance use and age.

This study indicated that male students are more involved in substance use than females. There is also significant difference between gender and psychoactive substance use ($\chi^2=10.63$; $p<0.05$). This result also agreed with a study carried by Egbunu et al. [3], on the demographic patterns of psychoactive substance abuse among studies adolescents cut across gender through higher involvement in a male gender [9-11].

5. CONCLUSION

Majority of the respondents (96.5%) have hears of substance use. More than thirty eight percent (38.1%) use psychoactive substance. Substances commonly used by students were alcohol and tobacco. Common age at first use of psychoactive substance was 15-19 years. Smoking and sniffing were the two most common patterns of substance used by the secondary school students and more than half of students use substance on a daily basis. Characteristic features of students before substance use were loss of loved ones (depression), ambitious and low self-esteem. Most of the respondents were influenced by family background and peer pressure. There was a significant relationship between age and gender on the use of psychoactive substances among Community Secondary Students Umuna, Orlu.

CONSENT AND ETHICAL APPROVAL

A letter of introduction from the Department of Nursing Sciences Imo State University, Orlu Campus was obtained and taken to the principal of Community Secondary School. Permission to carrying out the study was obtained from the principal of the school. Before collecting the data, informed consent of respondents were obtained and the purpose of the study was explained to them. Participation in the study was voluntary and a respondent has the right to withdraw if he/she wishes to do so. Information provided was treated confidentially and respondent's anonymity was adequately maintained.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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