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Psychoactive Substance Consumption and Awareness of Health Effects among Students in Tertiary Institutions in Ekiti State, Nigeria

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Abstract
The study investigated psychoactive substance consumption and awareness of health effects among students in tertiary institutions in Ekiti State. A total of 480 students were randomly sampled from three tertiary institutions in Ekiti State. A structured questionnaire was used to collect relevant data for the study. Chi-square and t-test statistics were used to verify hypothesis one to three, respectively. Results showed a high consumption of alcohol, tobacco, caffeine and marijuana by participants. Also, there was a significant difference in the extent to which male and female participants consumed psychoactive substances. Factors such as weight control, acceptance by others, desire to experiment and peer group interaction were the rationale for psychoactive substance consumption among the participants. However, there was no significant difference between psychoactive substance users and non-users on the reasons for substance use. Aggressiveness, sleeplessness, tension and headache were the leading health effects experienced by psychoactive substance users. The findings of the study would provide useful information on the extent and types of psychoactive substances consumed by the students for planning health education programmes and for formulation of health policy for students in tertiary institutions in Nigeria.

Keywords: psychoactive substance, addiction, drug education, perception, health effects.

INTRODUCTION

Psychoactive substances have been in existence from time immemorial. Throughout history, people have swallowed, sniffed, smoked and injected into their bodies a variety of chemical substances for the purpose of altering their moods, level of consciousness or behaviour (Sue, Sue & Sue, 2006). Psychoactive substances can be described as natural or synthetic or chemicals which when taken would alter the way users feel, think or behave. Psychoactive substances act primarily upon the central nervous system, thereby altering the functions of the brain, resulting in temporary changes in mood, behaviour, attitude and perception. WHO (2004) defined psychoactive substances as chemical substances that, when taken, have the ability to change an individual's consciousness, mood or thinking processes.

The upsurge in the use of psychoactive substances seems to be a global problem. The prevalence also seems high in developing countries as events happening in Nigeria indicate that the use of psychoactive substances is on the increase. For instance, cases of violent demonstrations, thuggery, arson, incessant armed robbery, high level of prostitution, religious crisis, and cultism among the restless youths in Nigeria could be linked to the unabated use of psychoactive substances.

Similarly, the rate at which youths have access to psychoactive substances for social reasons rather than prescription for medical purpose is high. Some adolescents use drugs simply because they can get them. Knots (2000) reported that youths have used substances ranging from tobacco, alcohol, marijuana, valium and inhalants to other hard drugs which often they obtained from friends, patent medicine stores, open markets and mobile drug sellers with little or no difficulty. An epidemiological survey conducted on secondary school students by the Federal Ministry of Education (1995) found out that 11% of the students have smoked cigarette while 5% have used cannabis, amphetamines, cocaine and heroin. A recent observation by Yusuf (2010) clearly shows that substances ranging from alcohol, cigarettes, marijuana, cocaine, heroin, hashish and many others are readily available to the youths in Nigeria and this has made the youths to be perpetrators of social vices.

It is not out of place to observe that substances such as kola nuts, alcohol, raw tobacco and cigarette are used for social purposes and enjoy wide acceptability in social events such as in naming ceremony, rituals, burials and marriage engagements. These substances have some active ingredients in them that when taken in excess can alter the way the user feels, thinks and behaves and could also lead to addiction. The Nigerian society does not consider some of the psychoactive substances as abuse and long as they are

used in moderation and only by adults. However, there seems to be little or no restriction on the substances, hence the availability of the products within the reach of the youths.

The use of psychoactive substances is not limited to the youths on the streets alone but have found wide patronage among the students in tertiary institutions in Nigeria. Thus, the use of psychoactive substances is one of the leading social problem confronting students in higher institutions. Hales (2007) observed that drug use on campus is on the increase with almost half of the undergraduates attesting to the fact that they have used marijuana. Students in tertiary institutions may cultivate the habit of using psychoactive substance to enable them face the various challenges within school environment. For instance, Mesquita, Laranjeira and Dunn (1997) discovered that students believed that stress associated with competitiveness, long hours of work and pending examination was an important factor in psychoactive substance use. Other students may use psychoactive substances because of the measurable experience they derive from the usage. In addition, some students may possibly indulge in the habit of consuming psychoactive substances for the purpose of finding escape route from reality of day-to-day problems. Shrier, Harris, Kurland and Knight (2003) opined that individuals turn to psychoactive substances in seeking escape from pain, boredom, fatigue, anxiety, poverty and frustration including behavioural or emotional problems. The painful aspect is that the pleasure derived from the use of psychoactive substances is fleeting and very quickly the effects will wear-off, which will necessitate taking another dose to maintain the pleasure. Allowing this cycle to continue without suppressing the urge may overtime result into substance addition.

It is not unlikely that the various anti-social behaviours and crimes associated with students in tertiary institutions such as cultism and violent demonstrations are influenced by psychoactive substance consumption. Also, the recurrent incident of burglary; armed robbery, thefts and vandalism of all sorts, that are common in students residential areas could be linked to the use of psychoactive substances.

Suffice to state that some psychoactive substances may be used ignorantly without knowing that it contains intoxicating chemicals. One may assume that the increase in the use of psychoactive substances by students is due to lack of knowledge of the negative health effects. Majority of the youths that consume psychoactive substances tend to do so just for the fun of it and possibly to please their peers.

In Nigeria, studies on the use of psychoactive substances were limited to government owned secondary school students (Igwe, et al 2009) with very few on University undergraduates. Neither has any study been conducted in other tertiary institutions such as Colleges of Education nor Polytechnics in Ekiti State. The purpose of this study therefore, is to investigate psychoactive substance consumption and to determine the extent to which the students tertiary institutions are aware of the health effects of the drug consumed.

Three hypotheses were postulated for verification at $p<0.5$ level of significance, thus:

1) There is no significant difference in the extent to which male and female students in tertiary institutions in Ekiti State consume psychoactive substances.
2) Psychoactive substance users and non-users will not significantly differ in their reasons for using such substances.
3) There is no significant difference in the perception of users and non-users on the health effects of psychoactive substance consumption.

METHODS

Research Design

Descriptive survey design was adopted for the study. It is a design that sought information on the pattern of distribution of the items of the study and population without the manipulation of any variable.

Population

The population for this study consisted of all the students in tertiary institutions in Ekiti State, Nigeria. It included male and female students in College of Education, Ikere – Ekiti, Federal Polytechnics, Ado – Ekiti, and Ekiti State University, Ado – Ekiti.

Participants

The study was conducted in Ekiti State located in the South Western part of Nigeria. The participants consisted of 480 males and females randomly selected from Ekiti State University, Ado – Ekiti, Federal Polytechnics, Ado – Ekiti and College of Education, Ikere – Ekiti. The participants were stratified by their sex (either, male or female) and by their involvement in psychoactive substance (i.e. either, users or non-users). A total of 160 participants were randomly sampled from each of the tertiary institutions.

Instruments

The researchers used a self-developed questionnaire which consisted two sections. The first part dealt with the socio-demographic variables of the participants, while the second part contains items on types and extent of psychoactive substances, reasons for use and the perceived effects of psychoactive substances by the participants. Also, questions were designed to identify psychoactive substance users and

non-users. The content validity of the instrument was ascertained by five experts, two in each of health education and psychology, and one in test and measurement from two institutions of higher learning in Ekiti State. A test- retest reliability of value of 0.80 was obtained using 50 students (25 males and 25 females) in another tertiary institution. The participants used for the pilot study were outside the actual participants for the study.

The researchers with 3 trained assistants visited the institutions and administered the questionnaire to all the participants who voluntarily took part in the survey. The questionnaires were completed independently to decrease the possibilities of comparing notes and discussing the questionnaire items.

DATA ANALYSIS

The data gathered were analysed using frequency counts, percentages, chi-square and t-test statistics. An alpha level of .05 was set to test all the hypotheses formulated for the study.

RESULTS

Demographics

The questionnaire was administered to 500 students at their various institutions. Close supervision ensured a 100 percent return rate. However, only the 480 questionnaires which were adequately completed and hence free from inconsistences were used in the analyses. The final sample for this study consisted of 480 students (male = 240, female = 240) selected from the 3 institutions in Ekiti State. The participants are within age range 17 – 37 years.

Reported Psychoactive Substance Consumption

The drugs reported in this study were those which previous studies and informal interviews by the researchers had indicated were familiar to, or used by students. The participants were asked to indicate the psychoactive substances they have seen and the extent they actually used such drugs. The responses are in table 1.

Table 1: Percentage distribution of responses on psychoactive substance consumption

Type of substance	Substance seen	Substance used	Never use
Alcohol	350 (72.9)	230 (47.9)	250 (52.1)
Tobacco	400 (83.3)	210 (43.8)	270 (56.1)
Heroine	150 (31.3)	55 (11.5)	425 (88.5)
Morphine	141 (29.4)	41 (8.5)	439 (91.5)
Methadone	106 (22.1)	57 (11.9)	423 (88.1)
Amphetamine	138 (28.8)	35 (7.3)	445 92.7)
Ephedrine	270 (56.3)	78 (16.3)	402 (83.7)
Cocaine	207 (43.1)	53 (11.0)	427 (89.0)
Lysergic Dyethlylamide (LSD)	111 (23.1)	65 (13.5)	415 (86.5)
Marijuana	159 (33.1)	96. (20.0)	384 (80.0)
Opium	80 (16.7)	14 (2.9)	466 (97.1)
Caffeine	310 (64.6)	180 (37.5)	300 (62.5)

The present data shows that there is a wide gap between seen a particular psychoactive substance and actually trying or using it. While a large number of participants saw the substances, only a small number actually used or tried them. A cursory look at table 1 indicates that alcohol (47.9%), tobacco (43.8%); caffeine (37.5%) and marijuana (20.0%) were the most consumed psychoactive substances by the participants. Also, the table reveals that all the 12 psychoactive substances identified in this study had been tried by the participants. In order to test if the differences observed in the extent to which male and female participants consumed psychoactive substances with reference to hypothesis 1 for the study are statistically significant, the chi-square (X^2) statistics was used. The results (Table 2) showed a significant difference in the number of psychoactive substance users and non-users (X^2 = 47.19; df 1; P <0.05). The null hypothesis is therefore rejected. Thus, male participants who consumed psychoactive substances were significantly higher than female participants who consumed.

Table 2: Extent of psychoactive substance consumption by gender of participants

Variable	Sex		df	X^2
	Male	Female		
To a great extent	123 (25.6)	13 (2.7)	1	47.19
To some extent	90 (18.9)	76 (15.8)		*

$X^2 > 3.84$; df = 1; P = 0.05

Reasons for Psychoactive Substance Consumption

Table 3 shows the analysis of the comparison between the perception of psychoactive substance users and non-users on the reasons that may influence a student to try drugs with respect to hypothesis 2. There were differences in the mean scores of psychoactive substance users as compared with non-users on all the reasons for using psychoactive substances. The results indicated that the mean score for psychoactive substance users appeared to be higher in weight control ($\overline{X}$ = 2.92); acceptance by others ($\overline{X}$ = 2.70); desire to experiment ($\overline{X}$ = 2.53) and peer group interaction ($\overline{X}$ = 2.43) than non-users. However, both psychoactive substance users and non-users seemed to agree that factors such as nervousness, fear of failure, frustration, desire to excel, self-confidence and social recognition were reasons that may influence a student to use the identified substances.

The t-test analysis was used to test for the statistical significance difference between psychoactive substance users and non-users in each of the reasons. The t-calculated values for all the reasons were less than the t-table value of 1.96 at 0.05 level of significance. Therefore, there was no significant difference between users and non-users on the reasons for psychoactive substance consumption. Thus the views of psychoactive substance users and

non-users on the reasons for using the substances were not significantly different.

Table 3: t-test analysis on the reasons for psychoactive substance consumption by Participants

Reasons for substance use	Users (N = 369)		Non-Users (N = 111)		df	T_{cal}
	X	SD	X	SD		
Nervousness	2.49	.99	2.44	.94	47.8	.45
Desire to Experiment	2.53	.99	2.45	.93	47.8	.74
Fear of failure	2.40	.97	2.47	1.0	47.8	.60
Weight control	2.92	1.04	2.79	1.06	47.8	1.27
Frustration	2.45	1.02	2.46	.99	47.8	-1.0
Desire to excel	2.75	1.05	2.76	1.04	47.8	-.44
Self Confidence	2.53	1.06	2.50	1.03	47.8	.28
Social Recognition	2.37	.95	2.36	.92	47.8	.18
Peer group interaction	2.43	.97	2.29	.95	47.8	1.40
Advertisement	2.44	.95	2.40	.95	47.8	.35
Acceptance by others	2.70	1.00	2.54	.98	47.8	1.56

$P < 0.05$ level of significance

Health Effects of Psychoactive Substance Consumption by Participants

Table 4 reflects the commonest health effects of psychoactive substance consumption as experienced by drug users and as perceived by non-users with respect to hypothesis 3. The leading health effects experienced by psychoactive substance users include, aggressiveness ($\overline{X}$ = 2.20); sleeplessness ($\overline{X}$ = 1.98); tension ($\overline{X}$ = 1.72); hand tremour ($\overline{X}$ = 1.71) and headache ($\overline{X}$ = 1.69). On the other hand, participants who claimed not to have used psychoactive substances in this study perceived poor concentration ($\overline{X}$ = 1.67; dry month ($\overline{X}$ = 1.63) and increased sweating ($\overline{X}$ = 1.61) as the leading health effects that might be associated with psychoactive substance consumption.

Table 4: t-test analysis on the effects of psychoactive substance consumption by Participants

Reasons for substance use	Users (N = 369)		Non-Users (N = 111)		df	T_{cal}
	X	SD	X	SD		
Headache	1.69	.90	1.57	.79	47.8	1.30
Nervousness	1.55	.79	1.49	.77	47.8	.68
Aggressiveness	2.20	.91	2.03	.91	47.8	1.63
Hand tremous	1.71	.87	1.68	.83	47.8	.34
Sleeplessness	1.98	.94	1. 74	.84	47.8	2.35*
Restlessness	1.59	.82	1.56	.80	47.8	.42
Mental Problem	1.64	.86	1.61	.83	47.8	.31
Dry Mouth	1.60	.77	1.63	.81	47.8	-.29
Increase High Blood Pressure	1.61	.88	1.52	.79	47.8	1.07
Increase Sweating	1.53	.83	1.61	.86	47.8	-0.80
Tension	1.72	.82	1.58	.79	47.8	1.50

$P < 0.05$ level of significance

* Significant result

In order to test if the differences observed in all the factors on health affects are statistically significant with reference to psychoactive drug users and non-users (Hypothesis 3), t-test analysis was computed. The results of the analyses showed that there was a significant difference in the mean scores of psychoactive substance users and non-users with respect to sleeplessness alone. In this case, psychoactive substance users perceived sleeplessness as a vial health effects more than the perception of non-users. Except in this singular case, there was no significant difference in the perception of psychoactive substance users and non-users. Therefore, the hypothesis 3 was rejected only for sleelessness.

DISCUSSION

The review of literature and the data analysis support a number of previous findings. All the participants in this study were not ignorant of psychoactive substances. In addition, all the participants have seen and identified themselves with one form of substance or the other. It is interesting to note that a high number of the participants had seen ephedrine, cocaine, heroine, morphine and lysergic diethylamide (LSD). In this study, participants confirmed the use of psychoactive substances such as alcohol (47.9%), tobacco (43.8%); caffeine (37.5%) and marijuana (20.0%). This result is consistent with the observations of Emiola (1990) who found that alcohol, cigarettes and marijuana were the three common drugs among the university students. In the same vein, the finding supported those of Oyerinde (1990); Knotts (2000); Eldelman and Mandle (2002) and Yusuf (2010). These researchers discovered a high percentage of cigarette smokers and alcoholic drinkers among the students sampled in their studies. In fact, Omigbodun and Babalola (2004) considered alcohol and cigarette smoking as gateway drugs. The duo is described as gateway substances because they are the initial substances used before other ones such as cannabis and cocaine are tried out. Hales (2007) noted that college students are most likely to drink if they can easily obtain cheap alcohol, especially beer.

One possible reason that could be adduced for the high percentage of alcoholic consumers and cigarette smokers among the students may probably be the high level of general social acceptance of alcohol and tobacco in Nigeria, combined with the ignorance about their harmful effects on health (Robertson, David and Yao, 2003 & Olaitan, 2006). Another reason for the increase in the use of alcohol, tobacco and marijuana among the Nigerian students may be the fact that these drugs are readily available at shops, joints on campuses, street corners and supermarkets without any age restrictions (Abudu, 2008 & Yusuf, 2010).

Furthermore, few manufacturers of alcoholic beverages had volunteered in the past to sponsor important national competitions. For instance,

Nigerian Guinness brewery sponsored the Nigerian University Games (NUGA) held at Obafemi Awolowo University, Ile-Ife in 1984, while International Brewery, Ilesa sponsored Nigerian Colleges of Education Games (NICEGA) hosted by Oyo State College of Education, Ilesa in 1988. Although, the Government of Nigeria forbids the unauthorized use of amphetamines and other dangerous drugs, these drugs sometimes find their ways to open market. For instance marijuana is both illegal and socially condemned and is not publicly sold, but the users can purchase it privately.

Furthermore, this study revealed that male participants were highly involved in the use of psychoactive substances than their female counterparts (table 2). This was consistent with Okatachi (2003); Makanjuola, Daramola & Obembe (2007); Yusuf (2010) and Essien (2010) who equally discovered that majority of psychoactive substance users were males. Similarly, Igwe et al (2009) found out that males abused alcohol, kola nuts and coffee than females with cigarette and cannabis still the exclusive preserve for the males. However, the study conducted by Young, Boyd and Hubbell (2000) discovered a high prevalence of psychoactive substance use among women who engaged in prostitution than their male customers. It is not out of place to reason that addiction to psychoactive substances might be responsible for the risky sexual behaviour among the women population.

The result of this study also indicated that majority of psychoactive substance users were influenced by psychological factors such as weight control, desire to excel, acceptance by others desire to experiment and self-confidence. The psychological motives of drug used in this study focused on only eleven traits that might be peculiar with students in tertiary institutions. The results followed the same trend of slight difference between psychoactive substance users and non-users in almost all the factors that were identified in this study. However, participants who did not use psychoactive substances indicated that desire to excel, fear of failure and frustration were strong factors motivating students to try psychoactive substances. Other researchers (Adesanya, et al, 1997; Akers, 2006; Egbochukwu, et al 2009; Yakasai, 2010 & Torabi, et al, 2010) had previously found out similar findings.

Another key finding of this study was the perception of users and non-users on the health effects of psychoactive substance. The participants (users and non-users) in this study were able to identify health effects such as aggressiveness, sleeplessness, tension, hand tremour, headache, mental problem, poor concentration and high blood pressure as possible health effects of psychoactive substance consumption. This finding was similar to the reports of Kathleen, et al (2000); Hales (2007; UNODC (2007) and Horwood, et al (2010).

One may assume that the majority of the youths who consume psychoactive substances for the fun of it or possibly to please their peers do so because they lack the knowledge of the health effects of such psychoactive substances on the users. In support of this assertion, Olaitan (2006) revealed that most adolescents lack knowledge of the effects of psychoactive substances they engaged in. it is believed that if students are aware of the health effects of psychoactive substances use, the tendency to stop or not indulge in the act may be high. Yakasai (2010) concluded that there has been a lot of misinformation and distortion of facts about drug use and its effects.

CONCLUSION

The findings of this study provided useful information on the types of psychoactive substances mostly used and the reasons advanced by students in tertiary institutions in Ekiti State for using such substances. The findings have important implications for drug education intervention programmes on the various campuses in tertiary institutions in Nigeria. A comprehensive and effective drug education programmes in tertiary institutions is desirable for the students to inculcate adequate knowledge abut the health effects of the psychoactive substances. Majority of students in tertiary institutions have uncontrolled and increasing access to distorted information about psychoactive substance which they consume. The researchers suggested a further study on the relationship between psychoactive substances use and observed social vices such as cultism, student unrest, rape, examination malpractice and violent demonstration among students of tertiary institutions in Nigeria.

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