ORIGINAL ARTICLE

Psycho-active substance use among in-school adolescents in Zaria, North western Nigeria: What are the triggers?

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Abstract

Background: *Psycho-active substances have been used by various societies since the dawn of civilization, and still remain a major public health concern in the 21st century. Evidence has shown that in the last 2 decades in Nigeria, adolescents are a major group involved in the use of psychoactive substances. The study was carried out to determine pattern of use and the push factors for such use among in school adolescents in Zaria, Nigeria*

Method: *The study was cross sectional descriptive in design. A multi-stage sampling technique was used to interview 280 respondents using self administered, structured and pre tested questionnaires. Data was analyzed manually and chi-square test statistic was used to test for significance of association between categorical variables at p value of < 0.05.*

Results: *A total of 280 respondents, 195 (69.6%) males and 85 (30.4%) females senior secondary school adolescent were interviewed. The study shows that 157 (56%) use one or more substance or the other. The commonest ones are kola nut followed by cigarette and marijuana. The commonest push factor for use is to experiment (54%). The study also shows, statistically significant relationship between family background and psychoactive substance use (X2 = 21.57, df = 2 p<0.05), there was however no statistical significance between age, class of the students and substance use respectively (X2 = 1.94, df = 2 p>0.05) (X2 = 0.97, df = 2 p>0.05).*

Conclusion: *The prevalence of psychoactive substances use is unacceptably high and the main trigger identified was the process of experimentation in order to discover their effects. There is the need to institutionalize preventive strategies against substance abuse in our secondary schools. Further studies in this area are also recommended*

Key words: Psychoactive substance use, adolescents, triggers.

Introduction

Psychoactive substance use among youths and adolescents is a major public health problem worldwide. In Nigeria, the socio-medical phenomenon of drug use and abuse among adolescents remains among the most critical public health problems facing our society today and if unchecked could result to unprecedented outcomes [1, 2]. The problem of drug abuse in Nigeria received less priority attention prior to the 1980s, it was assumed hitherto that the problem was less serious compared to other countries [3]. However, studies have documented a rising trend of psychoactive substance use among adolescents in Nigeria [4, 5, 6]. The commonly used substances among adolescents include alcohol, kolanut, cigarette, solvents, cannabis, hypnosedatives and analgesics, [6,7,8,9]. Eneh and colleague [6] found that the substances commonly used were alcohol 65%, kolanut 63%, cigarette 61% and cannabis 26%.

Abiodun and colleagues [7] found that the most currently used substances were salicylate analgesics 52.2%, stimulants 21.6%, alcohol 12% and cigarette 4.4% while Fatoye and colleagues [8] studying in south western Nigeria found that the prevalence rate for salicylate analgesics was 48.7%, stimulants 20.9% alcohol 13.4%, hypnosedatives 8.9% and tobacco 3.0%. In the northern province of South Africa, it was found that the prevalence rate of illicit drugs use was 19.8%, cigarette smoking 10.6% and alcohol consumption was 39.1% [9]. Studies have documented varying factors that triggers adolescent to use psychoactive substances. The common triggers include, peer influence, parental influence, easy accessibility, coping with academic stress, attendance of social functions and personal attributes among others [4, 5,9,10].

In the light of the magnitude of the problem, the rising trend and paucity of data in the study area, the survey was undertaken to document the types and frequency of psychoactive substance use as well as the triggers.

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Methodology

The study was carried out in secondary schools of Zaria local government area of Kaduna state in February, 2006. The projected population of Zaria LGA stands at 412,261 with an annual growth rate of 2.9%.[11]The inhabitants are predominantly Hausas and Islam is the predominant religion. Majority of the inhabitants are farmers, traders, craftsmen. Others include civil servants, and students. There are 29 secondary schools in the LGA. Twenty (20) are public, while10 private. Of the 20 public owned secondary schools, 5 are boarding schools.

The study design employed for the survey was cross sectional descriptive. Senior secondary school students (S.S.S.S) in the LGA constituted the study population. A sample size of 280 in-school adolescents was determined using the appropriate statistical formula for sample size determination in health studies [12] and the prevalence of psychoactive substance use from a previous study[13]. A multi-stage sampling technique was used to select the 280 respondents. In the first stage, 5 schools were selected by simple random sampling.

In the second stage, the sample size of 280 was equally allocated to each school that is 56 respondents from each of the five schools. Two secondary school classes were also chosen from the list of classes in the school by balloting and the students present at the time of the survey were identified through the class register and selected by simple random sampling. A self administered, structured questionnaire with closed questions was used to collect data from the respondents. It was pretested in 2 schools in Sabon-gari LGA and finalized prior to the commencement of data collection. The questionnaire was administered concurrently in the selected classes of each school under the supervision of the research assistants and school teachers. Data was analysed with the aid of Epi info version 6.[14] Data was presented using frequency tables and chi-square test statistic was employed to test for significant association between qualitative variables at P value < 0.05. Approval to conduct the study was obtained from the zonal office if the ministry of education Kaduna State and informed consent was also sought and obtained from the students. Few of the students could not clearly comprehend the questions for which the research assistants offered the necessary clarification.

Results

A total of 280 respondents from 5 secondary schools were interviewed. All the respondents completed the questionnaires giving a response rate of 100%. There were 195 males (69.6%) and 85 females (30.4%). All the respondents were in the senior secondary school category. More than half of the respondents (55.71%) were in the age group 16 to 18years. This is shown in tables I(a) and I(b). The family background shows that 152 (54.29%) and 128 (45.71%) were from polygamous and monogamous families respectively as depicted in table I(c)

The study indicates that prevalence of psychoactive substance use was 56% that is, respondents who were using at least one substance at the time of the survey. There were 123 responses of those who do not use any of the substances. The commonest substance used was Kolanut (33.6%), followed by cigarette (15.7%), alcohol (7.9%) and cannabis (7.1%). The least used was amphetamine with 1.8% of the respondents using it. This is shown in table III. The study also shows that about 77% use at least one substance, 22% use up to two substances, while 2% use three or more substances.

In the study, the main trigger for substance use was the process of experimentation in order to feel the effect and belong to the group of users which accounted for 85(54.14%).This was followed by peer pressure 47 (29.94%) and other triggers accounted for 25 (15.92%) and include the use to keep awake, family problems to relieve stress, boost morale and feel high. It was observed that there was statistically significant relationship between type of family and psychoactive substance use(X^2 0 21.57, df = 2 P<0.05) as shown in Table V. There was however no statistical significance between the age, class of the student and substance use respectively (X^2 = 1.94, df =, P<0.05) (X^2 = 0.97, df =2, P>0.05). This is shown in tables VI and VII.

Table I: Socio- demographic characteristics

a. **Age distribution of the respondents**

Age group in years	Frequency	%
13 15	71	25.36
16 18	156	55.71
> 18	53	18.93
Total	**280**	**100**

b. **Sex distribution of the respondents**

Sex	Frequency	%
Male	195	69.64
Female	85	30.36
Total	**280**	**100**

c. **Family Background**

Family Type	Frequency	%
Monogamous	128	45.71
Polygamous	152	54.29
Total	**280**	**100.00**

Table II: Current use of Psychoactive Substance among Respondents by Sex

	Users		Non-Users			
Sex	Frequency	%	Frequency	%	Total	%
Male	117	41.8	78	27.9	195	69.7
Female	40	14.3	45	16.1	85	30.4
Total	157	56.1	123	44	280	100.0

(X^2 =4.025, df = 1 P< 0.05)

Table III: Frequency distribution of the commonly used substances

Types of substance	Frequency	%
Kolanut	94	33.6
Cigarette	44	15.7
Alcohol	22	7.9
Cannabis	20	7.1
Coffee/analgesic	14	5.0
Solvents	09	3.2
Diazepam	07	2.5
Amphetamine	05	1.8

N.B: There were multiple responses

Table IV: Triggering factors for psychoactive substance use among the respondents

Triggers	Frequency	%
Experimentation	85	54.14
Peer influence	47	29.94
Others	25	15.92
Total	157	100.00

Table V: Family types Vs Psychoactive Substance use

	User		Non-User			
Family Type	Frequency	%	Frequency	%	Total	%
Monogamous	57	20.4	71	25.4	128	45.8
Polygamous	100	35.7	52	18.6	152	54.3
Total	8157	56.1	123	44	280	100.1

(X^2 = 21.57, df = 2 P< 0.05)

Discussion

Adolescence is a time of dramatic biologic and psycho-social changes that prepare the individual for adulthood. The changing adolescent brain is more sensitive to the effect of greater amounts of psychoactive substance and this may lead to the consumption of greater amounts of these chemicals and greater resultant consequences.[9] Our study shows that the prevalence of psychoactive substance use was 56%. This high rate of use was reported by previous studies in different parts of Nigeria [4, 5, 6]. In other parts of the world, the situation is similar if not worse. For instance, a study among Congolese and French high school students showed[13] that alcohol use was put at 82.1% for males and 74% for females among the French students. It was 42% for males and 40% for females among the Congolese students.

In a preliminary report of self reported drug use among students in Zambia, the life time prevalence was up to 10% for cannabis[15]. A survey among high school students in Santiago Chile[16] showed that 70.1% of the students use alcohol,and 11.1% smoked more than six cigarettes a day. In a Brazilian study among school age adolescents[17], the largest consumption indexes for life time use were seen for alcohol (68.9%) and tobacco (22.7%). The types of psychoactive substance use were essentially kolanut, cigarette, alcohol, cannabis solvents and analgesic. This finding is consistent with other similar studies [4, 5,6,7,8,9,10]. Poly substance use was relatively common as about 23% of respondents reported use of two or more substances. Poly substance use was found to be consisted finding in other previous similar studies [4, 5,6,13,15,16,17]. The study population comprises of Muslim predominantly and the prohibition of alcohol consumption in Islam could explain the low level of use.

Overall, the prevalence rates of psychoactive substance use among youth in many countries are higher than for the general population. That situation is due to various factors common to almost all countries. The main reason remains the fact that adolescence is a period of experimentation and search for identity, and that young people are more likely than adults to experiment with various things, including drugs. Thus, prevalence rates among youth can be three or four times higher than those found among the general population.[18] In our study the main triggers identified were trying to experiment and peer pressure. Various triggers were identified by other similar studies and include, peer influence, parental influence, easy accessibility, coping with academic stress, attendance of social functions and personal attributes among others [4, 5,9,10.18,19]

In conclusion, concern still exists about the high prevalence of psycho active substance use among our youths. No single programme or approach can make the difference. Drug abuse is caused and triggered by a complex series of factors and to address this effectively among our youths, it is necessary to use a multi-pronged approach including a well organized school heath services, drug education, counseling ,moral instruction and legislation among others. A further study is also suggested in this area.

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