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PSYCHOSOCIAL CORRELATES OF SUBSTANCE USE AMONGST SECONDARY SCHOOL STUDENTS IN SOUTH WESTERN NIGERIA
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ABSTRACT

***Objective*: To determine the psychosocial correlates of substance use among secondary school students in rural and urban communities in south western Nigeria.**

***Design*: A cross-sectional survey of secondary school students using questionnaire eliciting substance use by students (WHO drug use questionnaire) and a well designed questionnaire on psychosocial variables.**

***Setting*: Six secondary schools selected from two local government areas in Ilesa, Osun State, South Western Nigeria.**

***Subjects*: The study population comprised 600 randomly selected senior secondary school students from six schools.**

***Results*: A total of 562 questionnaires were analysed. Current stimulant use was significantly associated with lower socio-economic status, coming from a polygamous family and self-rated poor academic performance. Current alcohol use was associated with being a male, polygamous family background, living alone or with friends, not being religious and self-rated poor academic performance. Current hypnosedatives use was commoner in students living alone or with friends and in those with self-rated poor academic performance. There was also significant positive relationship between current tobacco use and the male sex, not being religious and self-rated poor academic perfomance. Lifetime use of these substances had similar association with the psychosocial variables with slight differences.**

***Conclusion:* The similarity between the psychosocial correlates highlighted in this study and those reported in previous studies from other parts of Nigeria makes these observations useful enough for the planning of preventive strategies.**

INTRODUCTION

Drug use prevalence studies have identified common use of some substances among Nigerian secondary school student populations. These include alcohol, stimulants, hypnosedatives and tobacco (1-4).

In the last four decades, there has not been noticeable downward trend in the extent of use of these drugs amongst secondary school students in Nigeria(1,2,5,6). Few recent studies have highlighted specific psychosocial factors associated with students' drug use in an attempt to provide more information for control purposes. An in-depth understanding of the associations between these factors and drug use has been suggested for effective development of preventive strategies more so that lack of funds and shortage of adequately trained personnel are impeding implementation of control programmes(7). Some of these factors from the reports of previous studies include the male sex, rural location of school, low religiosity, poor mental health, study difficulty, brain fag syndrome and perceived harmfulness of drugs(8-11).

Majority of these factors have not been well studied in the area of the present study. Nigeria is a vast country with widespread cultural and religious variations which may modify students' drug use. This study was therefore carried out to determine some social, demographic and psychological factors which are associated with drug use amongst secondary school students in Ilesa, Osun State, South Western Nigeria.

MATERIALS AND METHODS

The study was conducted between 3rd September and 5th November,1997 in Osun State, South-Western Nigeria.

The procedure employed for the study has been described in another paper(12). In summary, 600 randomly selected senior secondary school students drawn from two local government areas completed the World Health Organisation Questionnaire for student drug use surveys(13) after a pilot study. The questionnaire had previously been widely used in

the country and had been reported to have acceptable reliability and validity(14). The second part of the questionnaire consisting of drug use items was used for the study. This part is arranged in such a way that current and lifetime use of substances can be elicited. Substances covered include tobacco, alcohol, cannabis, heroin, cocaine, stimulants, hallucinogens, organic solvents and hypnosedatives. The other two parts of the questionnaire consisted of sociodemographic variables and optional items.

Respondents were also requested to complete a section of the research instrument consisting of 11 items on age, sex, location of school (rural/urban), socio-economic status, family type, family size, place of domicile, religion, level of religiosity, difficulty with school fees payment and self-rated academic performance. Level of religiosity was assessed by requesting the respondents to rate themselves on attitude to and practice of their religion. It was therefore possible to rate them on three levels of religiosity (not religious, averagely religious and very religious).

The questionnaires of 562 respondents were analysed while the rest were rejected due to inconsistent responses.

The current use prevalence rates of the substances(12) were as follows stimulants; 20.9%, alcohol; 13.4%, hypnosedatives; 8.9%, tobacco; 3.0%, cocaine; 0.2%, cannabis, 0.2% while no current use was recorded for hallucinogens, heroin, morphine and organic solvents. The lifetime prevalence rates(12) were as follows: Stimulants; 37.5%, alcohol; 26.4%, hypnosedatives; 14.7%, tobacco; 8.4%, hallucinogens; 0.7%, cocaine 0.5%, cannabis; 0.5%. For heroin, pethidine and organic solvents, lifetime prevalence rate of zero was recorded. The prevalence rates of the four most commonly used substances (stimulants, alcohol, hypnosedatives and tobacco) were cross-tabulated against socio-demographic and academic performance. The computer programme Epi Info version 5 was used to process the data.

RESULTS

The results of the cross-tabulations of current and lifetime use of stimulants, alcohol, hypnosedatives and tobacco with some of the investigated socio-demographic variables are shown in table 1. Current stimulants use was significantly associated with belonging to lower socio-economic class (X^2=11.5, df = 2, P<0.005) and coming from a polygamous family (X^2=6.1, df = 1, P<0.05). Lifetime stimulants use was also positively associated with polygamous family background (X^2= 3.9, (df=1, P<0. 05) and living alone or with friends as opposed to living with parents or guardians (X^2 =14.1, df=2, P<0.001).

There were positive significant associations between current drinking and the male sex (X^2=14.4, df = 1, P<0.001), polygamous family set-up (X^2=21. 5, df=1, P<0.001), living alone or with friends (X^2=20. 3 df= 1, P<0.001) and not being religious (X^2=32. 0, df=2, P<0.001). Lifetime drinking was associated with the male sex (X^2=6.9, df = 1, P<0.01), polygamous family set up (X^2=18.5, df=l, P<0.001), coming from a large family (X^2=8.9, df=2, P<0.05) living alone or with friends (X^2 =12. 0, df=2, P<0.005) and not being religious (X^2=15.0, df=2, P<0.005).

Current use of hypnosedatives was associated with living alone or with friends (X^2=31. 0, df=2, P<0. 001) and difficulty with school fees payment (X^2=4.6, df=1, P<0.05). Lifetime hypnosedatives use was only significantly associated with living alone or with friends (X^2=46.5, df=1, p<0.001). Current tobacco use (cigarette smoking) was associated with the male sex (X^2=12.7, df=1, P<0.001) and not being religious (X^2=23.9, df=2, P<0.005). Similarly lifetime smoking had positive association with the male sex (X^2=18. 2, df=l, P<0.001), belonging to a rural school (X^2=9.3, df=1, P<0.005) and not being religious (X^2=6.5, df=2, P<0.05).

The findings of the relationships between self-rated academic perfomance and the four drugs studied are also shown in Table 1. Poor academic performance was significantly associated with current stimulants use (X^2=17.7, df=1, P<0.001), lifetime stimulants use (X^2=3.9, df=1, P<0.05), current drinking (X^2=45.0, df=1, P<0.001) and lifetime drinking. (X^2=24.8, df=1, P<0.001). Poor academic performance was also associated with current hypnosedatives use (X^2=23.9, df=l, P<0.001), lifetime hypnosedatives use (X^2=11.7, df=l, P<0.001), current smoking(X^2=12.0, df=l, P<0.001) and lifetime smoking (X^2=35.6, df=l, P<0.001).

DISCUSSION

The present study has identified a preponderance of male in both current and lifetime use of alcohol and tobacco when compared with their female counterparts. This finding is similar to many previous reports from other parts of the country(3,8,15,16). While the proportion of males to females engaged in current alcohol use was 2.9:1, the proportion was closer for lifetime use (1.7:1). This finding implies that after experimenting with drinking, males tend to go on and become more established drinkers than females.

The respondents did not differ significantly on the use of drugs whether the schools were located in rural or urban community except for use. Previous reports have not been consistent on the association of drug use and location of school. While more urban involvement in alcohol use has been reported(8), more rural involvement has also been reported(5). For hypnosedatives and tobacco, previous reports have also not been consistent(3,5,8). Abiodun and his colleagues reported more rural involvement in tobacco use in Ilorin, Northern Nigeria(6) but Adelekan(4) did not find any difference in a southern Nigerian city. In this study, respondents from rural community were more engaged in lifetime and not in current use of tobacco. It is important therefore, for attention to be focused on both rural and urban students in the planning of preventive programmes.

Respondents' socio-economic status (based on fathers' educational and occupational standard) was significantly associated with current stimulants use only. The preponderance of stimulants use among respondents belonging to lower socio-economic class

Table 1

Association of stimulants, alcohol, hypnosedatives and tobacco use and some socio-demographic variables and academic performance

Variable (and number of respondents)**	Stimulants		Alcohol		Hypnosedatives		Tobacco	
	Current Users n(%)	Lifetime Users n(%)	Current Users n(%)	Lifetime Users n(%)	Current Users n(%)	Lifetime Users n(%)	Current Users n(%)	Lifetime Users n(%)
Sex								
Male (n=265)	66(25)	111(42)	53(20)*	88(33)*	29(11)	45(17)	16(6)*	38(14)*
Female (n=295)	51(17)	99(34)	22(7)	60(20)	21(7)	37(13)	1(0)	9(3)
Location								
Urban (n=460)	97(21)	173(38)	65(14)	120(26)	40(9)	63(14)	12(3)	30(7)*
Rural (n=100)	20(20)	37(37)	10(10)	28(28)	10(10)	19(19)	5(5)	17(17)
Socio-economic status								
High (n=103)	12(12)*	32(31)	16(16)	35(34)	9(9)	16(16)	1(1)	10(10)
Medium (n=211)	37(18)	86(41)	28(13)	63(30)	22(10)	36(17)	4(2)	17(8)
Low (n=238)	68(29)	92(39)	31(5)	50(21)	19(8)	30(13)	12(5)	20(8)
Family type								
Monogamy (n=331)	56(17)*	110(33)*	24(7)*	60(18)*	31(9)	45(14)	10(3)	26(8)
Polygamy (n=218)	61(38)	100(46)	51(23)	88(40)	19(9)	37(17)	7(3)	21(10)
Family size(Father's children)								
Small(1-4 children) (n=206)	44(21)	71(34)	25(12)	67(33)*	20(10)	29(14)	6(3)	19(9)
Medium(5-7 children) (n=206)	40(19)	82(40)	33(16)	60(29)	15(7)	33(16)	6(3)	15(7)
large(>8 children) (n=142)	33(23)	57(40)	17(12)	21(15)	15(11)	20(14)	5(4)	13(9)
Place of domicile								
With parents (n=420)	78(19)	132(31)*	49(12)	96(23)*	27(6)*	44(10)*	11(3)	32(8)
With guardians (n=90)	24(27)	43(48)	10(11)	25(28)	6(7)	10(10)	3(3)	10(11)
Alone/with friends (n=48)	15(31)	35(73)	16(33)	27(56)	17(35)	28(58)	3(6)	5(10)
Religion								
Christianity (n=511)	106(21)	189(37)	69(14)	137((27)	45(9)	73(14)	14(3)	41(8)
Islam (n=46)	11(24)	24(46)	6(13)	11(24)	5(11)	9(20)	3(7)	6(13)
Religiosity								
Very religious (n=23)6	45(19)	89(38)	25(11)*	54(23)*	19(8)	33(14)	4(2)*	16(7)*
Averagely religious (n=270)	60(22)	101(37)	30(11)	69(26)	24(9)	37(14)	6(2)	22(8)
Not religious (n=51)	12(24)	20(39)	20(39)	25(49)	7(14)	12(24)	7(14)	9(18)
Difficulty paying school fees								
Present (n=225)	50(22)	100(44)	33(15)	69(31)	24(11)	39(17)	9(4)	19(8)
Not present (n=332)	67(20)	110(33)	42(13)	79(24)	26(8)	43(13)	8(2)	28(8)
Academic performance								
Average/Above average (n=462)	77(17)*	161(35)*	37(8)*	95(21)*	27(6)*	55(12)*	8(2)*	22(50)*
Poor/below average (n=95)	40(42)	49(520	38(40)	53(56)	23(24)	27(28)	9(9)	25(26)

Percentages to the nearest whole number
X^2 with Yates correction where indicated
*p< 0.05
** Total number of responses per variable is less than the total number of analyzed questionnaire (562) because of missing data

is difficult to explain in view of the fact that higher socio-economic class did not appear to be a protective factor for the other substances. Further longitudinal studies will be required to determine the consistency of this finding and shed more light on the relationship.

A possible protective factor from the findings of this study is monogamy. Respondents from polygamous families were more involved in stimulants and alcohol use. It has been reported in this environment that strained relationships and lack of family cohesion often set in within the context of polygamy(17). Strained relationship between parents has been identified as a factor enhancing drug use amongst secondary school students(18). This may partly explain the higher involvement of students from polygamous homes in the use of drugs. Another possible explanation is that supervision of children (especially from fathers) may not be enough in polygamous homes compared with monogamous homes. This argument is however not supported by the finding of this study on family size. Respondents from large families (where supervision is supposed to be less) did not differ significantly on most

drugs (except lifetime alcohol use) from respondents from small families. However, respondents who were living with their parents or with guardians were less likely to be involved in drug use than respondents who lived alone or with their friends. Respondents who lived alone or with their friends were more engaged in current and lifetime use of alcohol and hypnosedatives and lifetime use of stimulants. This may be related to supervision by parents and guardians of those living with them which is absent in those living alone. Parental supervision has been reported as a factor in students drug use(18).

Level of religious inclination and not the type of religion was found to be related to the use of some of the substances studied. The higher the level of religiosity, the less the likelihood of engaging in the use of alcohol and tobacco. The use of tobacco and alcohol is constantly preached against in this environment. A more religious person would tend to have access to such preaching than the less religious. Religious people would also tend to be more positively influenced by the subjects of such teachings. A similar finding has been reported from previous studies on these substances (alcohol and tobacco) in other parts of the country(9,19). Religiosity did not appear to be a protective factor in stimulants and hypnosedatives use. This may be a reflection of the general belief that these substances are not harmful. It has been reported from previous reports in the country that the less harmful a substance is perceived, the more the involvement of students in its use(9,18). While it may be beneficial to involve religious leaders in the campaign against the use of psychoactive substances by students for preventive purposes, they should be equipped with more information on the dangers of other drugs apart from tobacco and alcohol. It is hoped that focusing on other substances will reduce the rate at which they are used.

Difficulty with paying school fees was not associated with the rate of use of any of the substances investigated. In the area of study, emphasis on school fees had not been much in the past two decades as a result of the free education programme in schools. During periods when school fees had to be paid, the amount had been markedly reduced. The resultant liberal altitude of school authorities to school fees payment would not place defaulting students under much more pressure than the other students.

Academic difficulty was found to be positively associated with current and lifetime use of the four substances. Poor academic performance had been reported as a correlate of students' alcohol, hypnosedatives and tobacco use from previous reports in Nigeria(4,18,19). The obvious question which cannot be answered from this finding is the exact relationship (cause and effect) between poor academic performance and drug use. While poor academic performance may predispose to emotional reactions which in turn may lead to drug use, drug use on the other hand may cause psychological disturbance which may lead to poor performance. The latter assumption is supported by a study on the "brain fag" syndrome and stimulants use amongst Nigerian students(10). It was reported that students freely engaged in excessive consumption of stimulants to keep awake to study for longer hours when examinations were approaching. Many of them developed the 'brain fag' syndrome in which assimilation was impaired and study became difficult. More longitudinal studies are required to study the interaction of drug use and academic performance deeply so that the direction of cause and effect relationship can be determined. It is however important for educational counsellors to help develop effective study habits for students to reduce the pressure associated with examination periods.

In conclusion, this study has shown that many of the variables considered such as sex, type of family, lack of parental supervision, religiosity and poor academic performance were associated with many of the substances studied. While the cause and effect relationship may not have been fully established, the relative stability of most of these factors when previous reports and the findings of this study are considered suggests their usefulness in the planning of preventive strategies. Efforts should be made to study these factors further so as to shed more light on the exact nature of the relationships.

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