

Substance use and academic performance among University of Lagos students: Implications for social work practice

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Abstract

The study investigated substance use and academic performance among University of Lagos undergraduates and its implications for school social work practice. The study adopted a cross-sectional survey design. Participant for the study consisted of one hundred and fifty student using purposive and snowball sampling technique to select the participants. The results showed that there was a significant relationship between alcohol intake and academic performance of undergraduate students in the University of Lagos $\chi^2 = 22.208^a$; $df = 2$; $p\text{-value} = 0.000$. There was significant association between marijuana use and academic performance $\chi^2 = 75.240$; $df = 5$; $p\text{-value} = 0.000$. Also there was significant relationship between Tobacco smoking and academic performance $\chi^2 = 11.174$; $df = 5$; $p\text{-value} = 0.000$. It was concluded from this study that substance use have significant negative effect on academic performance of student. Based on these findings, it is recommended that the university authority must organize lectures for first year students who stand the risk of been tricked into drug use and more also the department of social work should create a counseling department for the purpose of helping students who are already addicts.

Key Words: Substance use, abuse, academic achievement and undergraduates

Introduction

Social work as a helping profession seeks to aid individuals in dealing with emotional and psychological issues, with the aim to enhance social functioning and overall well-being. One out of many of these problems is the menace of substance use and its resulting disorders; dependency and addiction. A problem mostly associated with adolescents. This is because adolescence years are a time of experimentation, exploration, curiosity and identity search (Olia, 2014). Social workers' role in dealing with this issue cannot be overstressed, because historically, they have been part of the primary service providers to individuals who experience substance use disorders due to their academic and practical knowledge regarding the issue (Wells, Kristman-Valente, Peavy, & Jackson, 2013). The term substance use refers to consumption of alcohol or psychoactive drugs not necessarily leading to addiction or dependence. Substance use disorders can be subsumed into three categories in terms of severity: mild, moderate and severe and it becomes a problem when the user is unable to have voluntary control over its usage. Owoyomi (2018) identifies an alarming rate of

substance use disorders among students with the global prevalence of psychoactive substance use increasing.

One of the commonly used drugs among students is marijuana and it has been found to have direct link with student's poor academic performance as it affect memory and cognitive development (Lynskey, Vink & Boomsma, 2006). Marijuana use is also linked with involvement in deviant peer group which can also affect academic performance (King, Meehan, Trim, Chassin, & Marker, 2006). There are debates in determining whether marijuana use causes poor academic performance or whether poor academic performance is the cause of marijuana use, or both outcomes are a reflection of common risk factors (Micheal, 2006). On one hand several studies provide evidence that proposes a direct link between poor academic performance and marijuana use as it affects the development of the brain. The studies Jager, Block, Luijten, & Ramsey (2010) and Crean, Crane, & Mason (2011) states that Marijuana use, particularly heavy use, has been shown to affect working memory, learning and information functioning; functions that are necessary for academic performance. Another drug that is usually abused by students is alcohol and it has also been associated with poor academic performance. It has a negative impact on schooling achievements by reducing the time spent in studying and inability to perform daily activities, missing classes, and study interruptions (Adlaf, Demers, & Gliksman, 2005). Alcohol is a colourless, volatile, flammable liquid which is the intoxicating constituent of wine, beer, spirits and other drinks (Idoko, Sholarin, Agoha, & Emerenwa, 2015).

The influence of alcohol consumption on academic performance can be direct or indirect (Singleton & Amy, 2009). Arria, Garnier-Dykstra, Cook, Caldeira, Vincent, Baron, and O'Grady (2013) have tried to identify whether there are direct and/or indirect causal links between consumption of alcohol and academic performance. Although there are still arguments about this links and the positive or negative effects alcohol might produce. The majority of opinions lean more on negative consequences as several scholars have attributed negative effects of alcohol consumption on heavy use which could explain its direct influence on academic performance (Butler, Adam, Spencer and Dodge, 2011; DeSimone and Wolver, 2005; Wechsler, Lee, Kuo, Lee, and Am, 2003). Unlike other abusive goods, such as alcohol and marijuana, the detrimental effects of smoking on learning abilities are less publicized. Clinical study, have clearly shown the negative impact of nicotine on the brain development and cognitive abilities of adolescent smokers, whose brains are particularly vulnerable to the neurotoxic effects (Trauth, McCook, Seidler, Slotkin, 2000). Adolescents who are daily smokers are found to have impairments in their working memory, and they perform poorer in various tests of cognitive abilities than their non-smoking counterparts, irrespective of the decency of smoking (Zhao, & Glewwe, 2010). Although the negative effect of cigarette smoking on academic performance has not been effectively established, however, nicotine has been found to affect brain development and cognitive abilities of adolescent smokers, whose brains are particularly susceptible to neurotoxic effects. Over the years, many students of University of Lagos have been found to be drug users. Infact, in 2016, during a screening exercise conducted by the institution, One hundred students (100) were caught with evidence of psychoactive drugs in their blood (Naijmobile, 2016). Eysenck (1997), theory of addictive personality is appropriate in explain drug addiction that

there are certain traits or characteristics in the individuals that abuse drugs. Such personality characteristics are inability to delay gratification, low tolerance for frustration, poor impulse control, and high emotional dependence on other people, poor coping ability and low self-esteem. Students with these personality characteristics are very likely to engage in drug use and drug dependence and find it difficult to abstain from drug abuse.

The institution has developed rehabilitation programme to help those who are already victims. There are various centre around the campus where drug of any type can easily be accessed by the students. Some of the common drugs that are available are marijuana, alcohol and cigarette. Drug use and abuse have been linked with organized crimes and disruption of normal academic programme, increased secret cult activities on campus and a source of threat to lives and properties which has direct impact on academic performance of students. Therefore, it is on this premise that this study investigates substance use and academic performance among students of University of Lagos.

The following hypotheses were tested in the study:

- There is a significant relationship between alcohol intake and academic performance of undergraduate's students in the University of Lagos
- There is a significant relationship between marijuana usage and academic performance among undergraduate students in the University of Lagos.
- There is a significant relationship between tobacco smoking and academic performance among undergraduate students in the university of Lagos

Methodology

A descriptive research design of cross sectional survey was adopted to identify significant effects of psychoactive substance use on the academic performance of students in the University of Lagos. This is because the study is not experimental but observational to make possible inference between substance use and academic performance among university of Lagos students.

The study location is the University of Lagos, Akoka, Yaba Local Government, Lagos state, Nigeria. The University of Lagos which is popularly known as "Unilag" is a Federal Government Research University in Lagos state, Southwestern Nigeria. The University of Lagos was established on 22nd of October, 1962 on the authority of the University of Lagos Act of 1962. As at 2013, the university had 1,123 members of academic staff, 1,065 non-academic staff members and 57,183 undergraduate students. The study population consists of undergraduate students from various faculties and departments who complete questionnaire on substance and academic performance.

The sample size for this study is one hundred and ninety (190) respondents. Purposive and snowballs sampling technique were used to select respondents in the study. These sampling technique were adopted because the researcher knew all the joints where students gather to smoke marijuana and visits were made to the venue to collect data from the respondents. Also snowball sampling was used to select female students who are marijuana smokers but do not go to joints to smoke.

A self-structured questionnaire to measure substance use among students was adopted. Questions included such as which of these drugs have you used and currently using at the moment? How often do you use these drugs? To measure academic performance students were asked to identify where their CGPA fall? The data obtained were coded and analyzed using statistical package for social sciences (SPSS). The bivariate analysis was done using chi-square.

Results

The results of the study are discussed in this section.

Table 1: Descriptive statistics of respondents

<i>Variables</i>	<i>Category</i>	<i>Frequency</i>	<i>Percent</i>
Age	16-20	47	24.7
	21-25	111	58.4
	26-30	1	.5
	31-35	28	14.7
	36 and above	3	1.6
Sex	Male	125	65.8
	Female	65	34.2
Department/faculty	Social/Sciences	33	17.4
	Environmental Science	28	14.7
	Business Administration	23	12.1
	Law	18	9.5
	Sciences	27	14.2
	Education	23	12.1
	Creative Art	28	14.7
	Engineering	5	2.6
Drugs used by participants	Arts	5	2.6
	Alcohol	53	27.9
	Marijuana	17	8.9
	Tobacco(cigarette)	5	2.6
	Alcohol and Marijuana	44	23.2
	Alcohol and tobacco	5	2.6
	Marijuana and tobacco	3	1.6
Respondents CGPA	All of the above	63	33.2
	1.50-2.50	36	18.9
	2.50-3.50	99	52.1
	3.50-4.50	41	21.6
	4.50-5.00	12	6.3
Frequency of alcohol intake	No response	2	1.1
	Daily	53	27.9
	Weekly	95	50.0
	Monthly	25	13.2
	No response	17	8.9
	Total	190	100.0

Source: Field Work

Table 1 shows that there are more respondents (58.4%) between the ages of 21-25 years. There are also more male (65.8%) respondents than females. More of the respondents (52.1%) had a GPA of 2.50 to 3.50 while more respondents (50%) drink alcohol weekly.

Relationship between alcohol intake and academic performance

Table 2: Cross-tabulation of alcohol intake and academic performance

		How often do you drink alcohol				χ^2	df	p-value
		Daily	Weekly	Monthly	Total			
Activities have missed because of hangover from the previous day drinking	Class	16 (25.4)	35(55.6)	12(19.0)	63(100)	49.53	10	0.00
	Test	9 (42.9)	10 (47.6)	2 (9.5)	21 (100.0)			
	Examination	0 (0.0)	1 (100.0)	0 (0.0)	1 (100.0)			
	Class and test	7 (41.2)	10 (58.8)	0 (0.0)	17 (100.0)			
	All of the above	14 (100.0)	0 (0.0)	0 (0.0)	14 (100.0)			
Have you ever drank before studying	None of the above	6 (10.7)	39 (69.6)	11 (19.6)	56 (100.0)	22.208	2	0.00
	Yes	37(40.2)	49(53.3)	6(6.5)	92(100.0)			
Do you feel like the alcohol you used influenced the result of the test or examination	No	9(12.2)	46(62.2)	19(25.7)	74(100.0)	32.204	4	0.000
	Yes	30(60.0)	13(26.0)	7(14.0)	50(100.0)			
	Can't say	10(17.9)	41(73.2)	5(8.9)	56(100.0)			
$\chi^2 = 22.208a$; df = 2; p-value = 0.000		Total	40(34.2)	64(54.7)	13(11.1)	117(100.0)		

Source: Field Work

The table above reveals the relationship between alcohol intake and academic performance of the undergraduates in the University of Lagos. The table shows a cross tabulation between the variables used to test the hypothesis while it also represents the chi-square test statistics. The analysis of the table shows that most of the respondents missed classes as a result of their previous day drinking. Also from the table, most of the student who had drank before studying did that on a weekly basis and most of the respondents who feel the alcohol they took influence their test or examination drank on a daily basis. From the table above, the p-value for the variables which shows the relationship between alcohol intake and academic performance among students is 0.000 which is less than the significant value of 0.05, therefore, we reject the null hypothesis and accept the alternative hypotheses. This implies that there is a relationship between alcohol intake and academic performance.

*Relationship between marijuana usage and academic performance***Table 3:** Cross-tabulation of marijuana usage and academic performance of undergraduate students in the University of Lagos

		How often do you smoke marijuana				χ^2	df	p-value
		Daily	Weekly	Monthly	Total			
Has smoking marijuana helped you assimilate	Yes	98(83.8)	9(7.7)	10(8.5)	117(100.0)	75.240	5	0.00
	No	2(15.4)	3(23.1)	8(61.5)	13(100.0)			
	Total	100(76.9)	12(9.2)	18(13.8)	130(100.0)			
Has smoking marijuana affected your attendance of any of this activities	Class	4(33.3)	2(16.7)	6(50.0)	12(100.0)	22.208	2	0.00
	Test	0(0.0)	1(33.3)	2(66.7)	3(100.0)			
	Class and test	0(0.0)	3(50.0)	3(50.0)	6(100.0)	32.204	4	0.000
	Test and examination	0(0.0)	0(0.0)	2(100.0)	2(100.0)			
	All of the above	14(82.4)	0(0.0)	3(17.6)	17(100.0)			
None of the above	82(92.1)	5(5.6)	2(2.2)	89(100.0)	31.954	4	0.000	
Have you ever smoked marijuana before an examination	before an examination	0(0.0)	0(0.0)	2(100.0)				2(100.0)
before a test or examination	before a test and an examination	44(81.5)	8(14.8)	2(3.7)				54(100.0)
	None	3(37.5)	3(37.5)	2(25.0)	8(100.0)	31.954	4	0.000
	Total	47(72.3)	12(18.5)	6(9.2)	65(100.0)			

$\chi^2 = 31.954$; df = 4;
p-value = 0.000

Source: Field Work

The above table shows the relationship between marijuana usage and academic performance of undergraduates in the University of Lagos. The table shows a cross tabulation between the variables used to test the hypothesis while it also represents the chi-square test statistics. The analysis of the table shows that most of the respondents indicated that they had taken marijuana before studying and they took it daily, also most have stated that marijuana has helped them assimilate their notes better. Also few indicated that marijuana intake has affected their class attendance and some have taken marijuana before a test and examination. From the table above, the p-value for the variables which shows the relationship between marijuana intake and academic performance among students is 0.000 which is less than the significant value of 0.05, therefore this shows a relationship between marijuana usage and academic performance. So therefore, we reject the null hypothesis and accept the alternative hypotheses.

*Relationship between tobacco smoking and academic performance***Table 4:** Cross-tabulation of the relationship between tobacco smoking and academic performance

		How often do you smoke cigarette?				χ^2	df	p-value
		Daily	Weekly	Monthly	Total			
Which of this activities have you missed because you were smoking a cigarette	Class	5(55.6)	0(0.0)	4(44.4)	9(100.0)	29.805	8	0.000
	Test	0(0.0)	1(100.0)	0(0.0)	1(100.0)			
	Examination	3(100.0)	0(0.0)	0(0.0)	3(100.0)			
	All of the above	14(100.0)	0(0.0)	0(0.0)	14(100.0)			
	None of the above	29(65.9)	13(29.5)	2(4.5)	44(100.0)			
	Total	51(71.8)	14(19.7)	6(8.5)	71(100.0)			
Have you ever smoke cigarettes before or while studying	Yes	32(74.4)	5(11.6)	6(14.0)	43(100.0)	11.174	5	0.000
	No	17(58.6)	12(41.4)	0(0.0)	29(100.0)			
	Total	49(68.1)	17(23.6)	6(8.3)	72(100.0)			
Have you ever smoked a cigarette before a test or examinations	Before a test	9(56.2)	5(31.2)	2(12.5)	16(100.0)	11.527	6	0.000
	Before an examination	2(100.0)	0(0.0)	0(0.0)	2(100.0)			
	before a test and an examination	34(82.9)	5(12.2)	2(4.9)	41(100.0)			
	None	3(33.3)	4(44.4)	2(22.2)	9(100.0)			
	Total	48(70.6)	14(20.6)	6(8.8)	68(100.0)			

$\chi^2 = 11.527$; df = 6; p-value = 0.000

Source: Field Work

The above table shows the relationship between tobacco smoking and academic performances of undergraduates in the University of Lagos. The table shows a cross tabulation between the variables of tobacco smoking and academic performance of the respondents.

The analysis of the table shows that most of the respondents indicated that they had not missed any of the highlighted class activities and they had smoked daily. Also most of the respondents agreed to smoking cigarettes before studying. Also most indicated that they had smoked cigarettes before a test and an examination. From the table above cross tabulation on the relationship between tobacco smoking and academic performance, the p-value for the variables which shows the relationship between tobacco intake and academic performance among students is 0.000 which is less than the significant value of 0.05, therefore this shows a relationship between tobacco smoking and academic performance. So therefore, we reject the null hypothesis and accept the alternative hypotheses and conclude that there is a relationship between tobacco usage and academic performance.

Discussion of findings

The first hypothesis stated that there is a significant relationship between alcohol intake and academic performance. The result shows that there is a significant relationship between alcohol intake and academic performance for students who use alcohol on a daily bases, as they have missed classes, test and examination due to hangover which has affected their academic performance to certain extent. The result is in line with the study of Jairus et.al. (2017), found that heavy drinking by students can lead to positive blood alcohol levels the next day, affecting whether or not they were able to get up for class the next day and, if they do, the quality of how information is processed and ultimately stored is affected. The work of Martinez, Sher, and Wood (2008) also corroborated this finding that problems frequently experienced by university students who engaged in heavy alcohol intake on a daily bases include, missed classes and poor academic achievement. Singleton and Amy (2007) uphold this finding when he found that there is an association between heavy drinking and decreased academic achievement in both the short and long-term and also reported that academic achievement decreased even more when students participated in partying activities. Werner, Walker and Green (1995) also discovered that heavy episodic drinkers are much more likely than non-heavy drinkers to report that drinking caused them to miss class, fall behind in their schoolwork, and perform poorly on tests or other academic projects. Similarly, Presley and Pimentel (2006); Wechsler, Lee, Kuo, and Lee (2000); and Wood, Sher, Erickson and Debord (1997) found an apparently strong association between a composite variable of alcohol involvement of university students and a composite variable of the academic challenges that they faced.

The second hypothesis stated that there is a significant relationship between marijuana smoking and academic performance. The result discovered that regardless of daily intake of marijuana by most of the respondents, most of them never miss classes, test, nor examination because they had smoked marijuana, also most of them agreed to smoking before studying and stated that it helped them assimilate better. When used before a test or examination most of the students confirmed the result as very good. Therefore this implies that marijuana seems to offer positive consequences on the academic performance of the respondents. This result is supported by the study of Harrington (2011) who posited that cannabis produces psychotomimetic symptoms, which might in turn lead to connecting concepts an aspect of divergent thinking considered primary to creative thinking. The study by Morgan, Rothwell, Atkinson, Mason and Curran (2010) also support this finding that one of the marijuana's primary properties is its ability to increase hyper-priming, or an ability to make connections between seemingly unrelated concepts. Also Harmish, Crawford and Hecht (1976), support this finding when they established that there are evidences that marijuana propel creativity and it leads to shift in cognitive functioning from verbal to non-verbal and that people under its influence performed better on holistic non-verbal task.

The third hypothesis also indicates a relationship between tobacco smoking and academic performance. The results showed a significant but rather weak relationship between tobacco smoking and academic performance, as most of the respondents claimed to never missing a class, test nor examination due to smoking cigarettes. Also most of the students stated to have engaged in smoking before studying, though most do not agree to the fact that it helps them assimilate, also most of the respondents

acclaim to smoking cigarettes before a test and an examination and state the results as very good, but do not believe it was the cigarette that influenced their performance in any way. Therefore, it is quite tedious to make a definitive statement as to how the smoking of cigarettes has influenced the academic performance of the respondents, perhaps it could be attributed to the combined use of all the listed psychoactive substances. Although this study has been able to identify a relationship between listed substances and academic performance, it is difficult to state if they have had a direct influence on the overall CGPA standings of the respondents as most of the respondents were seen to be within the average category of 2.50-3.50. This difficulty reflects the complex association between substance use and academic performance.

Eysenck's (1997) theory of addictive personality agrees with this complex association as it notes that there are certain traits or characteristics in the individuals that abuse drugs. This study have been able to show to some extent that many of these students are not too bad academically and their involvement in drug use could have been as a result of poor impulse control, and high emotional dependence on other people, poor coping ability and low self-esteem. As established in the work of Lynskey, Vink, and Boomsma (2006) the potential impact of substance use on educational attainment appears to have been relatively under-researched, due to the complexity of the association between substance use and educational attainment. Previous studies of King, Meehan, Ryan and Chassin (2007), have attributed the effects of substance use on academic performance to motivational, social and behavioral in components in addition to any effects on cognition and cognitive development.

It is important that school social workers find means of identifying students with drug problem and link them with rehabilitation centres. Parents and guardians should be educated on the high risk factors and ways to identify and deal with substance use and addiction in their wards. The university authority must also ensure that all students of the university regardless of department or faculty partake in a course designed to educate them about the ills of substance use regardless of its stimulating offerings. More importantly, counselling service anchored by social work department on a specific day at specific times to give students an avenue to discuss emotional, psychological, social and academic issues as it affect their studentship should be put in place.

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