
Assessment of Risky Lifestyle Behaviour Among Undergraduate Students of a Tertiary Institution in Delta State, South-South, Nigeria

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To cite this article:

Adje Ufuoma David, Igbinedion Precious, Achi Chukwubuikem James. Assessment of Risky Lifestyle Behaviour Among Undergraduate Students of a Tertiary Institution in Delta State, South-South, Nigeria. *Central African Journal of Public Health*.

Vol. 6, No. 4, 2020, pp. 232-236. doi: 10.11648/j.cajph.20200604.18

Received: July 11, 2020; **Accepted:** July 27, 2020; **Published:** August 18, 2020

Abstract: Young persons are vulnerable to risky health behaviors which can predispose them to serious morbidities later in life. The objectives of this study were to identify risky lifestyle habits among college students and explore the relationship between unhealthy habits and self-reported academic performance. An adapted behavioral risk factor surveillance system (BRFSS) questionnaire was administered to 400 college students by systematic random sampling. Anonymously filled questionnaires were deposited at agreed safe locations after completion and retrieved thereafter. Data was analyzed using SPSS for windows version 21. Chi Square Test which was used to explore possible association between demographic variables and responses. Level of significance was set at 0.05. The median age of respondents was 22 years (range 17-30). Prevalence of prescription drug (codeine) abuse was 17.3% while use of tobacco, alcohol and hard drugs were 14%, 56.2% and 9.3% respectively. More than half of the students were sexually active with more males 79 (35%) reporting multiple sexual partners. More than half, 163 (68.5%) of those who had ever engaged in sexual intercourse claimed that they always or sometimes use some form of protection. More than three quarters ate breakfast regularly. More males 207 (91.6%) than females 339 (84.8%) claimed to eat fruits and vegetables regularly. Majority, 339 (84.8%) admitted eating nodules more than five times a week. The association between alcohol usage and self-reported academic performance was statistically significant but appears not to be negative. However, TV viewing for more than 2 hours a day was significantly associated with poor academic performance, Chi Square 22.940, df, 12, P=0.028. Conclusively, risky lifestyle habits among undergraduate students included smoking, alcohol usage, use of hard drugs and unprotected sexual intercourse. Poor habits that reduce sleep quality could negatively affect students' academic performance.

Keywords: Adolescent, Health Risk Behaviors, College Students, Nigeria

1. Introduction

Globally young people constitute a significant proportion of the population. Nearly 1 in 5 persons living in the Middle East and Africa are between the ages of 15 to 24 years [1-2]. In Nigeria, youths aged 10-24 years' account for 32% of the total population [3]. Generally, young persons are vulnerable to potentially harmful activities because of a high propensity to be involved in risky health behaviors [4]. Such behaviors include use of tobacco and other illicit psychoactive substances, excessive use of alcohol, poor dietary pattern,

physical inactivity, lack of sufficient sleep, and unprotected sexual activity [5-7]. The World health organization states that 60% of a person's quality of health depends on behavior and lifestyle [8]. Therefore, unhealthy lifestyles could predispose youths to chronic diseases in adulthood [9]. A significant proportion of youths 15-19 years are enrolled in colleges or tertiary institutions. Therefore, this is an ideal setting to carry out interventions to prevent and manage risky behaviors in adolescents. Identifying risky lifestyle and determining prevalence of risk factors in adolescents is critical to developing risk reduction strategies [10]. The

objectives of this study were to identify risky lifestyle habits among college students, determine the proportion of students that smoke cigarettes, take alcohol, engage in substance abuse and unprotected intercourse, determine proportion of students that are physically inactive, have poor dietary and sleep habits and to explore the relationship between unhealthy habits and self-reported academic performance.

2. Methods

2.1. Setting

The study was conducted in Delta State University, Abraka, Delta state, Nigeria. Delta State is multi-tribal and ethnically diverse state with numerous language groups, comprising of Urhobo, Isoko, Igbo, Ijaws and Itsekiri. Abraka is a town in Ethiope East local government area of Delta State. The town has a general hospital and a busy health center. A number of private health facilities and the University health center provide health care services for the populace. Residents are mainly civil servants and subsistent farmers and fishermen. Delta State University, Abraka (DELSU) is situated in the hearts of Abraka which makes the students the predominant population for most parts of the year.

2.2. Study Design

This was a cross sectional qualitative study design that assessed risky lifestyle behaviour among 450 undergraduate students.

2.3. Study Population

The population consisted of undergraduates of Delta State University, Abraka.

2.4. Sample Size/Sampling Technique

The total number of students enrolled in the University was 30000.

Applying Yamane formula [11-12].

$$N = \frac{N_1}{1 + N_1(e)^2}$$

Where

N=the population size

e=the level of precision (0.05)

$N = \frac{30000}{1 + 30000(0.05)^2} = 400$

This was increased to 450 in order to allow for attrition and incomplete data.

Pre tested self-completion questionnaires were distributed to students who showed a willingness to participate by signing a written informed consent form which contained a clear explanation of the purpose of the study and what was involved. The questionnaire was administered by systematic random sampling to 5 undergraduate students in every 7th room in the halls of residence until the sample size was obtained. Respondents were assured of utmost confidentiality due to sensitive nature of the questions. Anonymously filled questionnaires were deposited at agreed safe locations after

completion and retrieved thereafter.

2.5. Research Instrument

The behavioral risk factor surveillance system questionnaire, BRFSS) was adapted for the study [13]. This validated questionnaire is a telephone survey administered to adults above 18 years in order to determine health trends and measure progress of prevention initiatives. Minor adjustments were made to the questionnaire to suit the study population. The resulting questionnaire was a 50 item questionnaire consisting of two sections. The first section dealt with socio demographic data of respondents while the second section assessed risky lifestyle behaviors including current sexual habit, use of alcohol and psychotropic substances, vegetable and fruit consumption, hours of sleep daily and self-reported academic performance.

2.6. Data Analysis

Data was analyzed using SPSS for windows version 21 [14]. Questionnaires were coded and checked for errors. Categorical data were expressed as frequencies and proportion while means and standard deviation were computed for continuous variables. Chi Square test which was used to explore possible association between demographic variables and responses. Level of significance was set at 0.05.

2.7. Ethical Approval

Ethical approval was obtained from the Health Research Ethics committee, Delta State University teaching hospital, Oghara, Delta state.

3. Results

Four hundred usable questionnaires were retrieved out of the 450 administered giving a response rate of 89%. There were more males 226 (56.5%) than females 174 (46.5%). The age range of respondents was from 17 to 30 years with a median age of 22 years. Only 56 (14%) were smokers but more than half 225 (56.2%) consumed alcohol. Prevalence of prescription drug (Codeine) abuse was 17.3%, table 1.

Table 1. Socio demographic characteristics and prevalence of risky behavior.

Variable	No (%)		
	Male	Female	Total
Gender	226 (56.5)	174 (43.5)	400 (100)
Age			
17-20	57 (25.2)	74 (42.5)	131 (32.75)
21-24	110 (48.7)	94 (54.0)	204 (51.0)
25 and above	56 (26.1)	6 (3.4)	65 (16.3)
Behaviour			
Smoking	48 (21.2)	3 (1.7)	51 (12.8)
Alcohol consumption	142 (62.8)	85 (48.9)	225 (56.3)
Indian Hemp	29 (12.8)	8 (4.6)	37 (9.3)
Glue Sniffing	53 (23.5)	10 (5.7)	63 (15.8)
Codeine	56 (24.8)	10 (5.7)	63 (15.8)

The most predominant reason for smoking among males

was to calm down (5.3%) while for females, it was curiosity (4%). Most females took alcohol to calm down (17.8%) while males consumed alcohol for fun (17.3%), table 2.

Table 2. Reasons for smoking and alcohol; consumption.

Variable	No (%)			
	Smoking		Alcohol consumption	
	Male N=226	Female N=174	Male N=226	Female N=174
Habit	14 (6.2)	7 (4.0)	24 (10.6)	11 (6.3)
Curiosity	19 (8.4)	16 (9.2)	24 (10.6)	39 (22.4)
Calm down	21 (9.3)	21 (12.1)	64 (28.3)	67 (38.5)
Please friends	12 (5.3)	5 (2.9)	35 (15.5)	27 (15.5)
For Fun	18 (8.0)	0 (0.0)	66 (29.2)	33 (19.0)
Get High	2 (0.9)	0 (0.0)	4 (1.8)	0 (0.0)
Illness	0 (0.0)	0 (0.0)	2 (0.9)	2 (1.1)
Think well	0 (0.0)	0 (0.0)	2 (0.9)	0 (0.0)
Satisfaction	14 (6.2)	0 (0.0)	10 (4.4)	0 (0.0)

3.1. Sexual Behavior

More males 79 (35%) reported having multiple sexual partners than females 38 (21.8%). The proportion of sexually active males was 93 (41.2%) compared to females 59 (33.9%). More than half, 163 (68.5%) of those who had ever engaged in sexual intercourse claimed that they always or

sometimes use some form of protection, Table 3.

Table 3. Sexual behavior of undergraduate students.

Variable	N (%)		
	Male N=226	Female N=174	Total N=400
Sexual behaviour			
Ever engaged in sex	147 (65)	87 (50)	238 (59.5)
Sexually active	93 (41.2)	59 (33.9)	157 (39.3)
Multiple partners	79 (35)	38 (21.8)	117 (29.3)
Use Protection			
Always/Sometime	102 (45.1)	61 (35.1)	163 (40.8)
Rarely/Never	46 (20.4)	46 (26.4)	92 (23%)

3.2. Physical Activity and Eating Habit

More than half 242 (60.5%) students claimed to be physically active while 65 (17%) perceived themselves to be overweight or obese. More than three quarters ate breakfast regularly. More males 207 (91.6%) than females 339 (84.8%) claimed to eat fruits and vegetables regularly. Majority, 339 (84.8%) admitted eating nodules more than five times a week while 325 (81.5%) ate junk foods most days of the week. More than three quarters 62 (27.4%) males and nearly half of females 74 (42.5%) deemed their academic performance to be good, Table 4.

Table 4. Dietary, sleep habits and Self-reported academic performance of respondents.

Variable	N (%)		
	Male	Female	Total
Dietary pattern			
Regular breakfast	175 (77.4)	135 (77.6)	310 (77.5)
Fatty foods > 5 times a week	198 (87.6)	127 (73.0)	325 (81.3)
Soft drinks > 5 times a week	207 (91.6)	145 (83.3)	352 (88.0)
Fruits and vegetables > 5 times a week	207 (91.6)	142 (81.6)	349 (87.3)
Nodules > 5 times a week	202 (89.3)	137 (78.7)	339 (84.8)
Sleeping habits			
Good	109 (48.2)	120 (69.0)	229 (57.3)
Average	86 (38.1)	48 (27.6)	134 (33.5)
Poor	31 (13.7)	6 (3.4)	37 (9.3)
Sleep hours			
Sufficient	138 (61.1)	140 (80.5)	278 (69.5)
Insufficient	88 (38.9)	34 (19.5)	122 (30.5)
TV Viewing			
2 hrs. daily or more daily	39 (17.3)	25 (14.4)	64 (16.0)
Less than 2 hrs. daily	116 (51.3)	96 (55.2)	212 (53.0)
Self-reported academic performance			
Excellent	62 (27.4)	74 (42.5)	136 (34)
Good	129 (57.1)	84 (48.3)	213 (53.3)
Fair	33 (14.6)	15 (8.6)	48 (12.0)
Poor	2 (0.9)	11 (0.6)	3 (0.8)

There were statistically significant associations between self-reported academic performance and lifestyle habits, Table 5.

Table 5. Association between alcohol usage, TV viewing and self-reported academic performance.

Variables		Academic performance N (%)				X ²	df	P value
		Excellent	Good	Fair	Poor			
Alcohol Usage	Yes	64 (28.4)	124 (55.1)	35 (15.5)	2 (0.89)	10.553	3	0.014
	No	72 (41.1)	89 (50.9)	13 (7.4)	1 (0.6)			
TV Viewing	Less than 2 hrs.	123 (36.60)	167 (49.7)	0 (0)	3 (0.9)	22.940	12	0.028
	2hrs or more	13 (20)	46 (71.9)	43 (67.2)	5 (7.8)			

4. Discussion

The study assessed prevalence of risky lifestyle behaviors among undergraduate students. Prevalence of tobacco use was 14%. This is relatively low compared to prevalence rate obtained among undergraduate students in Ilorin, Nigeria (57%) [15], Port Harcourt, Nigeria, (36.1%) [16], Italy (24%) [17], and Lebanon, 20% [18]. Prevalence of alcohol use in this study was similar to results obtained from a South African study which reported 57% and 5% for males and females respectively [19]. This was even higher than rates obtained from Lebanon, 31% males and 8.6% females [18]. About 10% of respondents admitted using Indian hemp. This finding is consistent with a Nigerian study which showed a significant increase in the use of cannabis and other stimulants among youths in the Nigerian society [20]. Studies from other parts of the world show high rates of drug use among undergraduate students. For instance, 40% of students in Italy admitted smoking joint at least once a week. [17]. More than half of the students were sexually active. Similar rates were obtained in a study conducted in South Africa [21].

Less than half of the students in this study use some form of protection compared to 89.3% of sexually active students in South Africa who use protection regularly [21]. Use of condom among youths have been consistently low in many developing countries [2, 22-23]. The South African exception may be due to the relatively high prevalence of HIV in the South African population.[24] our findings may indicate a need for educational programs aimed at increasing the use of condoms and other protective measures among youths in the Nigerian society.

The association between alcohol usage and self-reported academic performance was statistically significant but appears not to be negative. However, TV viewing for more than 2 hours a day was significantly associated with poor academic performance. Tobacco use, poor dietary habits, physical inactivity, substance use, sleep problems, and depression symptoms have been associated with poor self-reported academic performance [25-26]. Focusing on some of these factors could be helpful in tackling underperformance among university students.

A major limitation of the study was that the key outcome measures were self-reported. Also direct assessment of weight, academic performance and other variables would have increased the reliability and generalization of the study findings.

5. Conclusion

Risky lifestyle habits among undergraduate students included smoking, alcohol usage, use of hard drugs and unprotected sexual intercourse. Poor habits that reduce sleep quality can negatively affect students' academic performance. The findings in this study could be deployed by policy makers and governments in designing lifestyle

and behavioral risk reduction strategies to ensure optimal adolescent health in Africa and other developing countries of the world.

Acknowledgements

Our sincere thanks to the University management and hostel potters for their support and cooperation during this study.

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