

## Alcohol Abuse as a Cause of Poor Academic Performance among Social Science Students of the University of Calabar, Nigeria

<sup>1</sup>Ukwayi, Joseph K.

<sup>2</sup>Lucy Ambekeh U.

<sup>1</sup>Chibuzo, C. Uwanede

<sup>1</sup>Undelikwo, Veronica. A.

<sup>1</sup>Department of Sociology University of Calabar,  
Cross River State Nigeria. Email: jukwayi@yahoo.co.uk  
<sup>2</sup>Department of Educational Administration and planning,  
University of Calabar, Nigeria. Email: luluudida@yahoo.com

Doi:10.5901/mjss.2013.v4n1p413

### Abstract

*Alcohol abuse cut-short the academic vision of colleges and universities and may undermine their aspiration of molding future citizens. In Nigeria, alcohol consumption has found its way among undergraduate students, who are normally seen in bars and restaurants including other secluded areas some metres away from the school consuming alcohol. The study examined the effects of alcohol abuse on the academic performance of Social Science Students of the University of Calabar, Nigeria. Data was obtained through the administration of 120 copies of questionnaires to students of the faculty of Social Sciences of University of Calabar, Nigeria. The Participants were approached at their lecture rooms and popular hang-outs within the faculty. Their ages ranged from 15 to 35 years and above. The result revealed that majority of the participants were within the age group of 15 – 35 years, which indeed is the age of risky behaviour characterized by substances use and abuse. For fun, stay wake (not to sleep during lectures and to read at night) and for courage (to be able to approach lecturers and make a public address) were identified as the primary reasons for the consumption of alcoholic beverages. The study further indicated that alcohol abuse had significant influence on students' academic performance ( $F = 70.115, p < 0.01$ ), and that a unit increase in alcohol abuse would result in 61% of social science students performing poorly in their examinations. The study recommends daily counseling as a way to reduce this phenomenon and improve students' performance in tertiary institutions, as well as advising students to take alcohol lightly while in school.*

### 1. Introduction

Poor academic performance among students of tertiary institutions may be associated with heavy alcohol consumption. In Nigeria educational environment, this phenomenon has found its way among undergraduate students, who are normally seen in bars and restaurants including other secluded areas some metres away from the school consuming alcohol. Some of these students spend the whole day in such places and only to retire home after school hours. Alcohol abuse which in the context of this study, entails the daily consumption of 5 bottles of alcoholic beverages and above has a lot of social and health implications on the Nigerian student, who happens to be the leaders of tomorrow. Alcohol abuse contributes to students missing class, failing tests, dropping out due to do poor grades, and compromising the academic mission of colleges and universities (Wechsler, 1995). Alcohol abuse cut-short the academic vision of colleges and universities and may undermine their aspiration of molding future citizens. Heavy drinking (binge drinking) can lead to a decline in the overall academic performance of an institution of higher education. These secluded and other public places of relaxation attract and afford students the opportunity to engage in high-risk behaviours and may have significant impact on their academic pursuits. Wechsler (1995) noted that "about a quarter of college students report experiencing difficulty with academics due to alcohol use, including earning low grades, doing poorly on tests and papers, missing class, and falling behind. Even students who do not abuse alcohol may suffer academically as a result of their peers' drinking". The period of taking care of a friend who is drunk may have secondary effects of the caretaker. This can have dramatic end results on the caretaker.

Heavy alcohol use affects many parts of the brain, but the most vulnerable cells are those associated with memory, coordination, and judgment (Presley et al., 1996; Graham et al., 2006). Mettillie (2008) clearly states that dangerous drinking is likely to affect students disproportionately. The health consequences a student may experience as a result of dangerous drinking have an expected range, from manageable situations to potentially fatal outcomes. Researchers

according to Mettillle identified negative health consequences to include hangover, unprotected sexual behaviour, alcohol dependence, blackouts, assault and even death. Alcohol abuse has physiological and psychological effects on students, as it inhibit students' performance in that their cognitive abilities are affected by even small amounts of alcohol and can persist for a substantial period of time after the acute effects of alcohol impairment disappear. For example, alcohol may impair memory by slowing down the transfer and coordination of information and may reduce students' ability to remember information that was learned prior to going out for drinks (Presley et al., 1996). Earlier studies by Presley et al., (1996), Lindsay (2006), Graham et al. (2006), Mettillle (2008), Oteyo and Kariuki (2009) indicate gross brain impairment and the decline in academic performance as a result of the dependence and heavy consumption of alcoholic beverages. These studies report a wide array or variety of consequences associated with the alcohol. For instance, among female students, consumption of heavy alcohol may increase their risk of being victims of date rape, unwanted sex, harassment and physical assault. This study specifically examines the effects of alcohol abuse on the academic performance of undergraduate students of the University of Calabar, Nigeria.

## 2. Review of related literature

Among adolescents, alcohol is the most widely used and abused drug in the world today. Awoyinfa (2012) investigated the incidence of alcohol use and abuse among University of Lagos female students. The study indicated a significant relationship between female students' use and abuse of alcohol and their social relationship, as well as a significant relationship between female students' use and abuse of alcohol and their morals. The study however revealed that no significant relationship between use and abuse of alcohol and female student academic performance. The National Center on Addiction and Substance Abuse at Columbia University (1994) noted that alcohol is responsible for 41% of academic problems and 28% of all dropouts in schools. In a similar view, Powell et al., (2004) believed academic problems and alcohol use are highly related. Wolaver (2002) opined that drinking has both a direct effect on grade point average and an indirect effect because it leads to a decrease in study hours. Williams et al., (2003) reported that the main effect of alcohol consumption is manifested in the reduced number of hours spent studying.

Wechsler (1995) was of the opinion that poor academic performance among college students is associated with alcohol consumption. Alcohol abuse has several consequences such as students failing tests, being absent in class, dropping out of school due to do poor grades. Alcohol abuse undermines the academic mission of colleges and universities. As a result, campuses may face declining retention rates, increased expenses due to vandalism, and a diminished reputation. Presley et al., (1996) reported that alcohol affects many parts of the brain, but the most vulnerable cells are those associated with memory, coordination, and judgment. They argued that alcohol has several physiological and psychological effects, which inhibit students' performance as cognitive abilities are affected by even small amounts of alcohol and can persist for a substantial period of time after the acute effects of alcohol impairment disappear. In addition to cognitive impairments, consumption of alcohol and the resulting recovery period (i.e., hang-over) wastes time that might be better spent studying or having fun.

Mettillle (2008) clearly stated that negative consequences of dangerous drinking are likely to affect students disproportionately. The health consequences a student may experience as a result of dangerous drinking have an expected range, from manageable situations to potentially fatal outcomes. Researchers according to Mettillle identified negative health consequences to include hangovers, unprotected sexual behaviour, alcohol dependence, blackouts, assault and even death. The health consequences alone are jarring enough to garner the attention of campus administrators, and students themselves. According to Lindsay (2006) dangerous drinking can lead to driving under the influence which is approximated to happen 2.1 million times annually, or about 25% of all reported cases of drunk driving. They alleged that female students who drink are at an increased risk of being victims of date rape, unwanted sex, harassment and physical assault. Further, the more an individual drinks, especially in a public forum, the more likely he or she is to be victims of violence. All students who consume alcohol at dangerous levels are at risk of a variety of consequences.

Graham et al., (2006) alleged that the time and stress spent dealing with any legal impacts of college student drinking is time and energy not spent on academic inquiries. Yet, the negative impact of dangerous drinking extends beyond those who are consuming the alcohol themselves, as researchers have found a variety of "second-hand" effects of alcohol use. Second-hand alcohol effects can be defined as situations or scenarios that impact other people who have not been drinking, such as loud noise, vandalism, among others. Oteyo and Kariuki (2009) reported that the prevalence of alcohol use has caused the concern that the students may not reach their full potential and may be at high risk to abuse drugs later in life. The toxic effects of alcohol and cigarettes may cause short term and long term health damage on students. Students, who use drugs, are likely to perform poorly in school, have strained relationship with their parents and teachers and engage in delinquent behaviors. The review of literature makes it clear that students who engage in

dangerous drinking and who takes alcohol as a hobby put themselves at risk for a wide variety of negative consequences which include cognitive disorder, missing class, failing tests, dropping out due to do poor grades and in all perform badly in examinations thereby undermining the motives or dreams of a university education. As many ends us not understanding some basic concepts and theories in their courses of study.

### 3. Purpose of the study

The purpose of the present study is to:

- ❖ Examine the possible reasons for alcohol consumption among social science students of the University of Calabar.
- ❖ Determine the frequency of alcohol consumption and number of bottles consumed by social science students.
- ❖ Analyse the effect of alcohol use and abuse on social science students' academic performance
- ❖ Find out if the frequency of alcohol use differs between sexes.

### 4. Hypotheses

The following hypotheses were investigated in the study:

- ❖ Alcohol abuse has a significant influence on students' academic performance
- ❖ The frequency of alcohol use differs between sexes

### 5. Materials and method

#### 5.1 Research design

The study adopted descriptive research design using the ex-post facto type. The researcher was interested in knowing the influence of the independent variables (alcohol abuse, frequency of alcohol consumption) on the dependent variable (academic performance) without necessarily manipulating the independent variable

#### 5.2 Participants

The population of the study comprised students in the faculty of Social Sciences of University of Calabar, Nigeria. Accidental sampling technique was used to sample one hundred and twenty students across the four departments that make up the faculty of the Social Science. Participants were approached at their lecture rooms and popular hang-outs within the faculty. The participants were made up of 84 males and 36 females. Their ages ranged from 15 to 35 years and above.

#### 5.3 Instrument

A structured questionnaire was the research instrument used to gather data for the study. The questionnaire was designed to contain questions in relation to the purpose of the study. The instrument was divided into three sections. Section A measured students' socio-economic background; section B contained questions designed to examine reasons why undergraduate students drink and frequency of alcohol use, while Section C measured the effects of alcohol use and abuse on the academic performance of students using responses ranging from strongly agree (SA) to strongly disagree (SD).

#### 5.4 Procedure

The instrument was administered to the participants with the help of trained research assistants. The instrument was collected immediately after completion. The exercise lasted for about two weeks. The status and names of respondents were made unknown.

#### 5.5 Method of data analysis

Data obtained were analyzed using frequency, tables, and charts, independent samples test and bivariate regression. The items on frequency of alcohol use and alcohol abuse (number of bottles consumed) coded for descriptive analysis

were transformed into dummy variables for inferential statistics. Statistical computation was done with the aid of SPSS 17.0 for Windows.

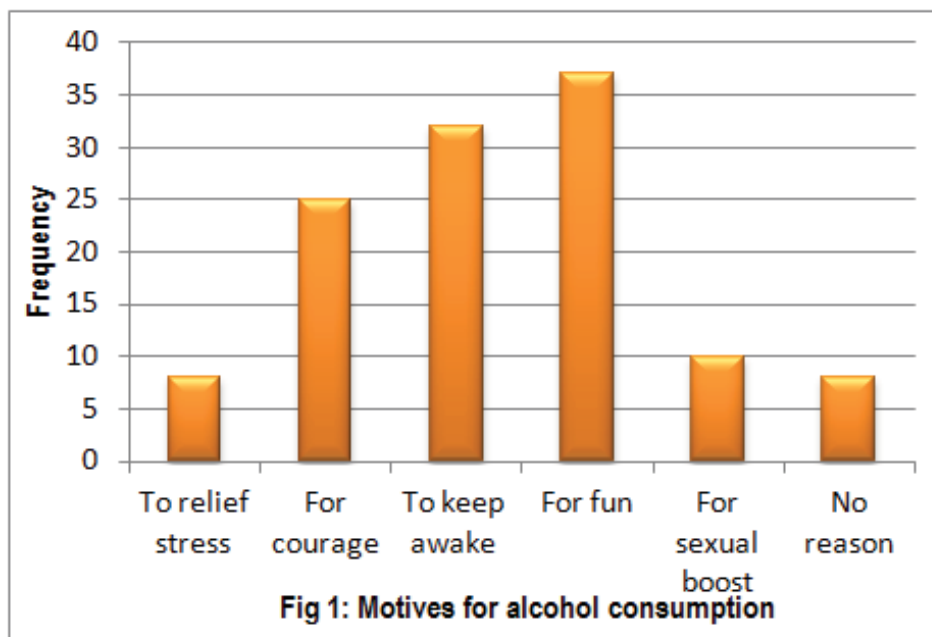
## 6. Results

### 6.1 Socio-demographic characteristics of respondents

The socio-demographic characteristic of respondents' reveals a total of 120 respondents were studied, comprising 84 males (70%) and 36 females (30%). The sex distribution with more males than women is consistent with earlier studies (Oshodi et al., 2010; Adeyemo, 2007; Onogha, 2012). The age of respondents shows that 79.2% were within the age group of 15 - 25 years, 15% were within the age group of 26 – 35 years, while those within above 35 years were 5.8%. This implies that majority of the respondents are within the age group of 15 – 35 years which falls within the adolescent period, which is the age of risky behaviour characterized by substances use and abuse. This result is similar to those obtained in previous studies in Nigeria (Oshodi et al., 2010). The marital status of the participants reveals the 111 (92.5%) were unmarried and 9 (7.5%) were married.

### 6.2 Possible reasons for alcohol consumption

The reasons for alcohol consumption among undergraduate students are shown in Fig 1. The figure indicates that for fun, stay awake (not to sleep during lectures and to read at night) and for courage (to be able to approach lecturers and make a public address) were the main reason for alcohol use among undergraduate students. Other reasons for alcohol consumption though included to relief stress and for sexual boost, while 6.7% of the respondents had no reason of consuming alcohol.



### 6.3 Frequency of alcohol consumption

Table 1 provides information on the frequency of alcohol use among undergraduate students. The information indicates that 48.3% of the participants consumed alcohol daily/everyday, possibly because they have become addicted to alcohol use, 34.2% of the respondents consumed alcoholic substances 1 – 3 times a week, 8.3% consumed alcoholic beverages weekly for various reasons. Nevertheless, 9.2% who are not addicted to the substance consumed it on occasions probably when stressed, when in trouble and when with friends they have not seen for while. The information therefore shows that participants are binge drinkers who consume alcoholic substances daily and weekly. These categories of drinkers are complete addicts who cannot stay the whole day without consuming alcohol; the substance to them is the source of energy and life. Without which life is devoid of happiness, as such the devise means to consume the substance.

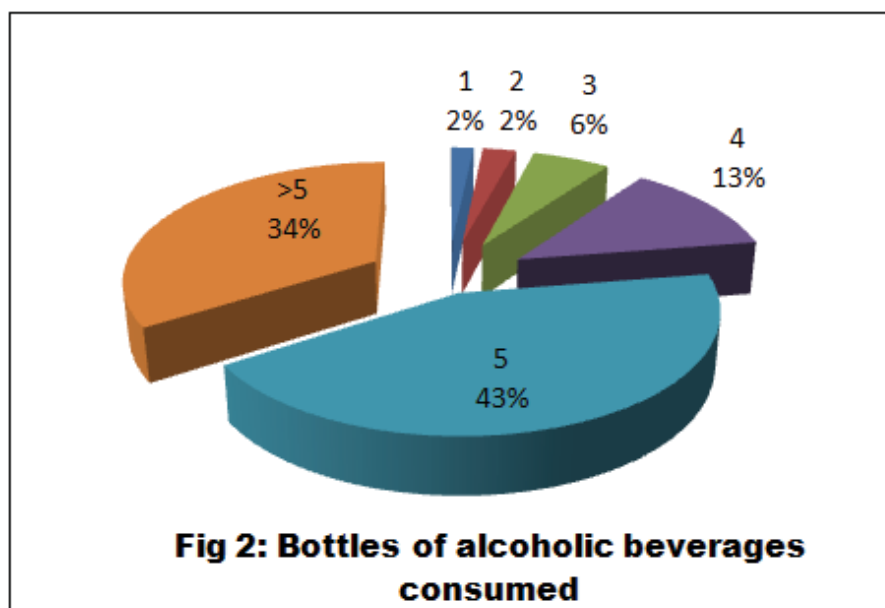
In addition, to this group of persons, alcohol is a morale booster in that it enhances their rate of assimilation, as against the popular belief that it affects normal co-ordination of the brain.

Table 1: *Routine alcohol consumption pattern*

Alcohol use	Frequency	Percent
Daily/Everyday	58	48.3
1 – 3 times a week	41	34.2
Weekly	10	8.3
Occasional	11	9.2
Total	120	100

#### 6.4 Number of alcoholic beverages consumed

Table 2 gives vital information on the bottles or numbers of alcoholic beverages consumed by undergraduate students. It reveals that majority of the participants (77.5%) consumed 5 bottles and above at a sitting, this perhaps may be referred to alcohol abuse. This habit of alcohol use may result in hang-over effect resulting in students missing classes, feeling drowsy and sleepy in school and general weakness, and may as well affect their cognitive ability. It also reveals that 12.5% and 5.8% of the participants consumed 4 bottles of alcoholic beverages at a go when they sit to drink with friends or alone. While an infinitesimal proportion (1.7%) of the participants usually consumed a bottle of alcoholic beverages. The information therefore reveals that each time undergraduate students hang-out to drink, they consume not less than 4 bottles of alcoholic beverages and above. This perhaps may be associated with the frequent outburst of violence in such places as well as the hang-over effects on the students.



#### 6.5 Number of bottles consumed and frequency of alcohol

Table 2 shows information on the number of alcoholic beverages consumed and incidence of alcohol use and abuse (binge drinking). Information in the table shows that 48.3% of respondents consumed alcohol daily, 34.2% consumed alcohol 1 – 3 times a week, while 8.3% and 9.2% consumed alcohol weekly and occasionally. The information also depicts that out of the participants that consumed 5 bottles of alcoholic beverages, 59.6% consumed 5 bottles daily, while 21.2% consumed 5 bottles of alcoholic substances 1 – 3 times a week. Interesting to know that out of the participants that consumed only 2 bottles, did so on daily basis, whereas, out of the participants that consumed more than 5 bottles, 73.2% did so 1 – 3 times a week and 26.8% did so on occasions, and none consumed this amount daily. The information therefore shows that 77.5% of the respondents consume maximum of 5 bottles of alcoholic beverages and above daily, weekly or per occasion. This group of drunks can be likened to be binge drinkers who may get drunk or tipsy as this number of bottles are consumed.

Table 2: Bottles of alcoholic beverages consumed and Frequency

Bottles consumed	Frequency				Total
	Daily	Weekly	1 - 3 times daily	Occasional	
1 bottle	2 100.0%	0 .0%	0 .0%	0 .0%	2 100.0%
2 bottles	3 100.0%	0 .0%	0 .0%	0 .0%	3 100.0%
3 bottles	7 100.0%	0 .0%	0 .0%	0 .0%	7 100.0%
4 bottles	15 100.0%	0 .0%	0 .0%	0 .0%	15 100.0%
5 bottles	31 59.6%	10 19.2%	11 21.2%	0 .0%	52 100.0%
>5 bottles	0 .0%	0 .0%	30 73.2%	11 26.8%	41 100.0%
Total	58 48.3%	10 8.3%	41 34.2%	11 9.2%	120 100.0%

$$\chi^2 = 100.428; DF = 15; p < 0.01$$

#### 6.6 Effect of alcohol use and abuse on undergraduate students' academic performance

The effects of alcohol use and abuse that binge drinking on undergraduate students' academic performance are presented in table 3. The table depicts that 67.5% of the participants strongly affirmed that over consumption of alcoholic beverages affects students' ability to read, do assignments, memorize what is read and miss classes. This means that students who are addicts may not perform excellently in examinations due to their inability to meet up with school requirements mostly doing assignments and attending classes. This is because the hang-over of the wine or liquor makes them miss classes consistently. This again is in conformity with earlier studies, like Wechsler (1995) who posits that poor academic performance among college students is associated with alcohol consumption, as it abuse contributes to students missing class, failing tests, dropping out due to do poor grades, and compromising the academic mission of colleges and universities. In all, abuse of alcoholic substances may have negative effects on student performance resulting in the decline in the overall academic performance in higher education.

Table 3: Effect of alcohol use and abuse on adolescents' academic performance

Variables	SA	A	D	SD
Alcohol affects the ability to remember salient points learnt prior to its consumption	39 (32.5)	48 (40)	23 (19.2)	10 (8.3)
Alcohol does not inhibits a student's ability to memorize sentences	18 (15)	60 (50)	29 (24.2)	13 (10.8)
Alcohol use and abuse makes students lazy in reading or doing assignment	31 (25.8)	49 (48.8)	31 (25.8)	9 (7.5)
Alcohol abuse makes students miss classes	45 (37.5)	35 (29.2)	29 (24.2)	11 (9.2)
Total	33	48	28	11
%	(27.5)	(40)	(23.3)	(9.2)

Values in bracket are percentages

#### 6.7 Analysis of the effect of alcohol abuse on students' academic performance

The hypothesis that alcohol abuse has a significant influence on students' academic performance was tested using bivariate regression. Result obtained is shown in table 4. The result shows there was a high multiple correlation (0.61) between alcohol abuse and undergraduate students' academic performance. The ANOVA result indicates that alcohol abuse had significant influence on students' academic performance ( $F = 70.115, p < 0.01$ ). The result further shows that alcohol abuse had a positive relation with the decline in students' academic performance. This is true as students who

are addicted to alcohol and as well consume more than 4 bottles of alcoholic beverages per daily, may perform poorly in the exams and end up graduating with lower grades. The t-test result and standardized coefficient further indicated that alcohol abuse which is translated on the number of bottles consumed per day exert significant effect on students' performance in examinations. It also indicates that a unit increase in binge drinking (alcohol abuse) would result in 61% of undergraduate students performing poorly in their examinations.

Table 4: *Bivariate regression result of alcohol abuse and academic performance*

Variables	Coefficients		
	b	$\beta$	t-value
Alcohol abuse (number of bottles consumed)	1.53	0.61	8.373*
Test results			
F- value	70.115*		
R	0.61		
R <sup>2</sup>	0.37		
Constant	-0.20		-0.058
DF	1/118		

\*Significant at 1% significance level

Source: SPSS Window Output Version 17.0

#### 6.8 Analysis of the frequency of alcohol use between sexes

The hypothesis that there is significant difference in the frequency of alcohol use between sexes was tested using independent samples test. Result obtained is shown in table 4. The result shows that calculated t-value of 8.436 is greater than the p-value of 0.000 at 1% significance level under 118 degree of freedom; with this, the hypothesis that there was significant difference in the frequency of alcohol use between sexes was accepted. This therefore means that frequency of alcohol use differs significantly between sexes. This indeed is apparent as the frequency of alcohol use is much higher among males than females; males are more exposed to risk and situation factors that warrant the use or consumption of alcohol than their female counterparts.

Table 4: *Independent samples test of difference in frequency of alcohol use*

Variables	N	Mean	SD	t-cal	Sig	df
Males' frequency of alcohol use	84	1.13	0.61	8.436*	0.000	118
Females' frequency of alcohol use	36	2.00	0.00			

\*Difference between means is significant at 1% alpha level

Source: SPSS Window Output Version 17.0

#### 7. Discussion of result

The result of this study reveals that majority of the respondents are within the age group of 15 – 35 years, which indeed is the age of risky behaviour characterized by substances use and abuse. For fun, stay awake (not to sleep during lectures and to read at night) and for courage (to be able to approach lecturers and make a public address) are identified as the principal reasons for the consumption of alcoholic beverages. This result is consistent with those of Oshodi et al., (2010) that students consume alcohol in order to relieve stress, to stay awake at night to study or as self medication for illness. The study shows that participants are binge drinkers who consume alcoholic substances daily and weekly. These categories of drinkers are complete addicts who cannot stay the whole day without consuming alcohol; the substance to them is the source of energy and life. Without which life is devoid of happiest, as such the devise means to consume the substance. On the number of alcoholic beverages consumed, the study indicates that majority of the participants consumed 5 bottles and above at a sitting, this perhaps may be referred to as alcohol abuse. The study therefore reveals that each time undergraduate students hang-out to drink, they consume not less than 4 bottles of alcoholic beverages and above which perhaps may be associated with the frequent outburst of violence and the hang-over effects on the usually noticed in them.

The result reveals that 48.3% of respondents consumed alcohol daily, 34.2% consumed alcohol 1 – 3 times a week, while 8.3% and 9.2% consumed alcohol weekly and occasionally. And that 77.5% of the respondents consume maximum of 5 bottles of alcoholic beverages and above daily, weekly or per occasion. This group of drunks can be likened to be binge drinkers who may get drunk or tipsy as this number of bottles are consumed. And as they keep consuming this number, they become addicted such that they will not get satisfied if they do not consume up to or above this number of bottles. The rate of drinking reported here is consistent with earlier studies (Thomas et al., 2009). The study further indicates that alcohol abuse has significant influence on students' academic performance, and that a unit increase in binge drinking (alcohol abuse) would result in 61% of undergraduate students performing poorly in their examinations. The frequency of alcohol use differs significantly between sexes. This indeed is apparent as the frequency of alcohol use is much higher among males than females; males are more exposed to risk and situation factors that warrant the use or consumption of alcohol than their female counterparts. The prevalence of alcohol use and abuse is predominant among males than females; a visit to drinking bars or restaurants will convince us. This therefore means that alcohol use is a common phenomenon among males. This result agrees with the findings of Adebijoye et al., (2010) that males accounted for 60% of substance users compared to 40% amongst females.

## 8. Conclusion/Recommendations

From the foregoing, the study reveals that the consumption of alcoholic beverages is higher among male undergraduates because they more exposed to risk and situation factors that warrant the use or consumption of alcohol than their female counterparts. The primary reasons for the consumption of alcoholic beverages are for fun, stay awake (not to sleep during lectures and to read at night) and for courage (to be able to approach lecturers and make a public address). The study further indicates that alcohol abuse affects students' academic performance. However, in order to reduce this phenomenon and improve students' performance in tertiary institutions, students should be counseled daily on the need to give up with binge drinking, as well as take alcohol lightly while in school.

## References

- Adebijoye, A. O., Faseru, B., Sangowawa, A. O. and Owoaje, E. T. (2010) *Tobacco Use amongst Out of School Adolescents in a Local Government Area in Nigeria*. Retrieved from: <http://www.substanceabusepolicy.com/content/5/1/24>
- Adeyemo, D. A. (2007) *Interpersonal Factors as Correlates of Alcohol Use among Secondary School Adolescents in Oyo State, Nigeria*. *Anthropologist*, 9(4): 321 – 326.
- Awoyinka, J. O. (2012) *An Investigation into the Incidence of Alcohol Usage and Abuse among Female Student of the University of Lagos, Nigeria, West Africa*. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*, 3 (2): 174 – 178.
- Graham, E., Kratochvil, C., Vitiello, B., Silva, S., Mayes, T., McNulty, S., Weller, E., Waslick, B., Casat, C., Walkup, J., Pathak, S., Rohde, P., Posner, K., March, J., and Columbia Suicidality Classification Group; TADS Team. (2006) *Treatment for Adolescents with Depression Study (TADS): Safety Results*. *J. Am. Acad. Child Adolesc. Psychiatry* 45, 1440–1455.
- Lindsay, V. (2006) *Factors that Predict Freshmen College Students' Preference to Drink Alcohol*. *Journal of Alcohol and Drug Education*, 50, 7-19.
- Mettille, T. T. (2008) *Cognitive Dissonance Theory and Alcohol Awareness Messages: College Student Reactions*. A thesis Submitted in Partial Fulfillment of the Requirements for the Master of Science Degree in Communication. The University of Wisconsin – Whitewater
- Onongha, G. I. (2012) *The Influence of some Factors on Alcohol Use and Abuse among Education Students of Osun State University, Nigeria*. *International Journal of Humanities and Social Sciences*, 2 (11): 276 – 283.
- Oshodi, O. Y., Aina, O. F. and Onajole, A. T. (2010) *Substance Use among Secondary School Students in an Urban Setting in Nigeria: Prevalence and Associated Factors*. *African J. Psychiatry*, 13: 52 – 57.
- Oteyo, J. and Kariuki, M. (2009) *Extent to which Selected Factors Contribute to Alcohol and Cigarette Use among Public Day Secondary Schools Male Students: A Case of Nakuru Municipality, Kenya*. *Educational Research and Review*, 4(6): 327 – 333.
- Powell, L. M., Williams, J., & Wechsler, H. (2004) *Study Habits and the Level of Alcohol Use among College Students*. *Education Economics*, 12(2), 135-149.
- Presley, C., Meilman, P. and Cashin, J. (1996) *Alcohol and Drugs on American College Campuses, Volume IV: 1992-1994*. Carbondale, IL: Core Institute.
- The National Center on Addiction and Substance Abuse at Columbia University (1994) *Rethinking Rites of Passage: Substance Abuse on America's Campuses*. Retrieved From: [http://www.casacolumbia.org/pdshopprov/files/rethinking\\_rites\\_of\\_passage\\_6\\_1\\_94.pdf](http://www.casacolumbia.org/pdshopprov/files/rethinking_rites_of_passage_6_1_94.pdf)
- Thomas, D. L., Olds, R. S., Bondy, S. J., Winchell, J., Baliunas, D. and Rehm, J. (2009) *Undergraduate Drinking and Academic Performance: A Prospective Investigation with Objective Measures*. *J. Stud. Alcohol Drugs*, 70: 776 – 785.



- Wechsler, H. (1995) *Binge Drinking on American College Campuses: A New Look at an Old Problem*. Boston, MA: Harvard School of Public Health, August 1995.
- Williams, J., Powell, L. M., & Wechsler, H. (2003) Does Alcohol Consumption Reduce Human Capital Accumulation? Evidence from the College Alcohol Study. *Applied Economics*, 35(10), 1227-1239.
- Wolaver, A. M. (2002) Effects of Heavy Drinking in College on Study Effort, Grade Point Average, and Major Choice. *Contemporary Economic Policy*, 20(4), 415-428.

