Prevalence of Alcohol Consumption and Factors Influencing Alcohol Abuse Among In-School Adolescents in Lagos State, Nigeria: Implications for Prevention Interventions

Osarenren, N., Nwadinigwe, I. P., & Ilugbuhi, M. M

Department of Educational Foundations, Faculty of Education, University of Lagos, Lagos. Nigeria **Email:**

Abstract

Alcohol is the most common drug of abuse in adolescence, much more than tobacco and other illicit drugs. This study was carried out to examine the prevalence of alcohol consumption and factors influencing alcohol use among in-school adolescents in Lagos metropolis. The study employed a descriptive survey. Four research objectives, four research questions and three research hypotheses were formulated to guide the study. A total of 450 in-school adolescents constituted the respondents. Questionnaires were used to collect relevant data for the study. Data generated and analyzed using the descriptive and inferential statistical methods showed the prevalence of alcohol consumption among in-school adolescents. The Pearson Product Moment Correlation (PPMC) and t-test whereas used to analyze the hypotheses. Findings revealed that alcohol consumption was prevalent. The PPMC analysis revealed a very significant positive correlation between peer pressure and alcohol consumption among in-school adolescents (r=0.816, p=0.001). A significant positive correlation also exists between cheap alcohol and consumption among in-school adolescents (r=0.653, p=0.021), However, a significant gender difference does not exist among in-school adolescents. It was recommended that schools' curricula should include prevention education based on pro social skills in self-control, decision-making, goal setting, strengthening motivations not to use substances, resisting pro-drug influences, analyzing tobacco and alcohol advertisements. Teachers should be trained on classroom management and improvement programmes that will foster positive and non-threatening climates for school bonding, class attendance, participation and academic progress thereby reducing the consumption of alcohol, other substances and risky behaviours.

Keywords: Prevalence, Adolescents, Alcohol consumption, Prevention, Interventions

Introduction

Alcohol consumption among adolescents is a serious public health issue globally and in Nigeria. According to the World Health Organization (WHO) (2024), alcohol consumption is now the world's third largest risk factor for disease and disability, with almost 40% of all global deaths attributed to alcohol. Underage drinking is associated with an increased risk of depression, anxiety, sleep disturbance, self-injuries, and suicidal behaviour and greater involvement in other risky behaviours and adolescents are particularly vulnerable to the harmful effects of alcohol. Early onset of drinking and heavy drinking in adolescence increases the risk of problematic drinking in adulthood and reasons for this vulnerability include genetic and neurobiological factors.

Adolescence has been viewed as the most critical period of human life where health is one of the essential requirements for proper adolescent development (Awusabo-Asare, Abane & Kumi 2004; Heslin & McNulty, 2023). Recent studies have demonstrated that exposure to alcohol during adolescence has long-term effects on the brain that persist into adulthood. Alcohol and drug use affects brain functions in adolescents. It is well documented that adolescence (i.e., the period between age 10 and 19) is a time that is often associated with increasing experimentation and risk-taking behaviours such as alcohol use (Duell et al., 2018).

The prefrontal cortex of the brain, which plays an important role in executive control functions (i.e. planning, emotional regulation, decision making) starts to develop early in life and continues after adolescence and into the early 20s is affected by early alcohol and other substances use. The phenomenon of adolescent alcohol consumption has been investigated in numerous studies (Hussong, Ennett, Cox & Haroon, 2017; Jun, Sacco, Bright & Camlin, 2015; Marshall, 2014). Findings derived from basic research indicate that adolescents and adults experience alcohol differently. In general, adolescents are less sensitive to the negative effects of alcohol consumption (sedation, motor impairment, anxiety), but more sensitive to its positive and rewarding effects. Thus, adolescents are "resistant" to the negative effects of alcohol that limit consumption progression. In general, during adolescence, more drinks are necessary to elicit a signal that it is time to stop. Conversely, adolescents are more sensitive to the effects that facilitate the maintenance, progression and escalation of alcohol consumption. This pattern of response to alcohol would be a vulnerability factor for adolescents to engage in problematic drinking trajectories.

Environmental and genetic factors may also contribute to alcohol consumption among adolescents. The environment and heritability factors play a dramatic role in controlling individual predisposition to developing alcohol abuse. Knowing the characteristics that increase the risk of adolescent alcohol use disorder can be helpful in preventing or attenuating such risk (Simons-Morton, Haynie, & Cromp, 2001; Somani & Megani, 2016).

There are a few variables that should be considered in connection to the abuse of alcohol among secondary school students in Nigeria. They include; curiosity, desire or cravings, accessibility, affordability and substance use by parents and guardians at home. A permissive parental attitude towards alcohol that may include drinking at home is associated with higher alcohol use (Ngamije, Melgosa and Yadufashije, 2017).

Objectives of the Study

The main purpose of this study was to investigate the prevalence of alcohol consumption and alcohol abuse among in-school adolescents in Lagos State, Nigeria: implications for prevention interventions.

The specific objectives of the study are:

1. To determine the prevalence of alcohol consumption and alcohol abuse among in-school adolescents.

2. To examine the influence of peer pressure on alcohol consumption among in-school adolescents.

3. To determine the influence of access to cheap alcohol on alcohol consumption among in-school adolescents.

4. To examine if there is any gender difference in alcohol consumption among in-school adolescents.

Research Questions

The following research questions were raised in relation to the objectives of the study

1. What is the prevalence of alcohol consumption among in-school adolescents in Lagos metropolis?

2. Is there any influence of peer pressure on alcohol consumption among in-school adolescents?

3. Does access to cheap alcohol have any influence on alcohol consumption among in-school adolescents

4. Is there any significant gender difference in alcohol consumption among in – school adolescents?

Research Hypotheses

The following research hypotheses were tested at 0.05 level of significance.

1. There is no significant influence of peer pressure on alcohol consumption among in-school adolescents.

2. There is no significant influence of access to cheap alcohol on alcohol consumption among in-school adolescents.

3. There is no significant gender difference in alcohol consumption among in-school adolescents.

Methodology

The research design that was adopted for this study was survey design. A total number of four hundred and fifty students participated in the study. The participants were drawn from secondary schools in Lagos metropolis. A questionnaire titled "Alcohol Consumption and Factors Influencing Alcohol Abuse Questionnaire" was used to collect relevant data for the study.

This study employed a descriptive survey design to investigate alcohol consumption and factors influencing alcohol abuse among secondary school students in Lagos metropolis. A total of 450 students participated in the study, randomly selected from five secondary schools in Lagos metropolis using stratified random sampling. First, five Local Government Areas (LGAs)/Local Council Development Areas (LCDAs) were randomly selected. Then, a simple random sampling technique was used to select one school from each of the sampled LGAs/LCDAs.

A questionnaire titled "Alcohol Consumption and Factors Influencing Alcohol Abuse Questionnaire" was specifically designed to collect relevant data for this study. The questionnaire was adapted from two validated instruments: the Monitoring the Future Survey (MTF) and the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST). The questionnaire comprised two sections: Section 1 elicited personal information from respondents, while Section 2 contained 15 items. The content validity of the questionnaire was verified by the researcher's supervisors. Test-retest reliability was conducted to determine the psychometric properties of the instrument. The Pearson Product Moment Correlation (PPMC) and t-test were used to analyze the hypotheses and investigate the relationships between variables.

Results

This section presents the analyses of the data generated from this study and the interpretations of the findings based on the research objectives and hypotheses stated. The descriptive and inferential statistical tool was used in this work. Data collected from the administered questionnaire were analyzed using the statistical package for social science to carry out the correlation analysis and t-test for the three hypotheses stated. Interpretations are therefore made accordingly based on the results generated.

Table 1: Demographic Characteristics of the Respondents (N = 450)

Variable	Category	Frequency (n)	Percentage (%)
Age	10-12	48	18.6
	13-15	149	57.8
	16-18	61	23.6
Sex	Male	136	52.7
	Female	122	47.3
Age of First Alcohol Use	<10	54	20.9
	10-12	83	32.2
	13-15	101	39.1
	16-18	20	7.8
Factors Influencing Alcohol Initiation	Peer Pressure	57	22.1
	Curiosity	57	22.1
	Feel like	88	34.1
	Influence of Adult	20	7.8
	Parental Influence	10	3.9
	Access to Cheap Alcohol	10	3.9
	Poor Educational	16	6.2

Achievemnet and School Relationship On Special Ocacsaions		215	83.3
Once a Week		28	10.9
Everyday		15	5.8

The evidence from Table 1 reveals that a total of 232 representing (51.6%) of the respondents are males while females accounted for 218 with (48.4%).

Table 2: Characteristics of Adolescents Consuming Alcohol. (N = 258)

Variable	Category	Frequency (n)	Percentage (%)
Sex	Male	323	51.6
	Female	218	48.4
Age	10-12	96	21.3
	13-15	250	55.6
	16-18	104	23.1
Ever Consumed Alcohol?	Yes	258	57.3
	No	192	42.7

The Table 2 shows the age distribution of the respondents. Those within the age bracket of 13 – 15 have the highest number of 250 with a total of 55.6%, followed by adolescents that fall within the age range of 16 – 18 having (104)23.1%. Respondents within 10 – 12 have the lowest number with 96 (21.3%).

The Table 2 also revealed that 258 adolescents with a percentage of 57.3 are into alcohol consumption while 192 adolescents with a percentage of 42.6 % do not consume alcohol of which the respective tables are therefore presented in the bar chart above.

Evidence from the Table 2 reveals the prevalence of alcohol consumption among adolescents in secondary school. Where adolescents between the ages of 13-15 years are the highest with 149 (57.8%), ages 16 - 18 accounted for 61 (23.6%) while those within the age of 10 - 12 years accounted for 18.6% of the adolescents.

The Table 2 indicates that male adolescents that are into alcohol consumption are 136 (52.7%) while the female are 122 (47.3).

It was also revealed that majority of the adolescents started consuming alcohol between the ages of 13 - 15 with a frequency counts of 101 (39.2), followed by those that started the consumption of alcohol in ages 10 - 12 with 83 (32.2%), it also showed that some of the respondents started below the age of 10 with 54 (20.9%), however, only 20 respondents with 7.8% commenced alcohol between ages 16-18 years old while non was above 18 years old as at the time of this research as such no one commenced alcohol at that age.

From the data in Table 2, majority of the adolescents consumed alcohol because they feel like with a frequency counts of 88(34.1%), those that were lured into the consumption of alcohol by peer pressure and curiosity accounts for the same frequency of 57 (22.1%). 20

(7.8%) adolescents were influenced by adults. Some of the adolescents were also induced by their poor educational achievements and school relationship with 16 (6.2%). While parental influence and access to cheap alcohol both has a frequency count of 10 (3.9%) respectively. Based on their response to why they Consume alcohol, majority of the respondents 215(83.3%) only consume alcohol on special occasion while 28 (10.9%) consume it once a week while 15 (5.8%) of the respondents consume alcohol on a daily basis. as shown in Table II above

Analysis of Research Hypotheses

Hypothesis one: There is no significant relationship between the influence of peer group and alcohol consumption among adolescents in secondary school.

Table 3: Relationship between Peer Group Influence and Alcohol Consumption

Variables	N	Mean	Sd	r.	Sig.	Remark
Peer group influence	450	9.40	8.27			
Alcohol consumption	450	11.58	10.27	.816	.001	Significant

Results from Table 3 shows r. value of (.816) which depicts that there is a strong correlation between peer group influence and alcohol consumption of adolescents. However, the significant value of (.001) which is less than 0.05, indicates that the relationship is significant. Therefore, the null hypothesis that was stated is rejected and it is concluded that peer influence has a significant relationship with alcohol consumption among adolescents in secondary school.

Hypothesis two: There is no significant relationship between access to cheap alcohol and alcohol consumption among adolescents in secondary schools.

Table 4: Relationship between access to cheap alcohol and alcohol consumption

Variables	N	Mean	Sd	r.	Sig.	Remark
Access to cheap alcohol	450	9.40	8.27			
Alcohol consumption	450	11.55	10.21	.654	.002	Significant

Results from Table 4 shows r. value of (.654) which depicts that there is an average correlation between access to cheap alcohol and alcohol consumption. However, the significant value of (.002) which is less than 0.05, indicates that the relationship is significant. Therefore, the null hypothesis that was stated is rejected and it can be concluded that access to cheap alcohol has significant relationship with alcohol consumption among adolescents in secondary school students.

Hypotheses Three: There is no significant gender difference on the consumption of alcohol among adolescents in secondary school.

Table 5: Difference in The Consumption Pattern of Alcohol Based on Gender

Variables		N	Mean	Sd	df	t.cal	t.tab	P.value	Remark
Alcohol	Male	232	16.44	6.81	98	.643			
consumption	Female	218	16.17	7.16			1.98	.448	Not Significant

The Table 5 presents the difference in the consumption pattern of adolescents based on their gender. Its findings reveal that t.cal. of (.643) is less than the table value of (1.98). Similarly, the p-value of (.448) is greater than the significant level of (0.05), this depicts that the hypothesis is not significant hence the null hypothesis which states that no significant difference exists between the consumption pattern of adolescents in secondary school based on gender is therefore accepted.

Discussions

The current study examined the prevalence of alcohol consumption and factors influencing alcohol abuse among in-school adolescents in Lagos metropolis in Nigeria. This study revealed that the highest levels of alcohol use were among adolescents aged 13-15 years at while the lowest level was within the ages of 10 - 12 years. The age of initiation for majority of the adolescents was between the ages of 13-15, followed by those the ages of 10-12. although a fewer number started below the age of 10. Those between ages 16-18 years were among the lowest to commence the use of alcohol.

The biggest influence for alcohol consumption among adolescents was because they felt like it (cravings). This is contrary to the study carried by Chongo & Sester (2019) in Zambia among 8–13-year-olds which found out that parental substance use was the biggest factor for alcohol consumption among participants. Another reason was peer pressure and curiosity in equal proportion followed by those influenced by adults. Others were induced by their poor educational achievements and school relationship, parental influence and access to cheap alcohol. This is line with the system review of literature by Ekpenyong, Jagun, Stephen, Bakre, Odejimi, … & Miller (2024) on the prevalence and factors influencing tobacco and alcohol use among adolescents in Nigeria which found out that peer influence and lack of parental monitoring were factors identified to influence adolescents' alcohol use.

On the frequency of consumption, majority of the adolescent respondents only consume alcohol on special occasions (end of year school party, birthday party, festivities). This was followed by those who consume it once a week. The lowest level of consumers was from respondents who consume on a daily basis.

In terms of gender, both male and adolescents consume alcohol than their female counterparts. This is line with studies by Olaniyi & Jimoh (2021) which stated that alcohol use is also associated with peer influence and environmental variables, while age and gender did not have any relationship with alcohol consumption. On the number of adolescents who had initiated the use of alcohol was slightly higher than those who had not in selected secondary schools in Lagos in this study.

Reference

Awusabo-Asare K, Abane A.M, Kumi-Kyereme A. (2004). Adolescent sexual and reproductive health in Ghana: A synthesis of research evidence. New York, NY: Alan Guttmacher Institute.

Crews, F. T., Vetreno, R. P., Broadwater, M. A., & Robinson, D. L. (2016). Adolescent alcohol exposure persistently impacts adult neurobiology and behavior. Pharmacological Reviews, 68(4), 1074–1109. https://doi.org/10.1124/pr.115.011361

Ding, L. (2014). Drinking in context: The influence of peer pressure on drinking among Chinese college students (Publication No. 224) [Doctoral dissertation, University of Nebraska-Lincoln]. Public Access Theses and Dissertations from the College of Education and Human Sciences. http://digitalcommons.unl.edu/cehsdiss/22

Dir, A. L., Bell, R. L., Adams, Z. W., & Hulvershorn, L. A. (2017). Gender differences in risk factors for adolescent binge drinking and implications for intervention and prevention. Frontiers in Psychiatry, 8, 289. https://doi.org/10.3389/fpsyt.2017.00289

Engberg, J., & Morral, A. R. (2006). Reducing substance use improves adolescents' school attendance. Addiction, 101(12), 1741–1751. https://doi.org/10.1111/j.1360-0443.2006.01544.x

Ekpenyong, M. S., Jagun, H., Stephen, H. A., Bakre, A. T., Odejimi, O., Miller, E., Nyashanu, M., & Bosun-Arije, S. F. (2024). Investigation of the prevalence and factors influencing tobacco and alcohol use among adolescents in Nigeria: A systematic literature review. Drug and alcohol dependence, 256, 111091. https://doi.org/10.1016/j.drugalcdep.2024.111091

Heslin, A. M., & McNulty, B. (2023). Adolescent nutrition and health: characteristics, risk factors and opportunities of an overlooked life stage. Proceedings of the Nutrition Society, 82(2), 142-156.

Hormenu, T., Hagan, J. J., & Schack, T. (2018). Predictors of alcohol consumption among in-school adolescents in the Central Region of Ghana: A baseline information for developing cognitive-behavioural interventions. PLoS ONE, 13(11), e0207093. https://doi.org/10.1371/journal.pone.0207093

Hussong, A. M., Ennett, S. T., Cox, M. J., & Haroon, M. (2017). A systematic review of the unique prospective association of negative affect symptoms and adolescent substance use controlling for externalizing symptoms. Psychology of Addictive Behaviors, 31(2), 137–147. https://doi.org/10.1037/adb0000247

Joanna Q. & Committee on substance use and prevention. (2019). Pediatrics, 144 (1) e20191356; DOI: https://doi.org/10.1542/peds.2019-1356

Jun, H. J., Sacco, P., Bright, C. L., & Camlin, E. A. (2015). Relations among internalizing and externalizing symptoms and drinking frequency during adolescence. Substance Use & Misuse, 50, 1814–1825. https://doi.org/10.3109/10826084.2015.1058826

Marshall, E. J. (2014). Adolescent alcohol use: Risks and consequences. Alcohol and Alcoholism, 49(2), 160–164. https://doi.org/10.1093/alcalc/agt180Marshall, E. J. (2014). Adolescent alcohol use: Risks and consequences. Alcohol and Alcoholism, 49(2), 160–164. doi:10.1093/alcalc/agt180

Ngamije, J., & Yadufashije, C. (2017). Parenting attitude and style and its effects on drug use behavior. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3036039

Osonuga, O., Ogunmoroti, B. D., Osonuga, A., & Da'costa, A. (2019). Alcohol use among secondary school students in Nigeria: A worrisome trend. New Nigerian Journal of Clinical Research, 8, 54–59.

Olaniyi, A. A., & Jimoh, S. (2021). Factors Associated with Alcohol Consumption among Adolescents in Selected Secondary Schools in a Local Government Area of Oyo State, Southwest, Nigeria. International Journal of Child Health and Nutrition, 10(4), 162–170. https://doi.org/10.6000/1929-4247.2021.10.04.4

Pulliainen, M., & Valtonen, H. (2017). The relationship between alcohol availability and alcohol consumption. Journal of Political Science & Public Affairs, 5, 252. https://doi.org/10.4172/2332-0761.1000252

Richter, L., Pugh, B. S., Peters, E. A., Vaughan, R. D., & Foster, S. E. (2016). Underage drinking: Prevalence and correlates of risky drinking measures among youth aged 12–20. American Journal of Drug and Alcohol Abuse, 42(4), 385–394. https://doi.org/10.3109/00952990.2015.1125492

Siwale, C. C., & Siziya, S. (2019). Factors associated with alcohol consumption among students in high-cost schools in Lusaka, Zambia. International Journal of Translational Medical Research and Public Health, 3(1), 21–30.

Somani, S., & Meghani, S. (2016). Substance abuse among youth: A harsh reality. Emergency Medicine: Open Access, 6(1). https://doi.org/10.4172/2165-7548.1000330