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Prevalence and psychological correlates of alcohol use among Nigerian university students

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ABSTRACT

Background: The problem of alcohol use among young people remains a serious public health concern.

Objective: This study investigated the prevalence and psychological correlates of alcohol use among university students in Nigeria.

Methods: A cross-sectional survey was conducted across six randomly selected Nigerian universities with a sample of 1,173 students comprising of 673 males and 500 females aged 21.68 ± 5.42 years. A structured questionnaire containing measures of alcohol use, self-efficacy, depression, and life purpose was used for data collection. Data were subjected to SPSS v.22 for statistical analysis.

Results: About one-third (31.3%) of the respondents reported current alcohol use; 16.8% were non-risk drinkers, 3.9% were hazardous drinkers, 1.5% were harmful drinkers, and 9.1% were dependent drinkers. There were significant differences in alcohol use across age groups and geographical locations. Self-efficacy ($r = -.17, p < .01$), depression ($r = .20, p < .01$), and life purpose ($r = -.31, p < .01$) significantly correlate with alcohol use.

Conclusion: Prevalence of alcohol use among university students remains high. More evidence-based prevention and intervention programmes should be targeted at this population.

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KEYWORDS

Alcohol use; depression; life purpose; self-efficacy; nigerian university students

Introduction

Alcohol is one of the most commonly used substances among young people, leading to serious problems among the population and the general society. Apart from the fact that alcohol impairs the physical and psychological health of the drinker, it also exposed others to the risk of accidents, violent behavior, and several other adverse conditions including death (Bello et al., 2017; GBD 2016Alcohol Collaborators, 2018; Nelson, 2018; Olashore et al., 2018; WHO, 2018).

Heavy alcohol among students in the high and tertiary institutions remains one of the major problem-behaviors in school and the general society (Chhoa et al., 2019; Verankar & Vaz, 2018). Alcohol use among students is strongly linked to several kinds of alcohol-related behavioral problems such as vandalism, property damage, poor academic performance, and school-drop-out, the disintegration of interpersonal relationships, poor health outcome, injuries, rape, and suicide (Govender et al., 2015; Sim et al., 2019; Skidmore et al., 2016).

In Nigeria, the problem of alcohol use among university students which has been referred to as a serious public health issue has overtime attracted the interest of several scholars (e.g., Adekeye et al., 2015; Ajayi et al., 2019; Ekpenyong & Aakpege, 2014; Obierufu, 2017; Odeyemi et al., 2014). Olley and Alade (2016) expressed that despite different kinds of efforts by major stakeholders to address the drug use problem in Nigeria the trend in the use of alcohol among students in Nigeria remains distressing.

Generally, males have been reported to be more involved in all drugs use including alcohol than females (Adamson et al., 2015; Ajayi et al., 2019; Lategan et al., 2017; Obierufu, 2017). There is, however, evidence suggesting a rise in the level of female involvement in substance use. More studies are now reporting a higher prevalence of alcohol consumption among females compared to males (e.g., Verankar & Vaz, 2018). Similarly, Ndom et al. (2013) noted that compared to male students, females are more likely to abuse alcohol.

Alcohol use among students often associates with several psychological factors. This study focused on the relationships between self-efficacy, depression, life purpose, and alcohol use. Self-efficacy describes the belief or perceived confidence in one's ability to effectively manage a high-risk situation. Concerning drinking behavior, self-efficacy has been identified as a significant factor in the alcohol consumption of students (Mase & Alan-Ajonye, 2013; Vantamay, 2009). Similarly, students with emotional distress especially depression are more likely to engage in risky alcohol use (Chhoa et al., 2019; Kenney et al., 2018). The relationship between depression and alcohol use, however, is not always linear. According to Peltzer and Pengpid (2015), a reverse U-shape relationship was found between average drinking volume and depressive symptoms. More moderate drinkers than nondrinkers and heavy drinkers had depression symptoms indicating severe depression. Besides, university students who report lower meaning in life are more likely to drink heavily and endorse more alcohol-related negative consequences (Ali, et al., 2003; Palfai et al.,

2011; Palfai & Weafer, 2006; Schnetzer et al., 2013). Csabonyi and Phillips (2017) further reported that a higher presence of meaning in life was associated with lower alcohol use among young adults.

Aforementioned, nevertheless, most empirical studies reporting the prevalence of alcohol use among Nigerian university students are restricted to single or few locations with few sample sizes. This seemingly accounts for variations in the available findings on alcohol use among Nigerian university students, hence, making a comparison of results difficult. Besides, there is a paucity of research on the relationship between life purpose and alcohol use among Nigerian students. The present study, therefore, sampled large respondents to examine the prevalence and psychological correlates of alcohol use among Nigerian university students selected across the six geo-political zones of Nigeria.

Objectives

Specific objectives of the study are to:

- (1) Investigate the prevalence of alcohol use among the target population
- (2) Examine gender, age, and geographical location differences in alcohol use among the target population.
- (3) Investigate the correlation between self-efficacy, depression, life purpose, and alcohol use.

Method

Design

A cross-sectional survey was employed in this study. The prevalence of alcohol use was investigated across six Nigerian universities. Self-efficacy, depression, and life purpose were also examined as they relate to alcohol use among the population.

Participants

One thousand, one hundred and seventy-three (1173) students were purposively selected from six randomly selected Nigerian federal universities as participants of the study. The schools selected are the University of Abuja (North-Central), Abubakar Tafawa Balewa University (North-East), Bayero University Kano (North-West), University of Nigeria Nsukka (South-East), University of Ibadan (South-West), and University of Benin (South-South). Participants age ranged between 16 and 36 ($M = 21.68$, $S.D = 5.42$), and comprised of 673 (57.4%) male and 500 (42.6%) female.

Instrument

A structured questionnaire was designed for data collection. The questionnaire is made up of five sections. The first section contains demographic information which includes Sex, Age, Ethnic group, Religion, Income level. The second section entails The Alcohol Use Disorders Identification

Test (AUDIT); the third section entails Life Purpose Questionnaire (LPQ); the fourth section entails the General Self-efficacy scale; the fifth section entails Zung Self-Rating Depression Scale.

The AUDIT self-report test is comprised of ten questions on a mostly 5 response range except for two items that have 3 response options. A total score of 40 is obtainable on the test. A score below 8 indicates the regular use of alcohol (non-risk drink). A score in the range of 8 and 15 denotes a medium level of alcohol problems (hazardous drink). The presence of alcohol problems is indicated by a score of 16 and above; 16–19 (harmful drink) and 20–40 (dependent alcohol use). Cronbach's alpha .95 was established in the present study.

The LPQ is comprised of 20 items that are responded to in a two response format of "agree" and "disagree." The test was developed to be a simple, easily administered, objective measure of life-meaning experienced by a person. Hablas and Hutzell (1982) established a one-week test-retest reliability correlation coefficient of .90 ($N = 36$). Asagba, Alarape, and Chovwen (2009) reported the reliability coefficient Cronbach's alpha of .63. Likewise in the present study, Cronbach's alpha of .70 was established.

The English version of the general self-efficacy scale is a 10 item scale developed by Schwarzer and Jerusalem (1995). The scale was developed to assess a general sense of perceived self-efficacy with the aim in mind to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events. Cronbach's alphas.81 was found in the present study.

The Zung self-rating depression scale is responded to in a four to respond range of "a little of the time" (1), "some of the time" (2), "good part of the time" (3), and "most of the time" (4). Reliability coefficients of $\alpha = .74$ was established in the present study.

Procedures

A letter of introduction was written by the Academic Staff Union of Universities (ASSU) chairman of the University of Ibadan, to each selected institution ASUU chairman for permission to research in their institutions. Participants were approached at different locations including lecture theaters, lounge, and halls of residence. The purpose of the study was well explained to prospective respondents including the fact that the study does not pose any risk or harm to them. The principal researcher also took the time to answer every question raised by the participants. Questionnaires were later administered to respondents who willingly consented to participate in the study. No individual was forced to participate in the study. Participants were also assured of the confidentiality of their responses.

One thousand eight hundred (1,800: – 300 in each of the six universities) questionnaires were administered out of which 1,232 copies were returned indicating a 68.4% returned rate. The 1232 returned questionnaires were thereafter subjected to scrutiny, and a total number of 1173 questionnaires were found to be usable and subjected to statistical analysis using the SPSS version 22.

Results

Objective 1. To investigate the prevalence of alcohol use among the target population

The results presented in Table 1 showed the overall prevalence of alcohol use among the sampled student population in Nigeria. It could be deduced from the statistics showing the prevalence of nondrinkers (68.6%) that 31.4% of the population uses alcohol. Also, 16.8% of the population reported non-risk use of alcohol, 3.9% of the students were categorized as hazardous drinkers, while alcohol use by 1.5% of the student population was already causing harm, and 9.1% of the population indicated dependence use of alcohol.

Objective 2. To examine gender, age, and geographical location differences in alcohol use among the target population.

The result in Table 2 reveals no significant gender difference in the pattern of alcohol use ($\chi^2 = 4.84, p > .05$). There were however significant differences in the pattern of alcohol use according to participants' age groups as indicated by the chi-square result showing the relationship between age group and alcohol use ($\chi^2 = 10.62, p < .05$). While 73.1% of individuals aged 18 years and below compared to 68.4% of those aged 19 years and above reported nonuse of alcohol, 9.4% of individuals aged 18 years and below compared to 7% of those aged 19 years and above were categorized as dependent alcohol users.

The results obtainable in Table 2 also showed significant differences in alcohol use across the six universities in the six geo-political zones of Nigeria as indicated by a significant relationship established from the chi-square result ($\chi^2 = 86.79, p < .01$). Considering the statistics presented on nonuse of alcohol, by implication, the location with the highest prevalence of alcohol use was the North-east (42.7%) compared to the North-central with the lowest prevalence of alcohol use (14.3%). On the other hand, the results showed that the students' population with the highest prevalence of dependent alcohol use was those in the south-south (15.1%) compared to those in the

Table 1. Overall prevalence of alcohol use among the sampled student population.

Alcohol use classification	Frequency	Percent
Non-drinker	805	68.6
Non-risk drinker	197	16.8
Hazardous drinker	46	3.9
Harmful drinker	18	1.5
Dependence drinker	107	9.1
Total	1173	100.0

Table 2. Pattern of alcohol use across gender, age group and Universities in Nigeria.

		Non drinkers	Non-risk drinkers	Hazardous drinkers	Harmful drinkers	Dependent drinkers	Total	χ^2	df	Sig
		n (%)	n (%)	n (%)	n (%)	n (%)	n (%)			
Gender	Male	449 (66.7)	114 (16.9)	30 (4.5)	13 (1.9)	67 (10.0)	673 (100)	4.84	4	.30
	Female	356 (71.2)	83 (16.6)	16 (3.2)	5 (1.0)	40 (8.0)	500 (100)			
Age Range	≤18 years	209 (73.1)	34 (11.9)	9 (3.1)	7 (2.4)	27 (9.4)	286 (100)	10.62	4	.03
	≥19 years	409 (68.4)	112 (18.7)	28 (4.7)	7 (1.2)	42 (7.0)	598 (100)			
Geo-political zones	North-central	84 (75.0)	20 (17.9)	5 (4.5)	3 (2.7)	0 (0.0)	112 (100)	86.79	20	.00
	North-east	71 (57.3)	29 (23.4)	7 (5.6)	3 (2.4)	14 (11.3)	124 (100)			
	North-west	186 (85.7)	14 (6.5)	6 (6.5)	0 (0.0)	11 (5.1)	217 (100)			
	South-east	166 (60.8)	56 (20.5)	9 (3.3)	5 (1.8)	37 (13.6)	273 (100)			
	South-west	164 (76.3)	32 (14.9)	8 (3.7)	1 (0.5)	10 (4.7)	215 (100)			
	South-south	134 (57.8)	46 (19.8)	11 (4.7)	6 (2.6)	35 (15.1)	232 (100)			
	Total	805 (68.6)	197 (16.8)	46 (3.9)	18 (1.5)	107 (9.1)	1173(100)			

Table 3. Correlations between, self-efficacy, depression, life purpose and alcohol use.

Variables	1	2	3	4	Mean	Std. Dev.
1 Self-efficacy	-				31.19	5.57
2 Depression	.252 ^a	-			41.47	8.39
3 Life purpose	.218 ^a	.289 ^a	-		107.93	15.75
4 Alcohol Use	.174 ^a	.204 ^a	.314 ^a	-	3.83	8.80

^aCorrelation is significant at the 0.01 level (2-tailed).

south-west where a prevalence of alcohol-dependent users was 4.7% among the students.

Objective 3. To investigate the correlation between self-efficacy, depression, life purpose, and alcohol use.

The result presented in Table 3 shows a significant negative correlation between self-efficacy and alcohol use ($r = -.17, p < .01$) meaning that the lesser an individual sees him/herself as capable of handling issues, the more the likelihood of he/she to engage in alcohol use. Concerning the relationship between alcohol use and depression, a significant positive correlation was found ($r = .20, p < .01$), implying that the higher the participants score on the measure of depression, the higher they score on the measure of alcohol use, which indicates that youths who are manifest or report more depression symptoms are more liable to use more alcohol. Finally, a significant negative association was found between life purpose and alcohol use ($r = -.31, p < .01$) implying that students who perceive their lives less purposefully engage more in alcohol use.

Discussion

The prevalence and psychological correlates of alcohol use among Nigerian university students were investigated in this study. About one-third (31.4%) of the respondents are current users of alcohol. The pattern of alcohol use significantly differs across age groups and universities in different Nigerian geo-political zones. Self-efficacy, depression, and life purpose were also found as significant correlates of alcohol use among the population studied.

Finding on the prevalence of alcohol use among the university student population across the six geo-political of Nigeria revealed that the majority of the students constituting 68.8% of the total sample reported that they do not take alcoholic beverages. It was further established that 16.8% of the participants reported non-risk drinking. This implies that the individuals using alcohol at this level are probably recreational or occasional drinkers, and not likely to experience any serious

adverse consequence from their alcohol use. A worrisome part of this finding is the proportion of the sample that reported the dependence level of alcohol use. This indicates a definite problematic drinking behavior to the extent that individuals drinking at this level can be said to have alcohol use disorder. In a related study by Verankar and Vaz (2018) 39.4% of the sampled student population reported alcohol consumption, with the majority (82.3%) of the drinkers being non-risk drinkers and 17.7% reported problem drinking behavior. Previous scholars have also expressed concern about the high prevalence of alcohol use among university students in Nigeria, suggesting that the phenomenon is as a result of freedom and a wide variety of new experiences, choices, and influence that the university education offers (Ajayi et al., 2019; Ekpenyong & Aakpege, 2014; Olley & Alade, 2016).

This study shows no significant relationship between gender and alcohol use. This implies no significant difference between males and females in the pattern of substance use reported. Previous findings on gender difference and alcohol use have been conflicting. While popular assertion is that males are more involved in substance use (Adamson et al., 2015; Ajayi et al., 2019; Lategan et al., 2017), other evidence points to the fact that females are more likely to abuse alcohol (Ndom et al., 2013; Varenkar & Vaz, 2018).

A significant association between age and alcohol use was however found in this study. There was a higher proportion of alcohol users among students aged 19 years and above compared to those aged between 16 years and 18 years. However, the younger students (those aged between 16 years and 18 years) reported a higher level of problem drinking than the older students (those aged 19 years and above). For instance, while 9.4% of the younger students were already dependent drinkers compared to 7% of the older students.

The findings of this study also show a significant relationship between the geographical location of students and alcohol use. Prevalence and pattern of alcohol use significantly differ among students of institutions at different geographical locations. The north-eastern students reported the highest level of alcohol use, followed by participants from south-south Nigeria. On the other hand, students from the north-west and south-west reported the least prevalence of alcohol use. A probable explanation for this difference is the cultural and religious acceptability of alcohol, as well as ease of accessibility in society. While alcohol is prohibited in the core part of the north-west, Kano in particular, on Islamic religious ground, alcohol is generally culturally acceptable and available in the south-south region of the country. This finding is in agreement with some previous studies reporting a high prevalence of alcohol use among Nigerian students in tertiary institutions. For instance, Akindutire et al (2012) reported that about half of the student population of three tertiary institutions in south-west Nigeria consume alcohol. The prevalence among undergraduate students in the south-east was however higher, with 78.4% of students sampled reporting current alcohol use (Chikere & Mayowa, 2011).

Finally, this study established that students who reported low self-efficacy attributes reported more involvement in alcohol use. This implies that students who perceive themselves as

deficient or incapable of successfully handling issues or challenges in their lives are more like to use more alcohol. Our finding aligns with previous research showing a negative relationship between self-efficacy and alcohol use (e.g., Mase & Alan-Ajonye, 2013; Vantamay, 2009). On the other hand, we found that the more the depressive symptoms reported the higher the alcohol use among the participants. This finding is consistent with previous findings that alcohol use among youth is a way of coping with depression and other emotional distress (Kenney et al., 2018). Further, Peltzer and Pengpid (2015) postulated a dual polar relationship between depression and alcohol use, such that as depression can lead to alcohol use, heavy alcohol use can also lead to depression or worsen depressed mood. On the relationship between life purpose and alcohol use, we found that students who perceive their lives less meaningful or lacking in purpose reported more alcohol use. Similarly, Asagba et al. (2016) posited that the rise in drug use in the present society is a reflection of the failure to find meaning in life and live a purposeful life. Other previous studies have also affirmed the indirect relationship between life purpose and alcohol use among tertiary students (Ali, et al., 2003; Csabonyi & Phillips, 2017; Palfai et al., 2011).

Conclusion

The study concludes that the prevalence of alcohol use among Nigerian students in tertiary institutions is high, and a significant difference exists in the pattern of use among students across different Nigerian geo-political zones. Further, age grades and location of institutions had a significant influence on the pattern of alcohol use among undergraduates. Significant relationships were also established between self-efficacy, depression, life purpose, and pattern of alcohol use.

Limitation of the study

This heterogeneity characteristic of typical Nigerian undergraduates may not be guaranteed in the study. The scope of the study is limited to undergraduates from Federal Universities across the country, despite the unique characteristics of undergraduates from state universities and other higher institutions (i.e. colleges of education, polytechnics, and mono-technics). Therefore, results from the study should be carefully generalized as there is the possibility that outcomes may vary when all factors are considered. Also, the drug use investigated was limited to alcohol, which limited the understanding of other recreational and drug use behaviors among the target population. Finally, response bias which most times are prevalent in self-report survey study like the present study; it might have influenced the result and limited people's opinion in this study.

Recommendations

Sequel to the findings of the current study, the following recommendations are suggested to bridge the gap knowledge and alleviate the prevalence of substance use among undergraduates in Nigeria.

- (1) The government and concerned authorities should integrate the service of drug prevention and rehabilitation programmes into student's counseling center or basic healthcare center to battle the increasing spate of substance use among the undergraduates (especially those in North-East) across federal universities in Nigeria.
- (2) In the interest of curbing the spate of substance use among the undergraduates, experts in the field of behavioral sciences should pay keen attention to students' emotional and psychological (self-efficacy, depression & meaning-in-life) challenges which have been identified as precipitating and perpetuating factors to substance use behavior.
- (3) It is strongly recommended a subsequent study of this nature should incorporate undergraduates from other institutions i.e. state universities, colleges of education, polytechnics, and mono-technics, to achieve a robust finding generalization.
- (4) Finally, we recommend a broader investigation of recreational and other drug use among the Nigerian postsecondary students in future related studies. Also, future researchers should consider assessing the mental health history of the students' population to determine the directional relationship between alcohol use and depression.

Disclosure statement

The authors report no conflict of interest.

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