PSYCHOSOCIAL CORRELATES OF PROBLEMATIC ALCOHOL USE AMONG STUDENTS OF TERTIARY INSTITUTIONS IN NSUKKA LOCAL GOVERNMENT AREA, ENUGU STATE

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Abstract
The study investigated psychosocial correlates of problematic alcohol use (PAU) among students of tertiary institutions in Nsukka LGA, Enugu State. The study adopted the cross-sectional survey research design. The population of the study consisted of 28,828 students of tertiary institutions in Nsukka Local Government Area. The study sample consisted of 415 students selected through Taro Yamane sample procedure. The instruments for data collection were 3-item Alcohol Use Disorder Identification Test-C (AUDITC), Depression, Anxiety and Stress scale 21-item version (DASS-21) and the 3-item Oslo Social Support Scale (OSS-3). The reliability coefficients of .52, .82 and .84 were obtained for the AUDIT-C, DASS-21 and OSS-3. Mean and standard deviation, and Pearson's r were used to answer the research questions. Multiple linear regressions were used to test the null hypotheses at 0.05 level of significance. The results showed that the participants had a hazardous level of alcohol use (AUDIT-C Score= 5.55; SD= 2.85). The results further showed that participants had a moderate level of depression (DASS 21-D Score =12.06; SD=12.38), a mild level of anxiety (DASS 21-A Score= 13.04; SD= 12.78) and received poor social support (OSS-3Score= 7.47; SD =3.33). The results also showed that anxiety (β = 0.235; t =3.257; p= 0.001) and poor social support (β = 0.122; t =-2.511; p = 0.012) were significant correlates of PAU among students. In conclusion, problematic alcohol use was prevalent among students of tertiary institutions and associated with anxiety and poor social support. The authors recommended, among others, that health educators should implement health education campaigns against problematic alcohol use among students of tertiary institutions.

Introduction
Problematic or harmful alcohol use is one of the major public health problems facing young adults globally. The harmful use of alcohol kills 2.5 million people, including 320,000 young people between 15 and 29 years of age every year (World Health Organization [WHO], 2019). Problematic alcohol use (PAU) is the third leading risk factor for poor health globally and was responsible for almost 4% of all deaths in the world (WHO, 2019).

In sub-Saharan African (SSA) including Nigeria, there is a drift towards harmful or hazardous alcohol use among young people with devastating health outcomes (Ferreira-Borges, Ketsela, Munodawafa, & Alisalad, 2013). Evidence from the 2016 Global Burden of Disease (GBD) study estimated that Nigeria was one of the countries with the highest prevalence of current alcohol use among young people aged 15 years and older in SSA, 40 to 59.9% at a population level, for both males and females (Global Burden of Disease 2016, Alcohol Collaborators, 2018). Researchers have attributed the absence of a functional policy on alcohol in Nigeria to the impairing efforts of the alcohol manufacturing companies on the formulation of effective alcohol control policies (Dumbili, 2014; Lasebikan&Gureje,2015).

Alcohol use is a major risky behaviour among young adults and students in general (Adeoye, Adeoye, Ngozi, & Ani, 2014; Lasebikan et al., 2018). Previous studies (Abasiubong

et al., 2014; Ajayi, Owolabi, & Olajire, 2019;) have reported a high prevalence of harmful alcohol use among Nigerian university students.Harmful alcohol use among students is strongly associated with many physical and mental health problems such as suicidal ideation, aggressiveness, self-harm and alcohol dependency (El Ansari, Stock, & Mills, 2013; Meda et al., 2017) .Similarly, problematic alcohol use can lead to functional impairment among students, which may result in poor academic performance, as well as increased drop-out rates (Mekonen, Fekadu, Mekonnen, & Workie, 2017). Harmful alcohol use among higher education students is often complemented using other psychoactive substances, which further exacerbate individuals' well-being (Adekeye, Adeusi, Chenube, Ahmadu, &Sholarin, 2015; Donald, 2017). In addition, alcohol use among this group could also have an economic impact such as its negative effect on labour market outcomes, specifically, labour market earnings and attachment (Böckerman, Hyytinen, &Maczulskij, 2017).

Furthermore, many factors are responsible for PAU among students including students of tertiary institutions in Nsukka Local Government Area, Enugu State. These factors occur in diverse dimensions such as demographic, social, psychological, economic, and cultural factors. However, it appears that the impacts of these factors on PAU among the students vary. Prior studies have highlighted socio-demographic factors such as age, gender, and socio-economic status of students (Eze et al., 2017; Olashore, Ogunwobi, Totego, & Opondo, 2018), perceived freedom from parental control or supports (Dumbili & Williams, 2016), dysfunctional family settings, and influence of media adverts (Dumbili, 2013), peer pressure, academic-related stress and workload and unhealthy competitions among peers (Magrys, & Olmstead, 2015). Besides the demographic factors, the influence of psychological and social factors on PAU were examined in this study. Also, gender plays a significant role in the frequency of alcohol use and males are more likely to engage in PAU more frequently than females (Owolabi, Goon, Adeniyi, &Seekoe, 2017).

Although alcohol use studies have been conducted among university students in Nigeria most of these studies explored the prevalence and patterns of alcohol use, and reported a high prevalence of alcohol use, especially among students in the northern Nigeria. Our study aimed to determine harmful alcohol use and psychosocial correlates among students of tertiary institutions in Nsukka LGA, Enugu State to identify risk and protective factors associated with PAU. Specifically, the present study explored the influence of depression, anxiety, social support and selected demographic factors on current harmful use of alcohol. The findings from this study will provide additional evidence on factors contributing to PAU among higher education students in Nigeria. This information may be valuable in informing public health policies, and the development of interventions to reduce or mitigate alcohol use-related harms among Nigeria's student population.

Purpose of the Study

The purpose of the study was to investigate psychosocial correlates of problematic alcohol use among students of tertiary institutions in Nsukka LGA, Enugu State. Specially, the study ascertained the:

1. Level of problematic alcohol use among students of tertiary institutions in Nsukka LGA;
2. Level of depression among students of tertiary institutions in Nsukka LGA;
3. Level of anxiety among students of tertiary institutions in Nsukka LGA;
4. Level of social support among students of tertiary institutions in Nsukka LGA; and
5. Relationship between problematic alcohol use, depression, anxiety, and social support among students of tertiary institutions in Nsukka LGA.

Research Questions

The following research questions guided the study.

1. What is the level of problematic alcohol use among students of tertiary institutions in Nsukka LGA?
2. What is the level of depression among students of tertiary institutions in Nsukka LGA?
3. What is the level of anxiety among students of tertiary institutions in Nsukka LGA?
4. What is the level of social support among students of tertiary institutions in Nsukka LGA?
5. What is the relationship between problematic alcohol use, depression, anxiety and social support among students of tertiary institutions in Nsukka LGA?

Hypotheses

The null hypotheses that guided the study included the following:

1. Depression, anxiety, and social support are not significant correlates of problematic alcohol use among students of tertiary institutions in Nsukka LGA.
2. Demographic factors of age, gender, year of study and religion are not significant correlates of problematic alcohol use among students of tertiary institutions in Nsukka LGA.

Methods

The study employed the cross-sectional survey research design. The population consisted of 28,828 students enrolled in tertiary institutions during the 2020/2021 academic session in Nsukka LGA, Enugu State. The breakdown of the population showed that there were 24,458, 190, 3700 and 480 students at the University of Nigeria, Nsukka, Bishop Shanahan School of Nursing, Nsukka, School of Health Technology, Nsukka and the College of Education, Nsukka, respectively. Using the Taro Yamane's (1967) formula for estimating sample size for a cross-sectional survey, at a confidence level of 95%, a precision level of ±5%, a minimum sample size of 395 participants was required for the study. To mitigate the effects of attrition or drop-out from the study, a non-response rate of 5% (395 x 0.05 = 19.8 ≈ 20) was computed and added to the minimum sample size. Hence, the sample size for the study was 415. The sample size comprised 78, 296 and 36 participants aged 15-19 years, 20-24 years and 25 -29 years, respectively. Also, there were 394, 10 and 6 students who practiced Christianity, Islam and African Traditional Religion. In addition, the sample consisted of 119,113, 79, and 99 year one, year two, year three and year four students, respectively. Furthermore, majority (95.6%) of the participants were females.

The sampling technique involved a multi-stage sampling procedure (i.e., selection of participants in stages from faculties through departments until the final sampling units were obtained). Participants were selected using simple random sampling of balloting without replacement and convenience sampling. Faculties, schools, and departments were recruited randomly for the study while the students were selected conveniently at the lecture venues during departmental courses in each department. All the recruited participants were interviewed in the available spaces provided within the departments, schools, and faculties of the tertiary institutions.

Three standardized instruments were used for data collection in this study. These include Alcohol Use Disorders Identification Test-C (AUDIT-C) developed by Bush, Kivlahan, McDonell, Fihn, and Bradley (1998) for the WHO, the 21-item Depression, Anxiety and Stress Scale (DASS-21) developed by Lovibond and Lovibond (1995), and the Oslo Social Support-3 item version (OSSS-3) developed by Dalgard et al. (2006). The Alcohol Use Disorders Identification Test for Consumption (AUDIT-C), the most popular short version of the AUDIT consisting solely of three consumption items, is approximately equal in accuracy to the full AUDIT (Bush et al., 1998). The Alcohol Use Disorders Identification Test (AUDIT) was developed as a simple alcohol screening tool for the early identification of hazardous and harmful drinking, rather than identification of people who meet the criteria for alcohol dependence. The AUDIT-Consumption (AUDIT-C) contains three questions about alcohol

consumption. The AUDIT-C contains the first three items of the 10-item AUDIT (full AUDIT version), which assesses levels of alcohol consumption, are used for computing the AUDIT-C scores. The first item, 'How often do you have a drink containing alcohol?' The AUDIT-C has a 5-point Likert type response options that range from 'never (0)' to 'four or more times a week (4)'. The second item inquires 'How many drinks containing alcohol do you have on a typical day when you are drinking?' Responses range from 'none or 0 drinks = 0' or '1 or 2 drinks = 0' to '10 or more drinks = 4. The total AUDIT-C score ranges from 0 to 12. Higher scores on the AUDIT-C imply hazardous or problematic drinking.

The DASS-21 which measures depression and anxiety was developed by Lovibond and Lovibond (1995). The DASS-21 is a self-report scale for the simultaneous assessment of depression, anxiety, and stress (Henry & Crawford, 2005). The DASS 21 has three subscales that measure depression, anxiety, and stress. Each subscale comprises seven questions with Likert response scale ranging from 0 (Did not apply to me at all) to 3 (Applied to me very much or most of the time). The DASS-21 items inquire about depressive symptoms (e.g., feeling downhearted and blue), anxiety symptoms (e.g., feeling close to panic), and general stress symptoms (e.g., having a tendency to over-react to situations). However, in the present study, only the scores for the depression (DASS 21-D) and anxiety (DASS 21-A) subscales were calculated by summing the scores for the relevant items of each sub-case then multiplied by two, following the DASS Scale manual. The DASS 21-D classifies the scores as normal (0–7), mild (8–9), moderate (10–14), severe (15–19) and extremely severe (20 and above) while the DASS 21-A classifies scores as normal (0–9), mild (10–13), moderate (14–20), severe (21–27) and extremely severe (≥ 28). Higher scores indicated a higher level of severity in each dimension.

The OSSS-3 was developed by Dalgard et al. (2006). The OSSS-3 consists of three items assessing the level of social support. The response options for the 3 items vary. Nevertheless, the OSS-3 is assigned a 5-point Likert response option. For instance, item 2 is assigned 'none (1)', 'little' (2), 'uncertain' (3), 'some' (4), and 'a lot' (5). The sum score on the OSS- ranges from 3 to 14, with high values representing strong level of social support and low values representing poor levels of social support. This continuous score was used to generate the normative data for the OSSS-3 for each scoring point as well as to determine group differences according to age and sex. Bøen, Dalgard, and Bjertness (2012) recommended that the OSSS-3 sum score can be operationalized into three broad categories of social support. Scores of 3–8 imply poor social support; scores of 9–11 imply moderate social support and scores of 12–14 imply strong social support. The reliability (internal consistency) of the AUDIT-C, DASS-21 and OSSS-3 were determined using Cronbach's alpha. The reliability coefficients of .52, .83, and .84 were obtained for the AUDIT-C, DASS-21 and OSSS-3, respectively.

There are four sets of explanatory variables, which are demographic factors like age, gender, year of study and religion. Age was categorized into 15–19 years, 20–24 years and 25-29 years, 30 years and over, while sex was grouped into male and female. The year of study was categorized into four-100 level (year one), 200 level (year two), 300 level (year three) and 400 level (year four) while religion was grouped into Christianity, Islam, and African traditional religion. The information on the demographic characteristics is contained in Section A of the instruments. The questionnaires used in this study were pre-piloted before administering to study participants. Prior to data collection, a pilot study was conducted among 20 participants in a public university-Enugu State University of Science and Technology (ESUT) in Enugu, Enugu State. The feedback from the pilot study indicated the participants did not have any difficulty responding to the items in the questionnaires. Thus, no modifications were made to the questionnaires. Research assistants, recruited and briefed on

modalities of questionnaire administration for this study, administered the instruments to consenting students.

To gain access to the university, schools and the respondents, a letter of introduction obtained from the Head of Department, Human Kinetics and Health Education, Faculty of Education, University of Nigeria, Nsukka was presented to the management of the institutions requesting for permission and co-operation to conduct the study. The researchers and their research assistants administered copies of the questionnaires to the respondents and were supervised to ensure that there is no exchange of ideas when completing the questionnaires. Four hundred and fifteen copies of the questionnaires were administered to the students to fill out. However, only 410 copies were properly filled out and used for data analyses. The retrieved copies of the questionnaires were examined for completeness of information. All copies of the instruments not duly filled out were discarded.

The data analysis was performed using the IBM Statistical Package for the Social Sciences (SPSS version 25). The variables of interests were subjected to descriptive and inferential statistics. Simple frequency percentage, mean and standard deviation were used to describe the outcome variable. A bivariate analysis using Pearson's correlation coefficient was performed to explore the relationship between problematic alcohol use and depression, anxiety, and social support. Also, multiple linear regression was estimated to examine the independent effect of each explanatory variable on problematic use of alcohol and its significant correlates. The analysis was performed at a 95% confidence level, and an Alpha value less than 0.05 was considered statistically significant.

Results

The results of the study are presented in this section. Out of 415 students interviewed, only 410 (98.8%) responses were analyzed. The remaining five were excluded for incomplete responses. The remaining 410 copies were used for analysis.

Research Question One: What is the level of problematic alcohol use among students of tertiary institutions in Nsukka LGA?

Table 1

Level of Problematic Alcohol Use among Students of Tertiary Institutions in Nsukka LGA (n= 410)

S/N	AUDIT-C Items	$\bar{X}$	SD
1	How often do you have a drink containing alcohol?	1.88	1.29
2	How often do you have standard drinks containing alcohol on a typical day?	2.03	0.44
3	How often do you have six or more drinks on one occasion?	1.64	1.12
	AUDIT - C Score	**5.55**	**2.85**

Note: AUDIT-C Score of 0-2= Normal drinking level.
AUDIT-C Score of ≥ 3= Hazardous alcohol use.
Source: Bush et al. (1998)

Results in Table 1 show that students of tertiary institutions in Nsukka LGA had hazardous alcohol use level (AUDIT-C Score= 5.55; SD= 2.85). This implies that students of tertiary institutions in Nsukka LGA engaged in problematic alcohol use.

Research Question Two: What is the level of depression among students of tertiary institutions in Nsukka L.G.A., Enugu State?

Table 2

Level of Depression among Students of Tertiary Institutions in Nsukka LGA (n = 410)

S/N	Depression items	$\bar{X}$	SD
1.	I found it hard to wind down	0.62	0.73
2.	I couldn't seem to experience any positive feelings	0.77	0.88
3.	I found it difficult to work up the initiative to do things	0.95	0.94

S/N		$\overline{X}$	SD
4.	I felt that I was using a lot of nervous energy	1.06	0.92
5.	I felt that I had nothing to look forward to	0.71	0.86
6.	I found myself getting agitated	0.98	0.89
7.	I felt down-hearted and blue	0.98	0.93
	DASS-D Score	**12.06**	**12.38**

Note. Scoring protocol for interpretation DASS 21-D Scores
DASS 21-D score of 0-7=Normal; DASS 21-D score of 8-9= Mild; DASS 21-D score of 10-14=Moderate;
DASS 21-D score of 15-19=Severe; DASS 21-D score of ≥ 20 =Extremely Severe
Source: Lovibond & Lovibond (1995)

Results in Table 2 show that students of tertiary institutions had a moderate level of depression (DASS 21-D Score = 12.06; SD = 12.38). Hence, they experienced reasonable level of depressive symptoms.

Research Question Three: What is the level of Anxiety among students of tertiary institutions in Nsukka LGA, Enugu State? Data answering this question are contained in Table 3.

Table 3

Level of Anxiety among Students of Tertiary Institutions in Nsukka LGA (*n* = 410)

S/N	Anxiety items	$\overline{X}$	SD
1	I was aware of dryness of my mouth	0.68	0.93
2	I experienced breathing difficulty	0.48	0.76
3	I tended to over-react to situations	1.28	0.94
4	I experienced trembling (e.g., in the hands)	0.83	0.93
5	I was worried about situations in which I might panic and make a fool of myself	1.20	1.02
6	I found it difficult to relax	1.07	0.91
7	I was intolerant of anything that kept me from getting on with what I was doing	1.03	0.90
	Anxiety Score	**13.04**	**12.78**

DASS 21-4 score of 0-9 = Normal; DASS 21-4 score of 10-13 = Mild; DASS 21-4 score of 14-20 = Moderate;
DASS 21-4 score of 21-27 = Severe; DASS 21-4 score of ≥ 28 = Extremely Severe
Source: Lovibond & Lovibond (1995)

Results in Table 3 show that students of tertiary institutions in Nsukka LGA had Mild level of Anxiety (DASS 21-A Score = 13.04; SD = 12. 78).

Research Question Four: What is the level of social support among students of tertiary institutions in Nsukka L.G.A., Enugu State?

Table 4

Level of Social Support among Students of Tertiary Institutions in Nsukka LGA (n= 410)

S/N	OSSS-3 Items	$\overline{X}$	SD
1.	I have many people around me that can offer help in times of great troubles or adversities.	1.93	1.02
2.	People show much interest and concern in whatever you do	2.94	1.17
3.	It is very easy to get practical help from neighbors when I need it	2.60	1.14
	Total OSSS-3 Score	**7.47**	**3.33**

Scoring protocols for OSS-3 Scale
OSSS-3 Score of 3-8= Poor Support; OSSS-3 Score of 9-11=Moderate Support;
OSSS-3 Score of 12-14 = Strong Support
Source: Bøen, Dalgard, and Bjertness (2012)

Results in Table 4 show that students of tertiary institutions in Nsukka LGA received poor support (OSSS-3 score = 7.47; SD =3.33) from family members, friends and neighbours. The results imply that students of tertiary institutions in Nsukka LGA did not have any instrument or emotional support from friends.

Research Question Five: What is the relationship between problematic alcohol use (PAU) and depression among students of tertiary institutions in Nsukka LGA? Data answering this question are contained in Table 5.

Table 5
Pearson's *r* Correlations between Problematic Alcohol Use, Depression,
Anxiety and Social Support among Students of Tertiary Institutions (*n* = 410)

	PAU	Depression	Anxiety	Social Support
PAU	1			
Depression	.053	1		
Anxiety	.148**	.740**	1	
Social Support	-.128**	-.021	-.036	1

**. *Correlation is significant at the 0.01 level (2-tailed).*

Guidelines for Interpretation of Correlation Coefficients
± 0.00 to ± 0.29= None too weak relationship; ± 0.30 to ± 0.59= Moderate relationship; ± 0.60 to ± 0.99= Strong relationship; ± 1.00= Perfect relationship
Source: Nwagu and Agbaje (2017)

Table 5 shows that there was a weak positive relationship between problematic alcohol use and depression (*r* = .053) and anxiety (*r* = .148) among students of tertiary institutions in Nsukka LGA. The result suggests that having sad moods and fear is a risk factor for students' problematic alcohol use. However, social support was inversely related to problematic alcohol use (*r* = -.128). This implies that social support is a protective factor against problematic alcohol use. In other words, the more social support a student receives the less he/she engages in problematic alcohol use.

Hypothesis One: Depression, anxiety, and social support are not significant correlates of problematic alcohol use among students of tertiary institutions in Nsukka LGA, Enugu State. Data testing this hypothesis are contained in Table 6.

Table 6
Summary of Multiple Linear Regression Analysis showing Correlates of Problematic Alcohol Use among Students of Tertiary Institutions in Nsukka LGA (n = 410)

Model	R	R^2	Adj. R^2	F	β	t	P	95% C.I. for B LB	UB
	0.210	0.044	0.037	6.213	-	15.00	0.000	5.31	6.92
Depression					-0.12	-1.71	0.089	-0.12	0.01
Anxiety					0.24	3.26	0.001	0.04	0.16
Social Support					-0.12	-.2.51	0.012	-0.22	-0.03

Significant at $p \leq 0.05$
Note: *R = Correlation Coefficient; R^2 = R-Squared; Adj. R^2 = Adjusted R-squared; F = F-ratio/value; β = Beta standardized coefficient; t = t-test value; p-value; C.I. = Confidence interval for Beta; LB = Lower boundary; UB= Upper Boundary*

Table 6 shows the combined effect of the independent variables (depression, anxiety and social support) on problematic alcohol use was significant, $F(3, 406)= 6.213$; $R= 0.210$; $R^2 = 0.044$; adj.$R^2 =0.037$; $p=0.000$). In addition, about 4.4% (i.e., 0.044 x 100) of the variance or charge in the dependent variable (PAU) was accounted for by the psychosocial correlates. Also, Table 6 shows the relative contributions of each of the correlates on PAU. Concerning the most potent contributions, the results show that anxiety ($\beta = 0.24$; $t =3.26$; $p =0.001$), and social

support (β = -0.122; t = -2.51; p = 0.012) are significantly related to PAU among students. Anxiety was a strong risk factor for PAU and social support is a protective factor against PAU. In other words, increased level of anxiety leads to PAU while increased or high level of social support reduces PAU among students. In contrast, depression is not a significant correlate of PAU among the students. Since the p-value for the entire model is less than 0.05 level of significance, the null hypothesis was rejected.

Hypotheses Two: Age, gender, study year and religion are not significant correlates of problematic alcohol use among students of tertiary institutions in Nsukka LGA, Enugu State. Data testing this hypothesis are contained in Table 7.

Table 7

Summary of Multiple Linear Regression Analysis showing Correlates of Problematic Alcohol Use among Students of Tertiary Institutions in Nsukka LGA (n = 410)

Model	R	R²	Adj. R²	F	β	t	p	95% C.I. for B	
								LB	UB
	0.261	0.068	0.059	7.397		7.195	0.000	5.18	9.07
Age					-0.085	-1.561	0.119	-0.66	0.08
Gender					-0.161	-3.326	0.001	-2.23	-0.57
Study year					0.088	1.644	0.101	-0.03	0.30
Religion					0.184	3.712	0.000	0.63	2.05

Significant at $p \leq 0.05$

Note: R = Correlation Coefficient; R^2 = R-Squared; Adj. R^2 = Adjusted R-squared; F = F-ratio/value; β = Beta standardized coefficient; t = t-test value; p-value; C.I. = Confidence interval for Beta; LB = Lower boundary; UB= Upper Boundary

Table 7 shows the combined effect of correlates or independent variable (age, gender, study year and religion) on problematic alcohol use was significant, F(4, 405)= 7.397; R= 0.261; R^2= 0.068; adj. R^2 =0.059; p=0.000). Furthermore, about 6.8% (0.068 x 100) of the variance in the dependent variable (PAU) was accounted for by the demographic factors. Table 7 further shows the relative contributions of each of demographic factors on the dependent variable (PAU). Regarding the most potent contributions, the results show that gender (β= -0.161; t=-3.326; p =0.001), and religion (β = 0.184; t = 3.712; p= 0.000) are significant demographic correlates of PAU among students. While religion was a strong risk factor for PAU; gender is a protective factor against PAU. In other words, gender was inversely related to PAU. The results suggest that religion predisposes students to PAU while gender (being a female) seems to protect against PAU. Since the p-value for the entire model is less than 0.05 level of significance, the null hypothesis was rejected.

Discussion

Research evidence suggests that no amount of alcohol use is helpful to the body (Choudhry, Agardh, Stafström, & Östergren, 2014; Donald, 2017). Again, alcohol use is associated with health, academic, physical and psychosocial effects (Choudhry et al., 2014; Donald, 2017). Hence, alcohol use or its problematic use among students of tertiary institutions in Nsukka LGA, Enugu State is a serious cause for concern. The study findings show that students of tertiary institutions had hazardous alcohol use level. The plausible reason for the finding is that many students have access to alcoholic drinks in the school premises or campuses in Nigeria. Also, alcohol is used as a recreational substance and served in many social events in Nigeria, where students can engage in excessive drinking without payment. This finding is consistent with previous Nigerian studies (Adeoye et al., 2014; Adekeye et al., 2015). The finding is also consistent with those of Mekonen, Fekadu, Chane, and Bitew (2017) who reported a high level of problematic alcohol consumption among many students in Wolaita Sodo University, southern Ethiopia.

In addition, the study findings show that students had moderate and mild levels of depression and anxiety, respectively. This finding is not surprising because students of tertiary institutions face numerous challenges such as overwhelming academic workload, failure to meet up with academic expectations, poor academic achievement and low level of exam performance and dearth of learning infrastructure in the schools. The finding underscores the need to integrate systematic counselling and preventive mental health services into the routine medical examinations for new students admitted into tertiary institutions in Nigeria. This will facilitate early detection of students at risk of depression and anxiety so that care and supported activities can be initiated early to prevent future complications such as increased morbidity, suicidal ideation and eventual suicide. The finding is consistent with those of Nwachukwu et al. (2021) who reported low prevalence of depression (10.1%) and moderate anxiety (26.5%) among university students in a public university in Nigeria. The finding also agrees with those of Yakasai et al. (2022) who reported mild level of depression (13.02 ± 2.31), severe level of anxiety (17.49 ± 3.67) among physiotherapy students recruited from eight universities located in different regions in Nigeria.

Results in Table 4 show that students of tertiary institutions in Nsukka LGA received low or poor social support. This finding is surprising given that show social support can potentially reduce the positive relationship between poor mental health and problematic drinking. Poor social support received by students can be due to a changing shift in the communal nature of Nigeria societies due to Western influences, disintegrating cultural norms, a lack of trust and pervading insecurity. The finding suggests the urgent need for social intervention programmes or schemes that strengthen social support for students in the schools and communities where they live. The finding contradicts those of Fang and Lung (2022) who reported that their participants received quality social support.

Findings in Table 5 Table show that there was a weak positive relationship between problematic alcohol use, depression, and anxiety among students of tertiary institutions in Nsukka LGA. The association between PAU and mental health problems among students is plausible because previous studies (Tembo, Burns, & Kalembo, 2017; Sæther, Knapstad, Askeland & Skogen, 2019) have confirmed this strong link with attendant health consequences. Table 5 further shows that social support wasinversely related to problematic alcohol use. This finding is expected because perceived social support of peers/friends and family members is highly protective against psychiatric symptoms, adding a natural preventive effect for people at great risk ofr mental illness. Fang and Lung (2022) reported individuals who have low level of social support and poor mental health, particularly men, are at risk for heavy drinking or problematic alcohol use. Thus, this finding is reasonable.

Findings in Table 6 show that anxiety and social support are significantly related to PAU among tertiary institution students. As earlier explained, mental health problems are strong risk factors for PAU while social support offers a buffering effect against PAU among diverse populations, including students. The finding is consistent with prior studies (Tembo et al., 2017; Sæther et al., 2019; Fang & Lung, 2022).

Findings in Table 7 show that gender and religion significantly correlated with PAU among tertiary institution students in Nsukka LGA. This result is not different from previously documented evidence (Ajayi et al., 2019). Males are generally risk takers and tend to engage in risky behaviours, including PAU more than females (Lasebikan et al., 2018). Consequently, the possible higher rate of PAU was found among male students than female students. Hence, gender is a strong correlate of PAU among tertiary institution students. The link between religion and alcohol use has been well established in the literature (Najjar, Young, Leasure, Henderson, & Neighbours, 2016). Religion has been identified to have a protective effect on alcohol consumption and riskier pattern of use. Some religions such as Islam forbid the alcohol use, due to its psychotropic effects, whereas Christianity and Judaism do not forbid alcohol

consumption and may even use it in rituals (Luczak et al., 2014). This could explain the significant relationship between PAU and religion observed among the participants in this study.

Conclusion

Problematic alcohol use is high among tertiary institution students in the study area. There are moderate and mild levels of depression and anxiety, respectively among students. However, the level of social support received by students was poor. Problematic alcohol use was significantly associated with anxiety, social support, gender and religion among students. There is need to implement measures in controlling alcohol manufacturing and marketing as well as policies regulating alcohol outletst established around educational institutions.

Recommendations

1. Health educators should implement health education campaigns against problematic alcohol use among students of tertiary institutions.
2. There should be regular screening for identification of risk factors of mental health problems such as depression and anxiety by health workers for all students in tertiary institutions.
3. There is need to organize public health interventions aimed at reducing alcohol use among tertiary institution students in Nsukka LGA, Enugu State.
4. The management of tertiary institutions should restrict sales of alcoholic drinks in the campuses to mitigate problematic alcohol use among students.

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