

RELATIONSHIP BETWEEN SUBSTANCE ABUSE AND DEPRESSION AMONG STUDENTS OF TERTIARY INSTITUTIONS IN OYO STATE, NIGERIA: IMPLICATIONS FOR MENTAL HEALTH COUNSELLING

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Abstract

The study examined the relationship between substance abuse and depression among students of tertiary institutions in Oyo State. The descriptive survey of correlational type was adopted for the study. Multi-stage sampling procedure was used to select 419 respondents from three tertiary institutions in Oyo State. The research instrument, titled: “Substance Abuse and Depression Questionnaire (SADQ)” was used to collect data from the respondents. The findings revealed that there were high levels of substance abuse and depression among students of tertiary institutions in Oyo State. A significant relationship was found between substance abuse and depression among respondents ($r= 0.199$, $p<.05$). Another finding showed that there were significant differences between male and female respondents regarding substance abuse and depression in tertiary institutions in Oyo State. It was therefore recommended that students struggling with substance abuse should prioritise their mental health by seeking professional counselling to address underlying issues such as trauma, stress, or anxiety, which contribute to depression.

Keywords: Substance abuse, depression, students, tertiary institutions, Oyo State

Introduction

The problem of substance abuse among students of tertiary institutions has become one of the most disturbing health-related phenomena in Nigeria and other parts of the world. Tertiary institutions are recognised as stressful environments, and the transition to higher education can be a challenging period marked by increased academic pressure, social changes, and emotional

stress, which can contribute to the development of substance abuse problems. Students are vulnerable to substance abuse, and the most commonly abused substances include alcohol, cough syrup, tobacco, marijuana, codeine, tramadol, amphetamines, heroin, inhalants, Rohypnol, as well as aphrodisiacs (also known as libido boosters and popularly called 'manpower' in the streets, 'qurantaashi' in the northern part of the country, and 'aleko' in southwest Nigeria). These are substances that arouse sexual desire or increase a person's capacity for sexual activities.

Substance abuse refers to the use of illegal or unprescribed drugs or substances that students smoke, inhale, or inject in order to achieve physical or mental effects for personal reasons (Ishaya, Akawu, Abdullahi, & Maiganga, 2024). The Report of the National Survey on Alcohol and Drug Use in Nigeria revealed that the prevalence rate of alcohol was 39%; the lifetime prevalence rates of tranquillizers, heroin, opiates, cannabis, and cigarettes were 11.3%, 4.6%, 7.2%, 6.6%, and 12.2% respectively; and the lifetime prevalence rate for cocaine was 3.3% (Ojo & Ogunyemi, 2021). Ogunsanwo and Akintola (2023) showed that a high level of substance abuse was observed among students aged between 18 and 35 years, with alcohol being the most widely used substance; sedatives, heroin, cocaine, and non-medical use of prescribed opioids were also identified. These types of substances, as revealed in previous studies, could lead to schizophrenia, bipolar disorder, impulsivity, academic frustration, acute anxiety, memory loss, impaired judgement, social isolation, as well as depression.

Depression is a condition characterised by persistent low mood and a lack of enthusiasm for activities, which affects a person's thoughts, behaviours, emotions, and overall well-being. It significantly impacts students' academic performance and overall health. Those who have experienced adverse life events, such as academic failures, broken relationships, or substance abuse, are more vulnerable to depression (Olufemi & Olanrewaju, 2021). Depressed students often report feelings of sadness, anxiety, emptiness, hopelessness, and worthlessness, and may struggle with guilt, irritability, or restlessness. They lose interest in once-pleasurable activities, may experience changes in appetite, and have trouble concentrating, making decisions, or remembering things. In some cases, students may even contemplate or attempt suicide. Additional signs include sleep disturbances, persistent fatigue, low energy, and unexplained physical ailments like aches and digestive problems (Olaniyan & Osinowo, 2021). To cope,

some students may turn to substances like alcohol, cannabis, marijuana, or opioids in an attempt to improve their mood.

The problem of substance abuse contributing to the high rates of depression among students in tertiary institutions has remained largely unaddressed in Oyo State. According to the Center for Disease Control and Prevention (2024), students with substance abuse cases face a high risk of depressive symptoms. Onifade, Agboola, and Ayeni (2021) revealed that 66% of tertiary institution students in Ogun, Osun and Lagos States who engaged in substance abuse experienced symptoms of depression. Many studies have demonstrated strong relationships between substance abuse and depression in Nigeria. Isah, Olanipekun, and Alabi (2021) showed in their study that substance abuse is a good predictor of depression among students. For instance, Ojo and Ogunyemi (2021) in Nigeria highlighted the link between substance abuse and depression among students, showing that those with depressive symptoms were more likely to engage in substance abuse. The study suggested that students often use substances to cope with their emotional distress, although this coping mechanism typically worsens their depressive symptoms over time. Also, the study identified the influence of gender, with males more likely to use substances as a coping mechanism, while females showed higher rates of depressive symptoms, indicating a need for gender-sensitive approaches in treatment.

Fagbamigbe and Adebisi (2020) investigated **correlates of depression and substance abuse among youths in Osun state**, revealing that substance abuse was a significant predictor of depressive symptoms. The study found that students who engaged in substance abuse were at higher risk of developing depression, particularly when substance abuse was prevalence. Gender differences were also observed, with males more likely to engage in substance abuse and females more likely to suffer from depression. This research emphasised the influence of socioeconomic factors, such as poverty and lack of access to mental health resources, on the relationship between substance abuse and depression, along with the importance of gender-sensitive approaches to address these issues effectively.

Bakare and Okafor (2021) explored the impact of substance abuse on depression among male and female students in Ogun State, Nigeria. The study found that substance abuse adversely affected students' academic outcomes by intensifying depressive symptoms. Depression was

identified as a mediator in the relationship between substance abuse and academic performance, with depressed students experiencing greater academic challenges. Significant gender differences emerged: male students were more likely to engage in substance use, while female students were more susceptible to academic challenges stemming from depression. Olaniyan and Osinowo (2021) examined gender differences in the relationship between substance abuse and depression among undergraduates in Lagos State, Nigeria. Their findings indicated that female students who used substances were more prone to developing depression compared to their male counterparts. The study highlighted that gender-specific factors, such as societal expectations and coping mechanisms, significantly influence the interplay between substance abuse and depression.

Ibrahim, Yahaya, and Ahmed (2021) conducted a study on the prevalence of substance abuse and depressive symptoms among university students in North-west, Nigeria. The results highlighted a notable occurrence of both issues within the student demographic. The research indicated that students who frequently consumed substances like alcohol and marijuana were more likely to experience depression, illustrating a distinct link between substance abuse and worsening mental health. Furthermore, the findings revealed that male students were more likely to engage in substance abuse, while female students reported higher levels of depression, underscoring the need for gender-specific interventions.

Adebiyi, Fagbamigbe, and Atif (2020) also explored the prevalence of depression and its association with substance use among university students in Ondo State, finding a significant correlation between the two, particularly among male students who used substances as a coping mechanism. Ogundele, Adebayo, and Olamiju (2020) investigated **depressive symptoms and substance abuse among secondary school students in Southwest Nigeria**, revealing that those engaged in substance abuse were more likely to report depressive symptoms. Their study emphasised the need for comprehensive mental health services that address both substance abuse and depression.

Adekunle, Adeyemi, and Oluwatosin (2020) focused on secondary school students in Southwest Nigeria. The study revealed that substance abuse was a strong predictor of depression, particularly among those facing academic, psychological, and social pressures. Olufemi and Olanrewaju (2021) also contributed to this body of work by exploring the gender differences in

substance use and depression among students in Southern Nigeria, finding that while males were more likely to engage in substance abuse, females exhibited higher rates of depression. Onifade, Agboola and Ayeni (2021) extended this research to adolescents, showing that the relationship between substance use and depression was influenced by factors such as peer pressure, family dynamics, and socioeconomic status. Their findings revealed that exposure to physical/sexual violence and alcohol use, peer pressure, risky sexual activities, substance abuse, and violent acts were the precursors of depression.

Akanbi, Oladele, and Adebayo (2020) conducted a comprehensive study on the role of social support in the relationship between substance use and depression among adolescents in Kwara State. Their results showed that adolescents who used substances like alcohol and cannabis had a higher likelihood of experiencing depression. The researchers suggested that this association might be due to the psychological distress and social challenges associated with substance use. Additionally, the study explored gender differences, finding that males were more inclined to engage in substance use, while females were more vulnerable to depressive symptoms.

Kelder, Murray, Orpinac, Prohorov, McReynolds, Zhang, and Roberts (2023) examined the relationship between depression and substance use among minority middle-school students, showing a strong relationship between heavy drinking and depressive symptoms within this demographic. The results suggest that settings that normalise alcohol use, such as college campuses, may contribute to increased substance use and the development of depression. They also observed significant gender differences, with males being more inclined to engage in binge drinking, while females were more susceptible to experiencing depressive symptoms as a result.

Despite the contributions of earlier research on substance abuse and depression among students in different states or regions of Nigeria, to the best of the researchers' knowledge, none of the previous studies have combined the relationship between substance abuse and depression among students of tertiary institutions in Oyo State, Nigeria. The main focus of this study was to contribute to knowledge and fill the existing gap in the aforementioned studies in the literature. Therefore, this research examined the relationship between substance abuse and depression among students of tertiary institutions in Oyo State, Nigeria.

Aim and Objectives

The primary aim of this study was to examine the relationship between substance abuse and depression among students of tertiary institutions in Oyo State, Nigeria. Specifically, the objectives of this study were to:

- a. determine the levels of substance abuse and depression among students of tertiary institutions in Oyo State.
- b. examine whether significant difference exist between male and female students on substance abuse and depression in tertiary institutions in Oyo State.

Research Questions

1. What is the level of substance abuse among students of tertiary institutions in Oyo State?
2. What is the level of depression among students of tertiary institutions in Oyo State?

Research Hypotheses

1. There is no significant relationship between substance abuse and depression among students of tertiary institutions in Oyo State.
2. There is no significant difference between male and female students on substance abuse in tertiary institutions in Oyo State.
3. There is no significant difference between male and female students on depression in tertiary institutions in Oyo State.

Methodology

Research Design

According to Adeyemi (2023), a research design is a detailed plan or strategy that researchers develop to address their research questions or objectives, guiding every step from data collection to analysis and interpretation. This study adopted a descriptive correlational survey design to examine the relationship between substance abuse and depression among students of tertiary

institutions in Oyo State. It also sought to determine the variations between male and female students concerning substance abuse and depression in these institutions.

Population, sample and sampling procedure

The population of the study comprised 472,984 students from tertiary institutions in Oyo State, Nigeria. To obtain a representative sample, the researcher employed a multi-stage sampling procedure. The total student population in the selected institutions was 47, 675. Following the recommendation by Research Advisor (2006), a sample size of 381 respondents was suggested for a population of this size. To account for attrition rate, 10% of the sample size was added, resulting in a total of 419 respondents.

In the first stage, a purposive sampling technique was employed to select one institution from each senatorial district in Oyo State, considering the population size of each institution. The institutions selected for this study were Federal College of Education (Special), Oyo, representing Oyo Central Senatorial District; Oke-Ogun Polytechnic, Saki, selected from Oyo North Senatorial District; and University of Ibadan, chosen from Oyo South Senatorial District. In the second stage, a proportional sampling technique was used to select respondents from each institution included in the study.

Table 1: Proportional Sample of Students in the Selected Institutions in Oyo State

S/N	Institution	Type	Targeted Population	Sample
1	University of Ibadan, Ibadan	Federal	33,420	293
2	Oke-Ogun Polytechnic, Saki	State	7, 005	62
3	Federal College of Education (Special), Oyo	Federal	7, 250	64
	Total		47, 675	419

In the third stage, a simple random sampling technique was employed to select 419 students using the dip-hat method during the research process. This technique ensured that all respondents had an equal opportunity to be included in the study, without any form of bias.

Instrumentation

The instruments employed in this study were adapted, with modifications made to 20 items in Drug Abuse Scale while 20 items out of 21 in Beck Depression Inventory were considered by the researchers. The Substance Abuse Scale, originally developed by Harvey A. Skinner in 1982, and the Beck Depression Inventory (revised edition), developed by Aaron T. Beck in 1996, were the basis for the questionnaire. Hence, the instrument was later titled the "Substance Abuse and Depression Questionnaire (SADQ)". It was divided into three sections: Section A focused on demographic data of the respondents, while Section B consisted of twenty items designed to assess the level of substance abuse among students. Section C comprised twenty items aimed at measuring the level of depression among students. Both Sections B and C were structured using a four-point Likert scale format: Strongly Agree =4points, Agree =3points, Disagree =2points, and Strongly Disagree =1point.

Psychometric Properties of the instrument

Validity: To evaluate the validity of the instrument, the researchers gave it to five experts from the Department of Counselling and Human Development Studies at the University of Ibadan for content validity analysis. The feedback and suggestions provided by these experts were used to modify certain items in the instrument.

Reliability: To assess the reliability of the instrument, the researchers used the test-retest method with the same group of 20 students from the Department of Psychology at the University of Ilorin. This involved administering the questionnaire twice, with a two-week interval between administrations. The scores obtained from the two administrations were then correlated using Pearson's Product Moment Correlation Coefficient. The obtained correlation coefficient for the Substance abuse Scale was 0.81, while for the Beck Depression Inventory, it was 0.83, both significant at the 0.05 alpha level.

Procedure for Scoring

The scale used in this study consisted of 80 items in total, with each section on substance abuse and depression comprising 20 items (20 items x 4 points = 80). The minimum possible score for

sections B and C was 20 (20 items x 1 point = 20). The scores varied from the highest possible score of 80 to the lowest possible score of 20, resulting in a range of 60 points. The midpoint of this range was calculated as 30 (60 divided by 2). To establish the cutoff point, this midpoint was subtracted from the highest score, resulting in a cutoff score of 50 (80 minus 30). Therefore, fifty percentages were used to measure the levels of substance abuse and depression among students of tertiary institutions in Oyo State. Scores above 50% showed high levels of substance abuse and depression, while scores below 50% indicated low levels among students of tertiary institutions in Oyo State, Nigeria.

Method of Data Analysis

The collected data were subjected to statistical analysis, where percentages were used to assess the levels of substance abuse and depression among students of tertiary institutions in Oyo State. Hypothesis one was tested using the Pearson Product Moment Correlation, while hypotheses two and three were tested using Independent t-test statistical tool. All statistical tools were tested at 0.05 significance level.

Results

Out of the 419 questionnaires distributed to the respondents, 417 were completed accurately and accounted for, constituting the dataset used for this study. The following section presents the results of the data obtained from the respondents in terms of frequency and percentage.

Research Question 1: What is the level of substance abuse among students of tertiary institutions in Oyo State?

Table 2: Percentage Distribution of Respondents' Level of Substance Abuse

Level	Frequency	Percentage
Low	131	31.4
High	286	68.6
Total	417	100.0

Table 2 indicated high level of substance abuse among respondents. The result revealed that 131 respondents (31.4%) had low level of substance abuse, while 286 respondents (68.6%) had high level of substance abuse. This implied that the majority of respondents had high level of substance abuse.

Research Question 2: What is the level of depression among students of tertiary institutions in Oyo State?

Table 3: Percentage Distribution of Respondents' Level of Depression

Level	Frequency	Percentage
Low	130	31.2
High	287	68.8
Total	417	100.0

Table 3 showed high level of depression among respondents. Specifically, 130 respondents (31.2%) had low level of depression, while 287 respondents (68.8%) had high level of depression. This implied that the majority of respondents had high level of depression

Hypotheses Testing

Three null hypotheses were formulated and examined in this study. These hypotheses were tested using both the Pearson Product Moment Correlation (PPMC) and Independent t-test statistical tools.

Hypothesis One: There is no significant relationship between substance abuse and depression among students of tertiary institutions in Oyo State

Table 4: Pearson's "r" Showing the Relationship between Substance Abuse and Depression of the Respondents

Variables	N	Mean	SD	df	Cal. r-value	p. value
Substance abuse	417	67.51	10.86	415	.199*	.000
Depression	417	68.27	12.94			

*Significant at 0.05 alpha level

The Table 4 revealed that calculated p-value of 0.00 was less than 0.05 level of significance. Since the calculated p-value was less than alpha level of significance, the hypothesis was rejected. Thus, substance abuse had significant relationship with depression among respondents in Oyo State. This implied that increase in substance abuse results to increase in depression, hence, substance abuse and depression were significantly related.

Hypothesis Two: There is no significant difference between male and female students on substance abuse in tertiary institutions in Oyo State

Table 5: Mean, Standard Deviation and t-test showing difference between male and female respondents on substance abuse

Gender	N	Mean	SD	df	Cal. t-value	Crit. t-value	p-value
Male	188	47.07	4.894	415	2.62*	1.96	0.044
Female	229	45.96	4.723				

* Significant at 0.05 alpha level

Table 5 showed the calculated t-value of 2.62 and critical t-value of 1.96. The table revealed that the calculated t-value was greater than the critical t-value, and since the p-value was less than 0.05. Hence, the hypothesis was rejected. This indicated that there was a significant difference between male and female respondents on substance abuse in tertiary institutions in Oyo State.

Hypothesis Three: There is no significant difference between male and female students on depression in tertiary institutions in Oyo State

Table 6: Mean, Standard Deviation and t-test showing difference between male and female respondents on depression

Gender	N	Mean	SD	df	Cal. t-value	Crit. t-value	p-value
Male	188	46.15	5.261	415	1.98*	1.96	0.024
Female	229	46.74	4.635				

* Significant at 0.05 alpha level

Table 6 showed the calculated t-value of 1.98 and critical t-value of 1.96. The table revealed that the calculated t-value was greater than the critical t-value, and since the p-value was less than 0.05. Hence, the hypothesis was rejected. This indicated that there was a significant difference between male and female respondents on depression in tertiary institutions in Oyo State.

Discussion of Findings

The findings revealed that students of tertiary institutions in Oyo State had high level of substance abuse. The finding is in line with Adekunle, Adeyemi and Oluwatosin (2020) who found that substance abuse is higher among students who have school problems. The results agree with the Akanbi, Oladele, and Adebayo (2020) which indicated that 68% of students abuse alcohol and other substances in school. The reason for this finding might be that the pressure to meet academic expectations, handle workload, and succeed in examinations often pushed students towards substance abuse as a coping mechanism for stress, anxiety, or burnout.

Another finding indicated that students of tertiary institutions in Oyo State had high level of depression. The finding collaborates with Adebisi, Fagbamigbe, and Atif (2020), which revealed that depression was a serious health problem among university students' population. Ogunsanwo and Akintola (2023) also revealed that depression was one of the most common problems among university students. The reason supporting this finding could be due to rigorous academic demands, continuous assessments, and project deadlines, which often contribute to stress and anxiety, leading to depression when students struggle to cope.

Finding further indicated that there were significant relationship between substance abuse and depression among students of tertiary institutions in Oyo State. This is consistent with the findings of Onifade, Agboola, and Ayeni (2021) who stated that students with high substance abuse are also at high risk of experiencing depression. In addition, Adekunle, Adeyemi, and Oluwatosin (2020) found that high level of substance abuse, in turn, had a negative impact on emotional burnout among medical students and contributes to anxiety and depression. The reason supporting this finding might be that students in tertiary institutions face academic pressure, social challenges, and personal stressors. Some turn to substance abuse as a way to

cope with these issues. However, instead of alleviating their problems, substance abuse could exacerbate feelings of sadness, hopelessness, and lead to depression.

Findings showed that there was a significant difference between male and female respondents on substance abuse in tertiary institutions in Oyo State. This implied that male and female respondents were significantly different with regards to substance abuse in tertiary institutions in Oyo State. The reason could be due to socialisation and identity formation; male students might associate substance abuse with certain ideas of masculine, independence, or rebellion, making them more likely to experiment with drugs or alcohol. For females, socialisation often emphasises caregiving, responsibility, and adherence to societal norms, leading them to refrain from engaging in substance abuse as a means of identity formation.

Findings also showed that there was a significant difference between male and female respondents on depression in tertiary institutions in Oyo State. This implied that male and female respondents were significantly different with regards to depression in tertiary institutions in Oyo State. The reason could be due to help seeking behaviour; females are generally more likely to seek help for mental health issues, which might lead to higher diagnosis of depression. Males, due to societal norms of masculinity, might be less likely to seek professional help or openly discuss their emotions, leading to fewer reported cases of depression, even if they experience it at similar rates.

Implications of Findings for Mental Health Counselling

The relationship between substance abuse and depression among students in tertiary institutions in Oyo State presents significant counselling implications. Substance abuse and depression are often interconnected, with each condition potentially exacerbating the other. Students who struggle with depression may turn to substances as a form of self-medication, attempting to alleviate their emotional pain. Conversely, substance abuse can lead to or worsen depressive symptoms due to the chemical effects on the brain and the resulting social, academic, and financial problems. For mental health counsellors, understanding this bidirectional relationship is crucial in developing effective interventions that address both issues simultaneously.

Considering the notable differences in substance abuse and depression between male and female students, counsellors should implement gender-sensitive strategies in their interventions. Research indicates that male students are more likely to engage in substance abuse, possibly due to societal norms that encourage risk-taking behaviours among male students. On the other hand, females might experience higher rates of depression, often linked to societal pressures and emotional stressors. These gender differences suggest the need for tailored counselling strategies that consider the unique challenges faced by male and female students. For instance, male students might benefit from programmes that focus on healthy coping mechanisms and emotional expression, while female students might require support in building self-esteem and resilience against societal pressures.

Counselling interventions should also focus on prevention and early identification of substance abuse and depression among students. This can be achieved through regular mental health screenings, workshops on substance abuse awareness, and promoting healthy lifestyle choices. Counsellors should collaborate with faculty and administration to create a supportive environment that encourages students to seek help without fear of stigma. Furthermore, peer support programmes can be particularly effective in reaching students who may be hesitant to approach counsellors directly. By fostering a culture of openness and support, counsellors can play a key role in reducing the prevalence of substance abuse and depression among students in tertiary institutions in Oyo State.

Conclusion

The study concluded that there were high levels of substance abuse and depression among students in tertiary institutions in Oyo State, and a relationship was found between substance abuse and depression. This means that students who abuse substances are at a greater risk of experiencing depression. The study also revealed significant differences between male and female students regarding substance abuse and depression in tertiary institutions in Oyo State. This finding highlights the importance of addressing both substance abuse and depression simultaneously in interventions to prevent the escalation of these conditions.

Recommendations

Based on the findings of the study, it was recommended that;

1. Students should be exposed to regular awareness campaigns and educational programmes organised by school counsellors, health professionals, and the school management, which educate them on the dangers of substance abuse, its consequences, and the importance of seeking help and managing mental health effectively in school.
2. Students should have access to student wellness programmes provided by school counsellors, mental health professionals, and student support services, which address depression by focusing on stress management, mindfulness, and self-care to help them develop healthy coping mechanisms and improve their mental health.
3. Students struggling with substance abuse should prioritise their mental health by seeking professional counselling to address underlying issues such as trauma, stress, or anxiety, which contribute to depression.
4. Students should be guided by professionals such as counsellors, psychologists, social workers, and educators to develop effective substance abuse prevention and treatment strategies that address the distinct needs and differences between males and females in school.
5. Students should have access to school support services (i.e. counselling and mental health services) that recognise and respond to gender differences in depression experiences, providing care and specialised interventions that address the distinct needs of males and females in school.

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