
Perceived Impact of Substance Abuse on Academic Performance, Physical Health, and Mental Well-Being Among Undergraduates in Ekiti State, Nigeria

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Abstract: *Substance abuse among university undergraduates constitutes a growing public health challenge in Nigeria, with documented consequences for academic achievement and physical and psychological health. Evidence-based data on students' perceptions of these consequences remain limited, particularly in South-Western Nigeria. The study assessed undergraduates' knowledge of substance abuse and their perceived impacts on academic performance, physical health, and mental well-being at Ekiti State University (EKSU), Ado Ekiti. A descriptive cross-sectional design was employed. Using a multistage sampling technique, 102 300-level undergraduates across four departments were recruited. Data were collected through a validated structured questionnaire and analyzed using SPSS version 29. Chi-square tests were conducted at a 0.05 significance level. The*

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majority of respondents (66.7%) correctly defined substance abuse, with alcohol identified as the most commonly abused substance (56.9%). Approximately 80.4% perceived substance abuse as causing absenteeism and poor academic outcomes, while 79.4% acknowledged its negative effect on physical health and 89.2% on mental health. Chi-square analysis showed a significant relationship between substance abuse knowledge and academic performance ($\chi^2 = 20.251, p < 0.05$), but no significant association with year of study ($\chi^2 = 9.354, p > 0.05$). Undergraduates demonstrated satisfactory awareness of substance abuse and its harms, yet prevalence remains concerning. Targeted campus-based health education, counseling services, and institutional policies are urgently needed to curb substance misuse and protect students' well-being and academic potential.

Keywords: Substance abuse, Academic performance, Mental health, Physical health, Undergraduates

INTRODUCTION

The American Psychiatric Association (APA, 2022) considers substance abuse to be the harmful or hazardous use of psychoactive substances including alcohol, illicit drugs, and prescription medications that result in serious effects on the physical, mental, or social functioning of a person. The magnitude of drug use and drug use disorder (DUD) is alarming on the global level: it was estimated that in the previous year 275 million people used drugs globally, and more than 36 million had drug use disorder (DUD) (United Nations Office on Drugs and Crime [UNODC], 2021). It is particularly worrying in Nigeria with an estimated 14.3 million (UNODC, 2021) people of working age (15-64) that use drugs which is more than double the global average.

Among the subpopulations, the university students are a vulnerable group. The common stressors and struggles that accompany the transition to college, such as academic demands, social change, and increased independence, make it easy for youth to try drugs and alcohol (Tembo et al., 2021). Substance abuse is consistently associated with memory problems, decreased concentration, absenteeism, low grade point averages (GPAs) and increased risk of dropping out (Arria et al., 2021). In addition to academic consequences, prolonged substance use is linked to cardiovascular issues, liver and kidney damage, and nutritional deficiencies and a range of mental health problems, such as depression, anxiety and psychosis (Schulenberg et al., 2021; National Institute on Drug Abuse [NIDA], 2022).

Studies indicate that as much as 20% – 40% of University students in Nigeria have been using drugs in some form or another (Yusuf et al., 2021). According to a study conducted at the University of Lagos, 28.6% of people use psychoactive substances, the most common of which is alcohol (69.0%) (Bamidele et al., 2023). Even with these numbers, there is limited empirical research that has specifically examined the self-perceived consequences of substance abuse among

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college students and how that may impact students' academic and health-related outcomes especially in Ekiti State.

This study, therefore, sought to assess: (1) the knowledge level of undergraduates regarding substance abuse; (2) their perceived impacts of substance abuse on academic performance; (3) their perceived impacts on physical health; and (4) their perceived impacts on mental well-being at Ekiti State University (EKSU), Ado Ekiti, Ekiti State, Nigeria.

METHODS

A descriptive cross-sectional design was employed. The study was conducted at Ekiti State University (EKSU), Ado Ekiti, a state-owned institution in South-Western Nigeria, comprising 11 faculties and approximately 28,000 undergraduates. The target departments were selected from the Faculty of Education (Department of Social Science Education; Department of Guidance and Counselling) and Faculty of Science (Department of Microbiology; Department of Science Laboratory Technology), representing a purposive cross-disciplinary sample. The target population consisted of 300-level students across the four selected departments (N = 600). Applying Taro Yamane's (1967) formula at a 9% margin of error yielded a sample of 102 participants: $n = 600 / [1 + 600(0.09)^2] \approx 102$. A five-stage multistage sampling procedure was implemented: (1) simple random selection of two faculties from nine; (2) purposive selection of two departments per faculty; (3) simple random selection of 300-level students; (4) proportionate allocation across departments; and (5) convenience sampling to reach eligible participants. All 102 distributed questionnaires were completed and returned (100% response rate).

A 30-item structured questionnaire adapted from validated tools (Adeleke et al., 2021) was used. It comprised five sections: (A) socio-demographic data (7 items); (B) knowledge of substance abuse (7 items); (C) perceived impact on academic performance (5 Likert-scale items); (D) perceived physical health impact (5 items); and (E) perceived mental health impact (6 items). Face and content validity were confirmed by the research supervisor. Reliability was established via pilot testing at the Federal University Oye-Ekiti (FUOYE) with 10% of the sample, who were excluded from the main study. Data were analyzed using SPSS version 29. Descriptive statistics (frequencies and percentages) were computed for all variables. Chi-square tests were applied to examine hypothesized associations between knowledge and academic performance, and between knowledge and year of study. Statistical significance was set at $p < 0.05$.

Ethical approval was obtained from the Research Ethics Committee of Ekiti State University. Participation was voluntary; verbal informed consent was obtained, and the purpose of the study was explained to all participants. Anonymity and confidentiality of data were assured throughout the study.

RESULTS

Of the 102 respondents, the largest age groups were 16–20 years and 21–25 years, each representing 43.1% of the sample. Females constituted 59.8% (n = 61). The Yoruba ethnic group predominated (85.3%), and 90.2% were single. Most respondents were Christian (95.1%) and from monogamous family backgrounds (91.2%). Science Laboratory Technology (37.3%) had the highest departmental representation. Full socio-demographic details are presented in Table 1.

Table 1: Socio-Demographic Characteristics of Respondents (N = 102)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	16–20	44	43.1
	21–25	44	43.1
	26–30	9	8.8
	31 and above	5	4.9
Gender	Female	61	59.8
	Male	41	40.2
Ethnicity	Yoruba	87	85.3
	Igbo	6	5.9
	Others	5	4.9
	Hausa	4	3.9
Marital Status	Single	92	90.2
	Married	8	7.8
	Divorced	2	2.0
Department	Science Laboratory Technology	38	37.3
	Microbiology	27	26.5
	Social Science Education	24	23.5
	Guidance and Counselling	13	12.7
Religion	Christianity	97	95.1
	Islamic	4	3.9
	Traditional	1	1.0
Family Background	Monogamous	93	91.2
	Polygamous	9	8.8

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Knowledge of Substance Abuse

The majority of respondents (66.7%) correctly identified substance abuse as the excessive and harmful use of drugs or alcohol despite negative consequences. Alcohol was cited as the most commonly abused substance by 56.9%, followed by marijuana (27.5%). First-time prescription misuse was most often attributed to a friend's prescription (32.4%), and the most frequently reported age of initiation was 19–20 years (42.2%). The majority (66.7%) identified continued use despite physical and psychological harm as the defining sign of substance use disorder, and 81.4% correctly labeled this pattern as addiction. Stress and coping (33.3%) and peer pressure (32.4%) were the most frequently cited reasons for substance use. A summary of knowledge responses is presented in Table 2 and 3

Table 2: Knowledge of Substance Abuse among Undergraduates

Variables	Categories	Frequency	Percentage (%)
Which of the following best defines substance abuse?	Using drugs or alcohol only for recreational purposes	16	15.7
	Using drugs or alcohol to cope with stress or emotional difficulties	10	9.8
	Excessive and harmful use of drugs or alcohol, despite negative consequences	68	66.7
	Using prescription drugs only as directed by the doctor	8	7.8
	Total	102	100
What is the most commonly abused substance among undergraduates?	Alcohol	58	56.9
	Marijuana	28	27.5
	Prescription drugs	6	5.9
	Illicit drugs	10	9.8
	Total	102	100
How does prescription substance abuse often begin?	with a recreational use	23	22.5
	with a valid prescription from a doctor	15	14.7
	With a friend's prescription	33	32.4
	with a family member's prescription	31	30.4
	Total	102	100
What is the average age of first-time substance use among undergraduates?	15-16 years old	10	9.8
	17-18 years old	32	31.4
	19-20 years old	43	42.2
	21-22 years old	17	16.7
	Total	102	100
Which of the following is a sign of substance use disorder?	Using substances only on weekends	5	4.9
	Using substances to cope with stress	14	13.7
	Using substances despite physical and psychological harm	68	66.7
	Using substances only with friends	15	14.7
	Total	102	100
	Tolerance	8	7.8

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What is the term for substance use disorder that is characterized by continued use despite physical and psychological harm?	Dependence	6	5.9
	Addiction	83	81.4
	Withdrawal	5	4.9
	Total	102	100
What are the reasons for substance abuse?	Peer pressure	33	32.4
	Curiosity and experimentation	28	27.5
	Genetic predisposition	7	6.9
	Stress and coping	34	33.3
	Total	102	100

Table 3: Summary of Knowledge Responses on Substance Abuse (N = 102)

Item	Correct / Most Endorsed Response	% Respondents
Definition of substance abuse	Excessive and harmful use despite negative consequences	66.7
Most commonly abused substance	Alcohol	56.9
Onset of prescription misuse	Friend's prescription	32.4
Age of first-time use	19–20 years	42.2
Sign of substance use disorder	Continued use despite physical and psychological harm	66.7
Term for harmful persistent use	Addiction	81.4
Primary reasons for substance use	Stress and coping / Peer pressure	33.3 / 32.4

Perceived Impact on Academic Performance

The majority of respondents perceived substance abuse as highly detrimental to academic performance. More than 80% (80.4%) agreed or strongly agreed that substance abuse leads to absenteeism and poor school performance. The perception that substance use impairs concentration was affirmed by 80.4% (strongly agreed + agreed), while 85.2% believed students could fail tests due to hangovers or substance-related mental fatigue. Almost all respondents (90.2%) agreed that substance abusers risk institutional disciplinary sanctions. Notably, only 14.7% believed substance use enhanced assimilation, with 85.3% actively disagreeing with that premise.

Perceived Impact on Physical Health

Slightly more than half of the respondents (51.0%) disclosed prior use of psychoactive substances. A large majority (79.4%) acknowledged that substance abuse negatively affects physical health, and an equally high proportion (79.4%) associated it with body weakness and fatigue. Awareness of long-term organ damage to the liver and kidneys was high (88.2%), although only 11.8% personally reported physical symptoms such as weight loss, poor appetite, or digestive problems. Full responses are presented in Table 4.

Table 4: Perceived Impact of Substance Abuse on Physical Health of Undergraduates

Variables	Categories	Frequency	Percentage (%)
Have you ever used any psychoactive substances	Yes	52	51.0
	No	50	49.0
	I don't know	0	0.0
	Total	102	100
Do you think substance abuse has negative effects on the physical health of students?	Yes	81	79.4
	No	21	20.6
	I don't know	0	0.0
	Total	102	100
Do you believe using substances can cause weakness or fatigue in the body?	Yes	81	79.4
	No	21	20.6
	I don't know	0	0.0
	Total	102	100
Have you experienced weight loss, poor appetite, or digestive issues due to drug use?	Yes	12	11.8
	No	90	88.2
	I don't know	0	0.0
	Total	102	100
Do you think substance use can cause long-term damage to organs like the liver or kidneys?	Yes	90	88.2
	No	12	11.8
	I don't know	0	0.0
	Total	102	100

Perceived Impact on Mental Health

A strong majority of respondents (89.2%) believed substance abuse can negatively affect mental health. Over half (53.9%) had personally felt emotionally unstable or anxious following substance use, and 58.8% associated drug use with depression. Mood swings due to substance use were reported by 48.0%, while 85.3% agreed that regular use compromised concentration and focus. Sleep disturbances following psychoactive substance use were reported by 24.5% of respondents. Mental health responses are detailed in Table 5.

Table 5: Perceived Impact of Substance Abuse on Mental Health (N = 102)

Variables	Categories	Frequency	Percentage (%)
Do you believe that substance abuse can negatively affect a student's mental health?	Yes	91	89.2
	No	4	3.9
	I don't know	7	6.9
	Total	102	100
Have you ever felt emotionally unstable or anxious after using drugs or alcohol?	Yes	55	53.9
	No	47	46.1
	I don't know	0	0.0
	Total	102	100
Do you think that drug use can lead to depression among students?	Yes	60	58.8
	No	42	41.2
	I don't know	0	0.0

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	Total	102	100
Have you experienced mood swings or sudden changes in emotions due to substance use?	Yes	49	48.0
	No	53	52.0
	I don't know	0	0.0
	Total	102	100
Do you think regular use of substances affects students' ability to concentrate or focus?	Yes	87	85.3
	No	15	14.7
	I don't know	0	0.0
	Total	102	100
Have you ever experienced sleep disturbances after taking any psychoactive substance?	Yes	25	24.5
	No	77	75.5
	I don't know	0	0.0
	Total	102	100

Hypothesis Testing

Chi-square testing revealed a statistically significant relationship between undergraduates' knowledge of substance abuse and their academic performance ($\chi^2 = 20.251$, $df = 9$, critical value = 16.919; $p < 0.05$), leading to rejection of the null hypothesis. Conversely, no statistically significant association was found between knowledge of substance abuse and year of study ($\chi^2 = 9.354$, $df = 9$, critical value = 16.919; $p > 0.05$), and the null hypothesis was retained. Results are summarized in Table 6.

Table 6: Chi-Square Results for Tested Hypotheses

Null Hypothesis	χ^2 Calculated	p-value / χ^2 Critical	Decision
No significant relationship between knowledge of substance abuse and academic performance	20.251	0.05 / 16.919	H ₀ Rejected
No significant relationship between knowledge of substance abuse and year of study	9.354	0.05 / 16.919	H ₀ Retained

DISCUSSION

The results showed that 66.7% knew the definition of substance abuse and 81.4% knew the characteristic end-point of persistent harmful use – addiction, demonstrating an underlying awareness among students. Yet, the high rate of reporting of previous psychoactive substance use, alcohol, tramadol and cannabis, among 51.0% highlights the disconnect between knowledge and actions. This is in line with the 85% of Nigerian undergraduates that could identify commonly used psychoactive drugs, but only less than half of them were aware of the comprehensive health and academic implications of these drugs, according to Adeleke et al (2021). Peer influence (32.4%) and stress-coping (33.3%) were the dominant motives for substance use which can be consistent with the literature that suggested general social and psychological vulnerability in

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university settings (Justin et al., 2021; Wing et al., 2020; Oluwole et al., 2026; Ogunjobi et al., 2023).

The negative perception of substance abuse on academic performance, with more than 80% relating it with absenteeism, concentration deficits, and failure of tests was found to be consistent with Danladi and Fagbemi (2022) who stated that 64% of students who use substances at two federal universities in Nigeria blamed their substance abuse on absenteeism and low GPAs. The high chi-square value ($\chi^2 = 20.251$, $p < 0.05$) further indicates that knowledge about substance abuse is related to awareness of the academic consequences, which provides further justification for education campaigns on campus. Chinedu and Obasi (2023) also found that regular users believed that they were less productive and more cognitively disorganized, while Okeke and Jimoh (2022) reported that cognitive and academic decline ensued from what was initially believed to be performance-enhancing stimulant drugs.

In terms of physical health, it is interesting to note that the majority of students' awareness of long-term organ damage (88.2%) and of general physical deteriorating (79.4%) is theoretical and does not come from personal experience, while the rate of personally experienced symptoms is low (11.8%). This is similar to the result of Ogundipe and Ajayi (2021) which revealed that 78% of the students in the study in Nigeria said that they had known of and experienced severe physical complications. Chukwuemeka and Dauda (2023) also found that students focus more on the short-term effects of alcohol consumption, such as dizziness, nausea, and irregular heartbeat, and underestimate its long-term effects, such as damage to organs, as they age, which aligns with the optimistic bias among young adults.

Of particular note is the mental health, as 89.2% of respondents believed that substance abuse has had a negative effect on mental health and 53.9% personally felt that they were emotionally unstable or anxious after substance abuse. The figures are also similar to those of Omolayo et al. (2023), who reported that 65% of the undergraduates of three federal universities in Nigeria attributed drug use to emotional disconnection, reduced social motivation, and panic attacks. Chinedu and Musa (2022) also noted that 49% of the students who used substances initially did so to boost their mood or alleviate stress, but 76% went on to have serious mental health issues. The perceived ambivalence of substances as coping and psychological harm (as evidenced in the current data) suggests a need to encase this ambivalence in messages of prevention.

The results of the relationship between knowledge and year of study were not significant ($\chi^2 = 9.354$, $P > 0.05$) indicating that there was no significant increase of awareness of substance abuse with academic year. This discovery has significant implications for curriculum development, as a single or annual sensitization is not enough and integration of substance abuse education at all academic levels is necessary, long-term and sustainable. These findings suggest that perceived susceptibility and severity of students are relatively high, while perceived barriers to lower the drinking of alcohol (social normalization, peer pressure, and accessibility of alcohol) remain as barriers to change. Structured counselling and peer-led interventions are theoretically supported

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interventions that nursing and health professionals can implement to improve self-efficacy (Alyafei et al., 2024; Younis et al., 2021). The implementation of actionable cues to action, via health campaigns and clinical support, are also theoretically grounded interventions that can be implemented by nursing and health professionals in this context.

The self-reported nature of the data obtained in this study might have led to social desirability bias and the study was conducted in a single institution, thus limiting generalizability. However, the lack of qualitative data limited more in-depth understanding of the social and psychological factors that influence substance use.

CONCLUSION

The findings of this study showed that the knowledge of substance abuse among undergraduate students at Ekiti State University was reasonably good and generally, they are aware of the side effects of substance abuse on the academic performance, physical health and mental health of the individual. However, the high prevalence of psychoactive substance use (51.0%) among the sample indicates that there is a huge knowledge-behavior gap. The finding of a statistically significant correlation between academic performance and substance abuse awareness highlights the importance of awareness programs. The lack of a meaningful relationship between knowledge and year of study underlines the importance of ongoing and systematic substance abuse education, as opposed to an isolated level of education, in all curricula. Given the unique position of a nurse and a health professional within the tertiary setting, they can play a key role in leading preventive interventions, peer education initiatives and evidence-based counselling, which tackle behavioural and systemic drivers of undergraduates' substance misuse.

Recommendations

1. University health services in collaboration with public health nurses and allied health professionals should increase and maintain the campaigns of awareness and alertness on campus about the multidimensional risks of substance abuse and its well proven effects on academic performance, physical and psychological health.
2. Substance abuse prevention content, mental health literacy and stress management skills should be formally integrated into the general studies or health education courses for all undergraduate students, thus providing everyone with exposure to material, irrespective of the department.
3. Institutional counseling units should be improved by the presence of trained nurses, clinical psychologists and social workers to offer accessible, confidential and stigma free counseling services to students facing substance use disorders or co-morbid disorders.
4. University administrations to create and enforce clear, and evidence-based policies to prevent psychoactive substance use on campus property. Crucially, these policies should also include organized rehabilitation and restorative measures, and not only punitive reactions as a condition of substance use disorder is a health problem and should be treated as such.

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5. Multi-institutional and longitudinal designs with other Universities in Nigeria should be adopted in future studies so that differences in levels of knowledge, perceptions and substance use behaviors could be made across the regions and the effect of this on knowledge, perceptions and substance use behaviors over the years of undergraduate education could be tracked. In-depth interviews and focus group discussions could be used in mixed methods approaches, to provide more contextually rich insights.

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