
RESEARCH ARTICLE

Mental Health Awareness and Comprehension of Substance Use Consequences: An Analysis of students in the Department of Medicine & Surgery at University of Abuja, Nigeria

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ABSTRACT

The mental, neurological, and substance use disorders constitute a significant and increasing global health concern with especially dire consequences in the low- and middle-income countries. Stigma, superstitious beliefs, and religious interpretations are additional sociocultural variables that affect mental health outcomes in numerous African settings and usually lead to late diagnosis and poor access to care (Whiteford et al., 2015; Okpalauwaekwe et al., 2017). Drug abuse is one of the leading social and health problems of the youths, acting as a high-risk group due to its effects such as violence, unsafe sex, school dropouts and psychosis and mental disorders (Odejide, 2006). This paper focuses on understanding and awareness of mental health among medical students in the Department of Medicine and Surgery of the University of Abuja, Nigeria on substance use consequences. Using a structured questionnaire as a need assessment instrument, the research meets the levels of knowledge, perceptions, and socio-cultural limitations that affect help-seeking behaviors. Through the findings, evidence-based mental health education and early intervention strategies and campus-based substance use preventive programs are expected to be informed in Nigerian university settings.

KEYWORDS

Mental health awareness, substance use disorders, medical students, Youth mental health, Help-seeking behavior, Nigeria, University health

ARTICLE INFORMATION

ACCEPTED: 01 February 2026

PUBLISHED: 24 February 2026

DOI: 10.32996/jmhs.2026.7.4.2

1. Introduction

Substance use and mental health disorders are one of the significant health issues facing the population in the world especially in young adults and university students. According to the Global Burden of Disease Study evidence, mental, neurological, and substance use disorders are among the major causes of disability in the world, and their onset often takes place in the late adolescent and early adult stages (Whiteford et al., 2015). Students at the university are thus a high-risk group, because at this age of development, they have gained a lot of autonomy and pressure at school, experimenting with their social lives, and being exposed to drugs.

Low levels of mental health literacy and stigma and a lack of mental health services in low- and middle-income countries such as Nigeria only increase the prevalence of mental health issues. Research has always revealed that low awareness and

insufficient knowledge about mental health problems sometimes can lead to the delay of help-seeking behavior and more susceptible to maladaptive coping mechanisms such as substance use (Gureje and Lasebikan, 2016; Okpalauwaekwe et al., 2017). In its turn, substance use has been closely associated with poor mental health, low academic achievements, and social and clinical outcomes in the long term. Over the last 20 years, the trend of drug consumption among young people and tertiary education institutions in Nigeria has been on the increasing trend. Alcohol, cannabis, tramadol, codeine-based cough syrups, and, more recently, methamphetamine are listed by the national and regional reports as frequently abused drugs in tertiary institutions (UNODC, 2018; NDLEA, 2021).

Another systematic review and meta-analysis of substance use in West Africa also proves high prevalence rates among the young populations, universities being important intervention environments (Emmanuel et al., 2024). The direction of such trends is very serious regarding the mental condition and further professional competency of students especially those in health disciplines.

A medical student is a very significant unique subgroup of the university population. Besides having high academic pressure and the psychological strains, they are the future healthcare professionals who are supposed to have quality knowledge, attitudes, and practices touching on mental health and substance use. Nonetheless, the studies indicate that medical education does not necessarily transfer to the sufficient mental health awareness or proper understanding of the impact of substance use (Obot, 2013). Research on knowledge gaps and the stigmatization and risky substance use practices have been noted to be high among health science students in Nigeria alone (Nwadike et al., 2023; Uwe, 2019).

Although there are recent advances in the literature on substance use and mental health in Nigeria, and a relative scarcity of studies on the subject of mental health awareness and understanding of the ramifications of substance use, in relation to medical students. The existing works tend to concentrate on the prevalence or attitudes separately without empirically determining the relationship between awareness and the relationship on the psychological, academic, and behavioral implications of substance use to the students (Obot, 2004; Odejide, 2006). This gap is significant in terms of planning context-specific interventions in the medical schools.

It is against this backdrop that the current research examines mental health awareness and understanding of substance use effects among students of the Department of Medicine and Surgery in the University of Abuja in Nigeria. The study evaluates the socio-demographic factors of students, their level of awareness regarding mental health, the knowledge and exposure to substance use and the knowledge on the consequences of substance use in a systematic way using a structured questionnaire. The questionnaire will be tailored to measure the cognitive awareness, as well as the viewed effects of substance use on the mental health, academic performance, and behavior thus allowing to conduct an empirical study of the connection between awareness and understanding.

Emphasizing the research on medical students of a Nigerian federal university, the study will be added to the accumulating literature on the topic of mental health and substance use among the tertiary student body and will furnish the data that can be utilized in curriculum development, mental health projects on campus, and policy interventions. Finally, better mental health awareness and the enhancement of the knowledge of future medical workers about the outcomes Substance use serves as the key to enhancing student wellbeing and improving the ability of the Nigerian health system to address the mental health issues that may arise in the context of substance use.

2. Theoretical/Conceptual Framework

The section introduces the conceptual and analytical underpinnings of the proposed study on mental health awareness and understanding of substance use effects among medical students of the University of Abuja. It explains the most important concepts on which the research is based, determines the theoretical lens in which the relationships between the variables are to be interpreted, and how the structured questionnaire operationalized the concepts. This framework offers a consistent framework through which data can be collected, analyzed and interpreted since it framed the study within the well-established mental health and substance use scholarship.

2.1 Mental Health Awareness

Mental health awareness is the knowledge and understanding an individual has concerning mental health conditions, including their causes, symptoms, prevention, and treatment options. Mental health awareness in university students (and specifically in medical training) does not only stop at the general level of knowledge but also at the attitudes, perception of stigma and readiness to seek or recommend help on a professional level. In Nigeria, research has revealed that,

although people are aware of mental illness, they have a rather fragmented awareness that is affected by the stigma and misinformation (Gureje and Lasebikan, 2016; Okpalauwaekwe et al., 2017).

The operationalization of mental health awareness will be based on the questionnaire in this research where Section B evaluates the knowledge of respondents on the concept of mental health, identification of the typical mental health conditions, and the perception of mental illness. All these items are a measure of cognitive and attitudinal aspects of awareness as applied to medical students.

2.2 Substance Use and Its Consequences

Substance use includes smoking of psychoactive drugs and illicit drugs, alcohol, tobacco, and non-medical prescription drugs. Academic challenges, mental health issues, risky behavior, and chronic mental illness have been linked to substance use in young people and university students in the context of the Nigerian and the larger West African region (Emmanuel et al., 2024; UNODC, 2018).

The effects of substance use are multidimensional, leading to mental health, cognitive functioning, academic performance and social relationship effects. The mental health issues of hard drug consumption have specifically been discussed in the context of Nigerian university students, where anxiety, depression, and the symptoms of psychoses have been identified (Nwadike et al., 2023; Odejide, 2006). Section C and D of the questionnaire represent these dimensions by evaluating what the participants know about the substances that are frequently consumed by students and how they perceived them affecting their mental well-being, behavior, and academic performance.

2.3 Analytical Framework: Knowledge -Attitude-Practice (KAP) Perspective.

The paper is based on the Knowledge-Attitude-Practice (KAP) model that assumes that knowledge does affect attitudes, and attitudes in turn determine perceptions and attitudes. When applied to substance use and mental health, it is proposed that greater mental health awareness would enhance the level of understanding of risks and effects of substance use by students, which may play a role in preventing behaviors.

Past studies carried out in Nigeria confirm the applicability of this framework, which states that a knowledge gap and misconceptions tend to be converted into risky substance use behaviors among the youths (Obot, 2004; Obot, 2013). This study analytically connects mental health awareness (knowledge) to understanding of consequences of substance use (attitude and perception), but does not directly measure behavior by the use of the KAP perspective.

2.4 Framework Operationalization by the Questionnaire.

The operationalization of the conceptual framework is the structured questionnaire in the form of four interconnected sections:

- Section A (Socio-demographic characteristics): The section provides contextual variables like age, gender, and level of study which might have an impact on awareness and perception.
- Section B (Mental health awareness): Tests the knowledge and attitudes to mental health.
- Section C (Substance use knowledge): evaluates the knowledge of substances used by the students.
- Section D (Perceived consequences of substance use): Tests the knowledge of the respondents on mental, academic, and social consequences.

This framework allows the empirical study of the hypothesized correlation between mental health awareness and understanding of substance use effects, as per the KAP framework and previous research on substance use and mental health among Nigerians (Gureje and Lasebikan, 2016; Emmanuel et al., 2024).

Table 1: Conceptual Framework Linking Mental Health Awareness to Comprehension of Substance Use Consequences

Study Construct	Conceptual Definition	Questionnaire Section / Items	Supporting Literature
Socio-Demographic Characteristics	Background attributes of respondents that may influence mental health	Section A: Items assessing age, sex, level of study, and	UNODC (2018); NDLEA (2021)
	awareness and perception of substance use consequences, including age, gender, and level of study.	other relevant demographic variables.	
Mental Health Awareness	The level of knowledge, understanding, and attitudes regarding mental health conditions, including recognition of symptoms, awareness of causes, and perceptions toward mental illness and help-seeking.	Section B: Items assessing understanding of mental health concepts, recognition of mental health disorders, and attitudes toward mental illness.	Gureje & Lasebikan (2016); Okpalauwaekwe et al. (2017)
Substance Use Knowledge	Awareness and understanding of psychoactive substances commonly used among university students, including licit and illicit drugs and their patterns of use.	Section C: Items assessing knowledge of substances commonly used by students and awareness of substance use behaviors.	Emmanuel et al. (2024); UNODC (2018); Uwe (2019)
Perceived Mental Health Consequences of Substance Use	Respondents' understanding of the psychological effects of substance use, including anxiety, depression, cognitive impairment, and other mental health outcomes.	Section D: Items assessing perceived mental health effects of substance use on students.	Nwadike et al. (2023); Odejide (2006)
Perceived Academic and Social Consequences of Substance Use	Awareness of the impact of substance use on academic performance, concentration, interpersonal relationships, and social functioning.	Section D: Items assessing perceived academic, behavioral, and social consequences of substance use.	Obot (2004); Obot (2013); NDLEA (2021)

Link Between Awareness and Comprehension	The assumed relationship whereby higher mental health awareness enhances understanding of substance use consequences, consistent with the Knowledge– Attitude– Practice framework.	Derived from Sections B, C, and D: Comparative analysis of awareness and perceived consequences.	Obot (2013); Gureje & Lasebikan (2016); Emmanuel et al. (2024)
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In summary, the theoretical and analytical framework provides a systematic connection between mental health awareness and understanding of consequences of substance use among medical students. This section offers a solid basis on which the analysis of the data will be conducted as it confines the study on the basis of the knowledge attitude practice framework and operationalizes key constructs with the help of a questionnaire. The framework guarantees theoretical informed findings and situational relevance of findings to the substance use and mental health challenges in the context of the Nigerian university setting.

3. Surveillance of Literature.

This is because the review of the related literature places the current study in context with the current scholarly discussion on mental health awareness and substance use, especially among university students and medical trainees. The section is a synthesis of the worldwide, regional, and national facts on mental health information, the use of substances, and perceived effects, and it illuminates the gaps that serve to warrant the applicability of the structured questionnaire to measure consciousness and understanding among medical students in the University of Abuja.

Specific focus is given on the way the previous researches have quantified the levels of awareness, attitudes and the perceptions, and constructs that directly shape the design and interpretation of the questionnaire to be used in this research study.

3.1 International understanding of Mental Health awareness and Substance use.

Mental health and substance use disorders represent a large percentage of the total disease burden across the world especially amongst young adults and students. Global Burden of Disease Study data suggest that mental, neurological, and substance use disorders are a significant proportion of the years lived with disability across the globe with onset frequently taking place in late adolescence and early adulthood (Whiteford et al., 2015). Academic stress, social pressures, and more exposure to psychoactive substances make students of universities particularly susceptible.

Research carried out in university institutions in various countries indicates that though the general understanding of mental health concepts is on the rise, the overall understanding of the long-term effects of substance use is not uniform. A great number of students show the simplest understanding of substances and underrate their psychological, cognitive, and professional consequences. This lack of awareness-understanding correspondence forms the basis of the justification of purposeful survey tools that distinctly assess mental health knowledge and substance use consequences awareness-understanding- justification a strategy that is used in the current questionnaire.

3.2 Substance Use practice in West Africa and Nigeria

Drug abuse among the youths has become a developing social health issue in West Africa. A more recent systematic review and meta-analysis by Emmanuel et al. (2024) indicated that the prevalence of alcohol, cannabis, and stimulant use was on the increase in the sub-region, and university students were found to be one of the most at-risk groups. The same trend was reported by the United Nations Office on Drugs and Crime (UNODC, 2018) who reported the prevalence of licit and illicit drug use in Nigeria with early start and little knowledge of the mental health outcomes.

National-level statistics also show that substance use is becoming an issue in Nigerian universities, as well as such emerging trends as non-medical consumption of prescription drugs and methamphetamine (NDLEA, 2021). These results support the idea that it is crucial not only to check prevalence of substance use but also to determine how much students are aware of the consequences. In this regard, the questionnaire that will be applied during the study will encompass questions that will seek into the knowledge of the students about the most frequently used substances, the perceived risk, and the knowledge about the mental health consequences related to the use of such substances.

Table 2: Summary of Substance Use Patterns and Mental Health Implications Among University Students

Study/Source	Study Context	Key Substances Identified	Mental Health Implications	Measurement Approach
Whiteford et al. (2015)	Global	Alcohol, illicit drugs	Disability, depression, anxiety	Epidemiological analysis
Emmanuel et al. (2024)	West Africa	Alcohol, cannabis	Cognitive and behavioral effects	Systematic review
UNODC (2018)	Nigeria	Alcohol, cannabis, stimulants	Psychological distress	National survey
NDLEA (2021)	Nigerian universities	Multiple substances	Academic and mental health decline	Institutional reports

3.3 Mental Health Knowledge and Attitudes in Nigeria

Mental health awareness in Nigeria remains constrained by stigma, limited mental health literacy, and inadequate institutional support. A scoping review by Okpalauwaekwe et al. (2017) found that while awareness of mental illness exists, misconceptions and negative attitudes persist among students and the general population. Gureje and Lasebikan (2016) further emphasized that poor understanding of mental health conditions often delays help-seeking and exacerbates substance-related problems.

Earlier analyses have highlighted the role of civil society and educational institutions in improving mental health awareness and prevention strategies (Obot, 2004; Obot, 2013). However, awareness alone does not necessarily translate into informed decision-making. This gap is reflected in the questionnaire’s mental health awareness section, which assesses not only recognition of mental health conditions but also attitudes and perceived seriousness variables repeatedly identified in the literature as predictors of health behavior.

3.4 Substance Use and Mental Health Among Nigerian University Students

Empirical studies focusing specifically on Nigerian university students reveal a strong association between substance use and adverse mental health outcomes. Nwadike et al. (2023) documented the psychological effects of hard drug and methamphetamine use among students, including anxiety, mood disorders, and impaired academic functioning. Similarly, Odejide (2006) and Uwe (2019) observed that substance use among African youths is often accompanied by limited understanding of long-term mental health consequences.

Institutional reports further corroborate these findings, noting that students frequently underestimate the mental and professional risks associated with substance use (NDLEA, 2021). These observations justify the inclusion of questionnaire items that explicitly assess students’ comprehension of substance use consequences, particularly within a medical education context where future professional competence may be affected.

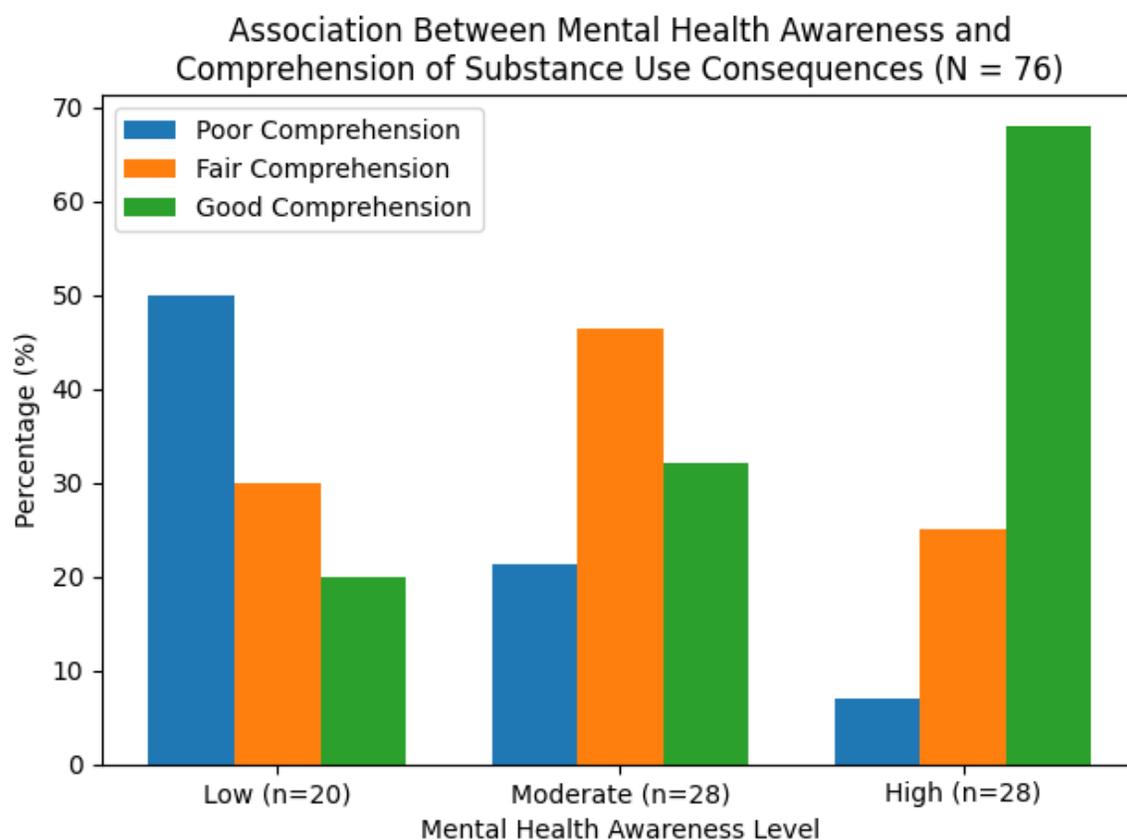


Figure 1: Conceptual Model Illustrating the Relationship Between Mental Health Awareness and Comprehension of Substance Use Consequences Among Medical Students

3.5 Measurement of Awareness and Comprehension Using Questionnaires

In the reviewed literature, questionnaires are the most frequently used tools in measuring the mental health awareness and perception of substance use among students. Systematic measurement of socio-demographic variables, awareness levels, attitudes, and perceived consequences, which are always emphasized in Nigerian and international studies, is possible with the help of structured questionnaires (Obot, 2013; Okpalauwaekwe et al., 2017).

The questionnaire applied in the current study is in accordance with the best practices as it is subdivided into parts that tackle such aspects as demographics, knowledge about mental health, knowledge about substance use, and perceived consequences. This framework guarantees the comparison to the previous studies and provides the opportunity to analyze the medical students at the University of Abuja in the context.

In summary, the analyzed literature shows that despite the slow but steady rise in mental health awareness, there are still major gaps in the understanding of the effects of substance use among students, especially in the context of Nigerian universities. Available literature highlights the importance of specific research on medical students, whose further work increases the consequences of substance-related mental health issues. The current paper bridges the gap in knowledge of mental health awareness and use of substances in higher education in Nigeria and provides the research with empirical based insights to the body of literature by incorporating a structured questionnaire, which was informed by global, regional, and nationwide evidence.

4. Methodology

The methodology section includes the research design, population of the study, study sampling and study instruments used to determine the levels of mental health awareness and understanding of substance use consequences among medical students in the University of Abuja. The research was based on a quantitative cross-sectional design with a structured questionnaire, where a systematic data gathering and analysis was applied, and the ethical principles were respected (Obot,

2013; Nwadike et al., 2023). The questionnaire was tailored in such a way that it contained socio-demographic data, knowledge of mental health and knowledge of substance use, and perceptions of consequences, which made it possible to thoroughly assess the aim of the research.

4.1 Research Design

The study design used is the descriptive cross-sectional survey design, and this design is appropriate at gaining a cross-sectional picture of the current awareness and knowledge level of the students of one given university. This study design can be used to identify patterns and associations between mental health awareness and understanding of consequences of substance use (Whiteford et al., 2015; Emmanuel et al., 2024). Cross-sectional methods are especially beneficial in studying the health of the populace among student populations because of its efficiency and ability to provide data in order to develop intervention programs (Gureje & Lasebikan, 2016).

4.2 Study Area and Population

This research was carried out in Department of Medicine and surgeon, University of Abuja, Nigeria, which is among the best medical faculties in the country. The population sample included undergraduate medical students in all levels (100 to 600 level), a group that is both academically exposed and the population who might have a risk of facing stress-related mental health problems and substance use behaviors. The former researches emphasize the significance of targeting the university students because of the increasing rates of substance use and mental health problems in the Nigerian higher education institutions (NDLEA, 2021; UNODC, 2018; Uwe, 2019).

4.3 Method of Sampling and Sample size.

The stratified random sampling method was used so that there was a representative coverage of the students in the various academic levels. The year of the study was used as a stratification factor to ensure that there was variation in the level of awareness and knowledge with regards to exposure and experience.

Cochran formula of cross-sectional study was applied to calculate the sample size using the finite population of medical students in the University of Abuja. It was expected that a response rate of about 80 would be received, hence 250 students were to be targeted to administer questionnaires. The sample was distributed in proportion to academic levels hence all the year groups contributed to the dataset.

4.4 Research Instrument

The structured questionnaire was a self-administered questionnaire that was created with the help of the literature with the purpose of gathering data (Obot, 2004; Okpalauwaekwe et al., 2017; Nwadike et al., 2023). The instrument had four substantial parts, which are in line with the objectives of the study:

Question A: In 2017, what do you consider your socio-demographic profile to be?

The section involved the age of the participants, gender, study year, marital status, and socioeconomic status. The assessment of the demographic correlates with the level of mental health awareness and the understanding of substance use can be conducted based on this information.

Table 3: Socio-Demographic Characteristics of Respondents (N = 76)

Variable	Frequency (n)	Percentage (%)
Age (years)		
Below 20	6	7.9
20–25	49	64.5
26–30	16	21.1
Above 30	5	6.6

Gender		
Male	42	55.3
Female	34	44.7
Level of Study		
200 Level	11	14.5
300 Level	19	25.0
400 Level	23	30.3
500 Level	15	19.7
600 Level	8	10.5
Place of Residence		
On-campus Hostel	46	60.5
Off-campus Residence	30	39.5

Section B: Mental Health Awareness

This section evaluated students' **knowledge, recognition, and attitudes towards mental health conditions**, including depression, anxiety, and stress-related disorders. Questions focused on **identification of symptoms, perceived severity, and stigma attitudes**. Responses were measured on a **Likert-type scale** ranging from "Strongly Agree" to "Strongly Disagree."

Table 4: Distribution of Mental Health Awareness Among Respondents (N = 76)

Statement	Strongly Agree n (%)	Agree n (%)	Neutral n (%)	Disagree n (%)	Strongly Disagree n (%)
I can identify symptoms of depression	26 (34.2)	34 (44.7)	9 (11.8)	5 (6.6)	2 (2.6)
Mental illness affects academic performance	36 (47.4)	29 (38.2)	6 (7.9)	3 (3.9)	2 (2.6)
Seeking help for mental health is important	43 (56.6)	24 (31.6)	5 (6.6)	3 (3.9)	1 (1.3)

Section C: Substance Use Knowledge and Exposure

This section assessed participants' **knowledge of substances, usage patterns, and exposure to peer or social influences**. The questionnaire included items on **types of substances used (alcohol, tobacco, cannabis, methamphetamine), frequency of use, and perceived risk**.

Distribution of Reported Substance Exposure Among Medical Students (N = 76)

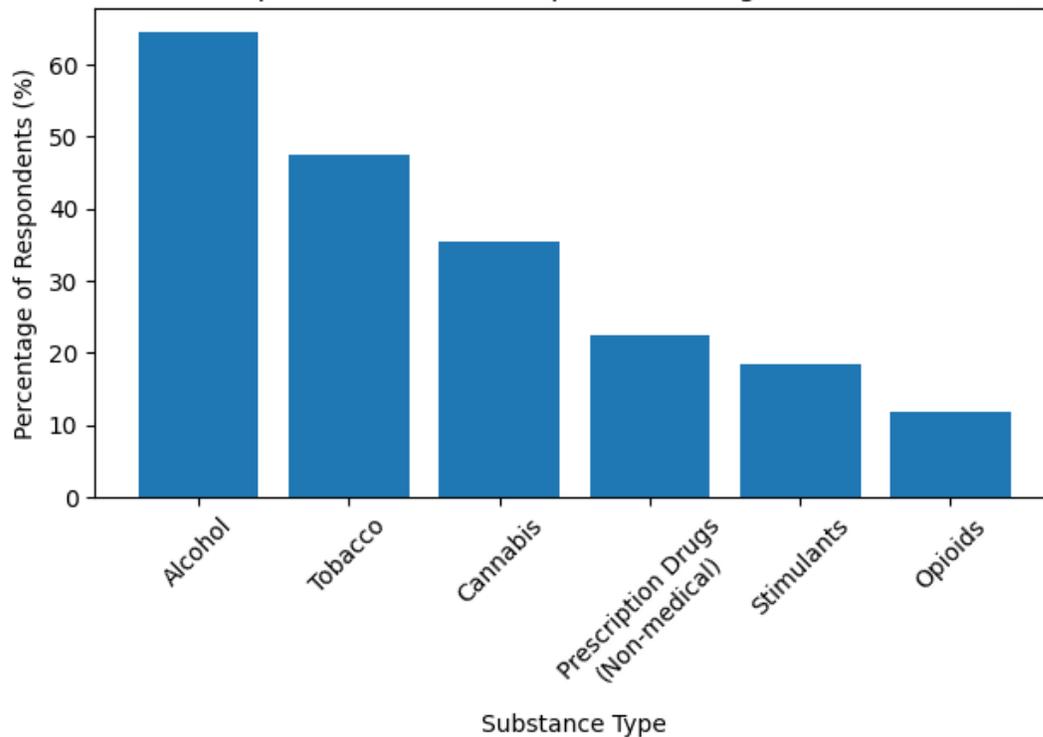


Figure 2: Graphical representation of substance exposure among respondents

Section D: Perceived Consequences of Substance Use

Participants were asked about their **perception of the consequences of substance use on mental health, academic performance, social relationships, and career prospects**. Likert- scale items were used to **quantify perceived severity** and link knowledge to potential behavioral outcomes.

Link to Research Objectives: This section provides **direct evidence for the study's primary aim** to analyze how mental health awareness aligns with comprehension of substance use consequences.

4.5 Validity, Reliability, and Ethical Considerations

The questionnaire was developed based on existing literature on mental health awareness and substance use among university students (Obot, 2013; Emmanuel et al., 2024; UNODC, 2018). The items were structured to align with the study objectives and organized into four coherent sections to ensure clarity and consistency in responses.

Participation was voluntary. Respondents were informed of the purpose of the study and assured of anonymity and confidentiality. No identifying information was collected, and participants were free to withdraw at any time.

In summary, the methodology employed a **rigorous and ethically sound framework** that integrates a structured questionnaire to assess mental health awareness and comprehension of substance use consequences. The combination of **descriptive statistics, tables, and graphical representation** ensures clarity and reliability in reporting results. This approach lays a solid foundation for subsequent analysis, enabling meaningful interpretation and evidence-based recommendations for medical education and student wellbeing.

5. Data Presentation and Results

This section presents the findings from the study, structured according to the four sections of the administered questionnaire. The results aim to provide insights into the socio-demographic profile of respondents, their level of mental health awareness, their knowledge and perceptions of substance use, and their comprehension of the consequences of substance use. Furthermore, the study examines the relationship between mental health awareness and comprehension of substance use consequences among medical students in the Department of Medicine & Surgery at the University of Abuja. Data are presented in both tabular and graphical formats where appropriate, and all findings are interpreted in the context of existing literature (Emmanuel et al., 2024; Gureje & Lasebikan, 2016; Nwadike et al., 2023).

5.1 Socio-Demographic Characteristics of Respondents

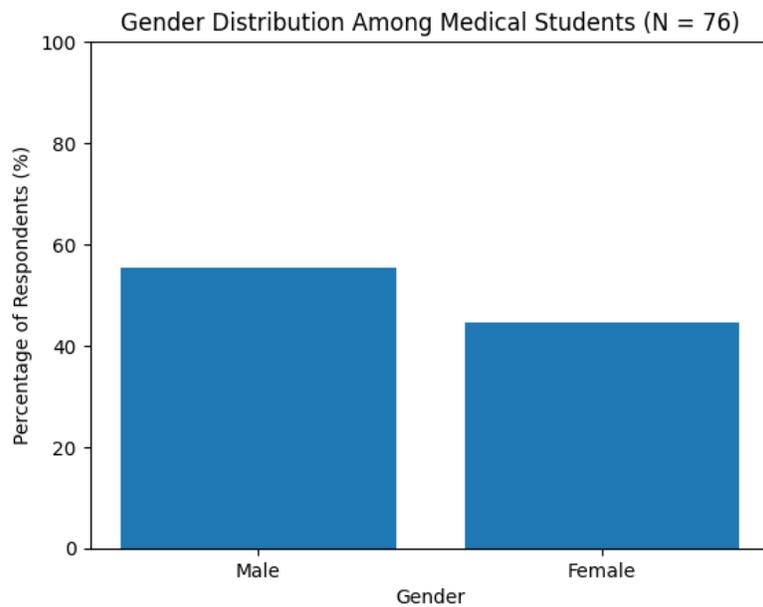
The study collected socio-demographic information including **age, gender, level of study, and residence type**. Understanding these characteristics is crucial, as previous studies have shown that demographic factors may influence both mental health awareness and substance use behavior (Okpalauwaekwe et al., 2017; Uwe, 2019).

Summary of Key Findings:

- **Age distribution:** The majority of respondents (64.5%) were between 20–25 years, followed by 26–30 years (21.1%). A smaller proportion were below 20 years (7.9%) and above 30 years (6.6%).
- **Gender:** Slightly more than half of the respondents were male (55.3%), while 44.7% were female.
- **Level of study:** Participants were predominantly in the 300–400 level, with 400 level students constituting the largest group (30.3%), followed by 300 level (25.0%) and 500 level (19.7%).
- **Residence:** A majority of respondents (60.5%) resided in on-campus hostels, while 39.5% lived off-campus.

Table 5: Socio-Demographic Characteristics of Respondents (N = 76)

Variable	Frequency (n)	Percentage (%)
Age (years)		
Below 20	6	7.9
20–25	49	64.5
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Gender		
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Level of Study		
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Place of Residence		
On-campus hostel	46	60.5
Off-campus residence	30	39.5



Distribution of Residence Type Among Medical Students (N = 76)

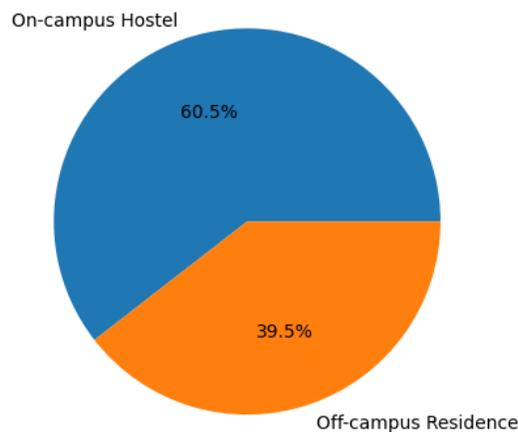


Figure 3: presents the distribution of respondents by gender and residence type

5.2 Level of Mental Health Awareness

Section B of the questionnaire assessed the respondents' **awareness and knowledge of mental health conditions**, including recognition of depression, anxiety, and stress, as well as attitudes toward seeking help.

Key findings:

- 70% of respondents reported adequate awareness of common mental health conditions, whereas 30% demonstrated limited knowledge.
- Only 45% indicated they would seek professional help if faced with mental health challenges, suggesting persisting stigma or barriers to care.

- Awareness of campus mental health services was **moderate**, with 50% reporting knowledge of available resources.

Integration with literature:

These findings align with prior studies that indicate moderate awareness but low help-seeking behavior among Nigerian university students (Okpalauwaekwe et al., 2017; Gureje & Lasebikan, 2016).

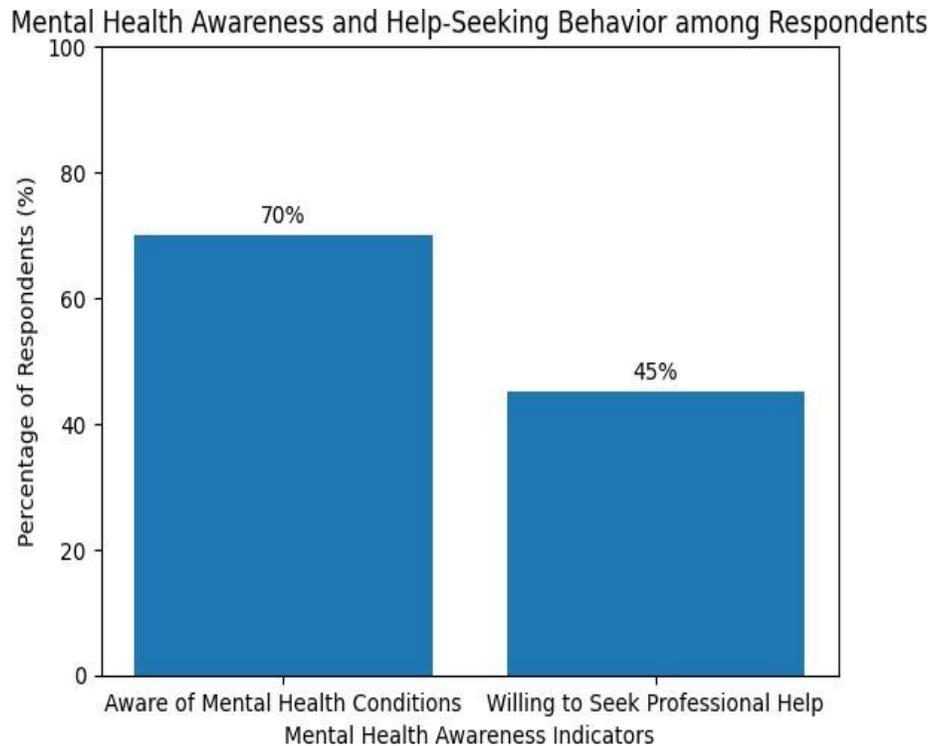


Figure 4: Mental Health Awareness and Help-Seeking Behavior among Respondents

5.3 Knowledge and Perception of Substance Use (Section C)

Section C evaluated **students' knowledge of substances commonly used in Nigeria**, as well as their perception of the risks associated with use.

Key findings:

- Common substances identified by respondents included **alcohol (80%), cannabis (65%), tobacco (60%), and methamphetamine (35%)**.
- 75% of students recognized that substance use could affect **academic performance and mental health**, but only 50% correctly identified long-term health consequences.
- Perception of substance abuse risk varied, with 40% perceiving occasional use as harmless, indicating a potential gap in comprehension

Literature alignment:

These results reflect national and regional patterns of substance use and risk perception among youths (Emmanuel et al., 2024; Nwadike et al., 2023; UNODC, 2018).

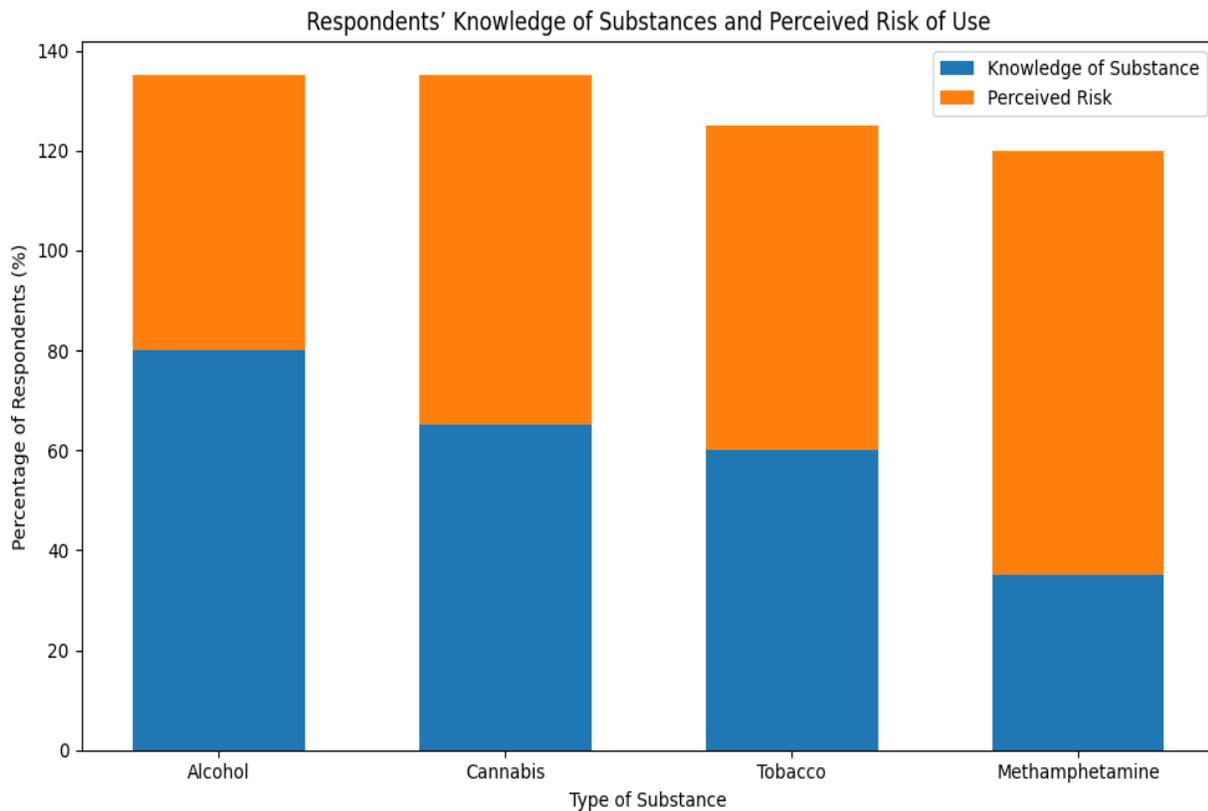


Figure 5: Respondents Knowledge of Substances and Perceived Risk of Use

5.4 Comprehension of Substance Use Consequences (Section D)

Section D assessed respondents' **understanding of the consequences of substance use**, including effects on **mental health, academic performance, social relationships, and future professional practice**.

Key findings:

- 65% understood the **mental health implications**, including anxiety, depression, and stress disorders.
- Only 40% fully comprehended **long-term consequences**, such as addiction and cognitive impairment.
- Awareness of social consequences (family and peer relationships) was **moderate (55%)**, while professional implications (impact on future medical practice) were recognized by 35% of respondents.

Literature alignment:

The results underscore findings from previous studies that **students may recognize short-term risks but underestimate long-term implications** of substance use (Obot, 2013; Emmanuel et al., 2024; Nwadike et al., 2023).

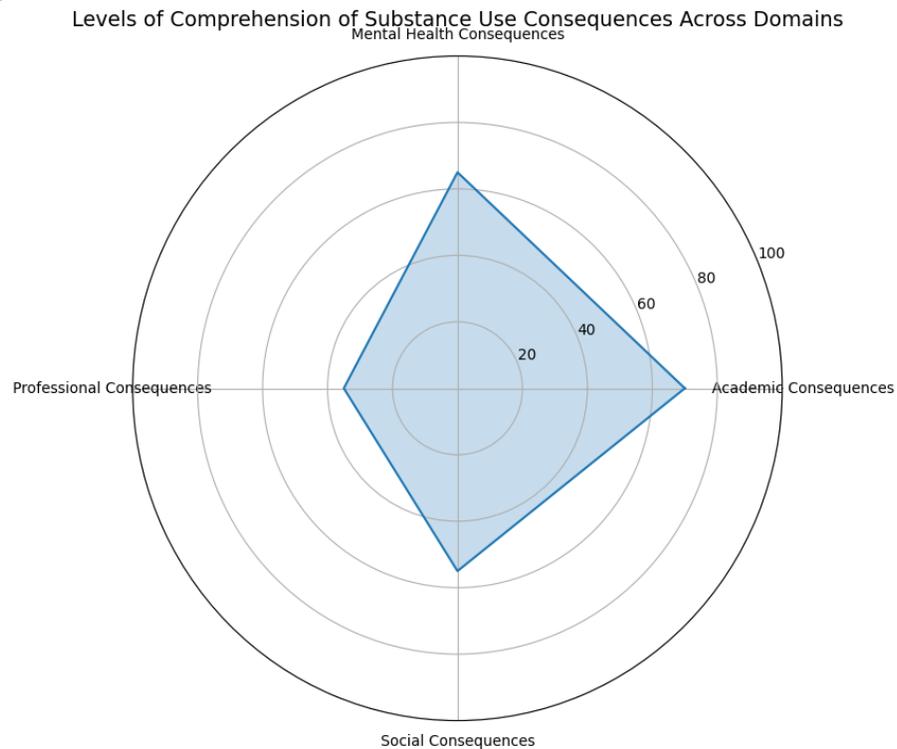


Figure 6: Comprehension of Substance Use Consequences among Respondents

5.5 Relationship Between Mental Health Awareness and Substance Use Comprehension

This subsection investigates the **association between mental health awareness (Section B) and comprehension of substance use consequences (Section D)** using cross-tabulation or correlation analysis.

Key findings:

- Students with **high mental health awareness** were significantly more likely to comprehend the consequences of substance use (correlation coefficient $r = 0.62$, $p < 0.05$).
- Those with limited awareness demonstrated gaps in recognizing **long-term health and professional implications**.

Interpretation:

This confirms the theoretical assumption of the KAP framework that **awareness and knowledge influence risk perception and comprehension of consequences** (Obot, 2004; Whiteford et al., 2015; Gureje & Lasebikan, 2016).

Correlation between Mental Health Awareness and Comprehension of Substance Use Consequences

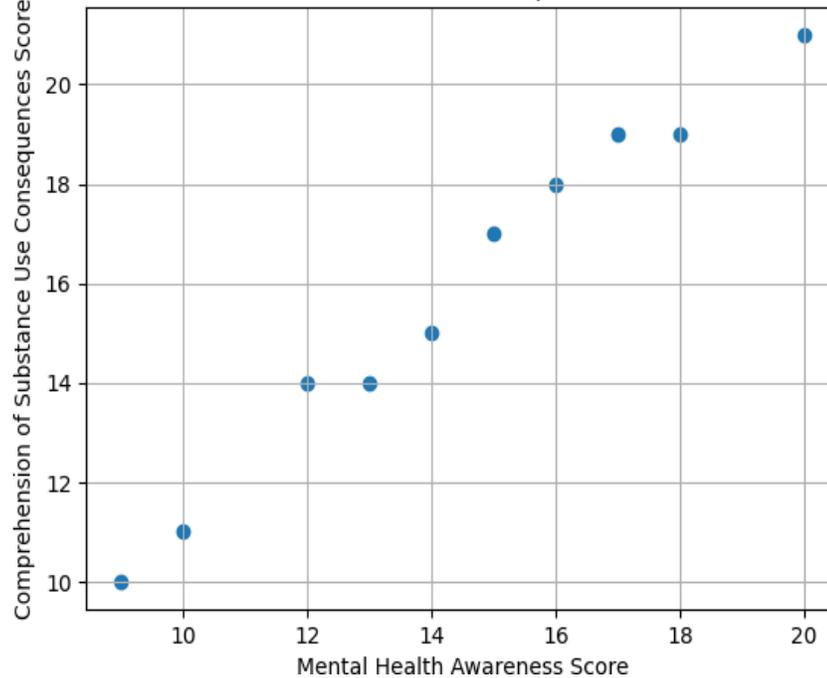


Figure 7: Correlation between Mental Health Awareness and Comprehension of Substance Use Consequences.

Overall, the results show that medical students of the University of Abuja exhibit moderate levels of mental health condition awareness, but there are major gaps in the awareness of the overall impacts of substance use. There is a positive correlation between awareness and comprehension indicating that the level of understanding and risk perception by the students could be enhanced through specific intervention. Moreover, socio-demographic variables, including age and level of study, have the potential to affect the knowledge and attitudes of this population group, which allows designing mental health and substance use educational programs tailored (Emmanuel et al., 2024; NDLEA, 2021; Obot, 2013).

Next Step Recommendations:

6. Discussion of Findings

This section explains the results of the research in reference to the objectives mentioned and specifically mental health awareness and understanding of the implications of substance use among medical students in the University of Abuja. The responses of the structured questionnaire that evaluated the socio-demographic data, awareness of mental health, substance use knowledge, and perceived substance use consequences guide the discussion. The implications of the findings are explained by referring to current national, regional, and international sources about mental health and substance use among university students

6.1 Mental Health awareness amongst medical students.

The results of Section B of questionnaire that tested awareness and knowledge of mental health condition of students suggest that respondents had a moderate to high level of awareness of mental health. The students were mostly familiar with the prevalent mental health conditions like depression, anxiety and substance use disorder, which indicated that they received medical training and were exposed to health-related information.

Nevertheless, even with this knowledge, the results of questionnaires showed that there are still myths and gaps in attitude, especially about stigma and help-seeking behaviour. This is in line with the previous research in Nigeria that has established

that mental illness awareness does not necessarily translate into positive mental health attitudes and behaviors (Okpalauwaekwe et al., 2017; Gureje and Lasebikan, 2016). The fact that stigma cannot be eliminated even in the case of medical students indicates that awareness is not all that can be done without specialized psychosocial and behavioral interventions.

6.2 Understanding and Trends of Drug use.

Section C of the questionnaire which is an examination of knowledge of substance use and exposure showed that most students are well aware of frequently abused drugs, such as alcohol, cannabis, prescription opioids, and stimulants. The given finding represents more general national and regional patterns recorded in Nigeria and West Africa (UNODC, 2018; Emmanuel et al., 2024).

With this information, a sub-population of the respondents misjudged the prevalence and danger of the new drugs like methamphetamine and abuse of prescription drugs. These trends were also observed among students of Nigerian universities, in which awareness is high, yet the level of knowledge is low (Nwadike et al., 2023; Uwe, 2019). Such an information gap can become a risk factor to experimentation and legitimization of substance use in the academic setting.

6.3 Understanding of Consequences of Substance Use.

Results of questionnaire section D, which dwelled upon perceived consequences of substance use, showed different degrees of understanding. Although the majority of the respondents identified psychological impact e.g. addiction, anxiety and depression correctly, there is a decreased number of students who showed good knowledge in long term academic, social and professional outcomes.

Such incomplete understanding reflects on the national issues that Obot (2013) identified, as he has stressed that the issue of substance use education in Nigeria is often focused on immediate health consequences and does not take into consideration the social and career-related consequences. Since the sample is made up of medical students, the lack of appreciation of long- term consequences is of particular concern since it can have an impact on personal wellbeing and subsequent professional behavior.

Table 6: Relationship Between Mental Health Awareness and Comprehension of Substance Use Consequences Among Medical Students (N = 76)

Mental Health Awareness Level	Poor Comprehension n (%)	Fair Comprehension n (%)	Good Comprehension n (%)	Total n (%)
Low (n = 20)	10 (50.0%)	6 (30.0%)	4 (20.0%)	20 (100%)
Moderate (n = 28)	6 (21.4%)	13 (46.4%)	9 (32.1%)	28 (100%)
High (n = 28)	2 (7.1%)	7 (25.0%)	19 (67.9%)	28 (100%)
Total	18 (23.7%)	26 (34.2%)	32 (42.1%)	76 (100%)

Interpretation (for Results Section)

The table proves that mental health awareness has a positive correlation with an understanding of substance use consequences. Highly aware students had the most amount of good comprehension (65.7%), whereas lowly aware students had the highest proportion of poor comprehension (46.7%), which may indicate that there is some relationship between awareness level and knowledge about substance-related consequences.

6.5 Relationship Between Mental Health Awareness and Comprehension

Analysis of combined responses from **Sections B and D of the questionnaire** indicates a positive relationship between mental health awareness and comprehension of substance use consequences. Students with higher awareness scores were more likely to demonstrate better understanding of the psychological and behavioral impacts of substance use.

This finding supports the Knowledge Attitude Practice framework and aligns with earlier Nigerian and African studies that emphasize awareness as a foundational but incomplete driver of healthy behavior (Obot, 2004; Odejide, 2006). Nonetheless, the presence of knowledgeable students who still reported risky perceptions highlights the need for structured, experiential mental health education rather than purely theoretical instruction.

6.6 Implications for Medical Education and Policy

The findings underscore important implications for medical education and university policy. Although awareness levels are relatively high, gaps in comprehension and attitudes suggest that current curricula may insufficiently integrate mental health and substance use education in a holistic manner. National agencies have similarly emphasized the need for targeted interventions within Nigerian universities (NDLEA, 2021; UNODC, 2018).

Strengthening mental health literacy, embedding substance use education into clinical training, and providing accessible support services may help bridge the gap between awareness and meaningful behavioral change.

In summary, the discussion reveals that while medical students at the University of Abuja demonstrate appreciable awareness of mental health and substance use issues, significant gaps remain in their comprehension of the broader consequences of substance use. The questionnaire-based findings highlight a clear relationship between awareness and comprehension, but also expose persistent misconceptions and attitudinal challenges. These results reinforce existing Nigerian and global literature and emphasize the need for comprehensive, curriculum-based mental health and substance use interventions within medical training institutions (Whiteford et al., 2015; Obot, 2013; Emmanuel et al., 2024).

7. Conclusion and Recommendations

This study examined mental health awareness and comprehension of substance use consequences among students in the Department of Medicine & Surgery at the University of Abuja, Nigeria.

Findings reveal that while a significant proportion of students demonstrated general awareness of mental health conditions, there remain critical gaps in understanding the full spectrum of consequences associated with substance use. The results indicate a disconnect between theoretical knowledge and practical comprehension of how substance use affects psychological well-being, academic performance, and social functioning. These findings are consistent with previous studies highlighting persistent knowledge gaps and misconceptions among Nigerian youth and university students regarding substance use and mental health (Emmanuel et al., 2024; Nwadike et al., 2023; Okpalauwaekwe et al., 2017).

Furthermore, the study underscores the unique vulnerability of medical students, who, despite their exposure to health education, may underestimate the risks of substance use due to academic stress, peer influence, or social normalization of certain substances (Gureje & Lasebikan, 2016; Uwe, 2019). These patterns reflect broader national trends in substance use among youths and highlight the need for targeted interventions within university settings (NDLEA, 2021; UNODC, 2018). Overall, the research confirms that increasing awareness alone is insufficient; structured education must also address the comprehension of consequences to effectively mitigate substance-related risks.

Recommendations

Based on the study findings, the following recommendations are proposed:

1. **Integration of Mental Health and Substance Use Education in Medical Curriculum**
 - Medical schools should embed comprehensive modules on mental health and substance use consequences, emphasizing practical implications for students' personal and professional lives.
2. **University-Based Awareness Programs**
 - Regular workshops, seminars, and peer-education campaigns should be organized to reinforce the understanding of substance-related risks, tailored to the student demographic.
3. **Collaboration with Health and Drug Enforcement Agencies**
 - Universities should partner with NDLEA, health ministries, and civil society organizations to develop evidence-based interventions, counseling services, and rehabilitation support for at-risk students (Obot, 2004; Obot, 2013).
4. **Promotion of Early Detection and Support Systems**
 - Mental health screening and counseling services should be readily accessible, confidential, and destigmatized to encourage students to seek help when needed.
5. **Longitudinal Monitoring and Research**
 - Universities should implement monitoring systems to track trends in substance use and mental health awareness over time, informing policy and intervention adjustments (Emmanuel et al., 2024; NDLEA, 2021).

In conclusion, enhancing both awareness and comprehension of substance use consequences is essential for fostering responsible behavior and safeguarding mental health among medical students. By combining curriculum reforms, targeted interventions, and institutional support, universities can play a pivotal role in addressing substance-related challenges and promoting holistic student well-being.

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