EVALUATING THE ACCESSIBILITY AND UTILIZATION OF MENTAL HEALTH SERVICES AMONG MEDICAL STUDENTS IN UNIVERSITY OF BENIN

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UNIVERSITY OF BENIN,

EDO STATE.

APRIL, 2026

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BEING A ONE YEAR PROJECT PRESENTED TO THE DEPARTMENT OF PUBLIC HEALTH AND COMMUNITY MEDICINE, SCHOOL OF MEDICINE, COLLEGE OF MEDICAL SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBBS) DEGREE IN THE UNIVERSITY OF BENIN, BENIN CITY, EDO STATE, NIGERIA.

APRIL, 2026

DECLARATION

I hereby declare that this project work is original and will be carried out by the under-listed students under the supervision of **Prof Obehi Okojie** and **Dr. Ndubuisi Mokogwu** and has not been published elsewhere for the award of a degree or certificate.

_____

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CERTIFICATION

This is to certify that this research work titled **"Evaluating the Accessibility and Utilization of Mental Health Services Among Medical Students in University of Benin"** will be carried out in the Department of Public Health and Community Medicine, School of Medicine, College of Medical Sciences, University of Benin, Benin City, Edo State, Nigeria, as part of the requirements for the award of Bachelor of Medicine, Bachelor of Surgery (MB;BS) degree by **OGONNA STEPHEN OPARA** with matriculation number **MED1807478**.

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DEDICATION

I dedicate this work to God Almighty, who has brought me this far in my pursuit of becoming a medical doctor. This project is also dedicated to my family, who have been my pillar over the years and have contributed immensely to my project. I also dedicate this to my colleagues, friends, and well-wishers.

ACKNOWLEDGEMENTS

First and foremost, I offer my deepest and most sincere gratitude to my Lord and Creator, Jesus Christ. Your grace has been my anchor, and Your wisdom has been my light throughout this academic journey. Thank You for providing the strength to persevere when the road was difficult and for the constant reminders that through You, all things are possible.

I am profoundly grateful to the Department of Public Health and Community Medicine, University of Benin. To my lecturers and the entire staff, thank you for providing a stimulating academic environment and for the high standards of excellence that have shaped my professional growth. To my supervisors, Prof. O. Okojie, and Dr. N. Mokogwu, I cannot thank you enough for your invaluable guidance, patience, and mentorship. Your insightful critiques and encouragement were instrumental in refining this work and pushed me to become a better researcher.

To my parents, Mr and Mrs Opara, thank you for being my primary support system. Your unconditional love, endless prayers, and sacrifices provided the foundation upon which I stand today. This achievement is as much yours as it is mine.

TABLE OF CONTENTS

Contents

DECLARATION iii

CERTIFICATION iv

DEDICATION vi

ACKNOWLEDGEMENTS viii

LIST OF ABBREVIATIONS xiv

DEFINITION OF TERMS xv

ABSTRACT xvi

CHAPTER ONE 1

INTRODUCTION 1

BACKGROUND 1

1.2. STATEMENT OF THE PROBLEM 2

1.3. JUSTIFICATION OF THE STUDY 3

1.4. RESEARCH QUESTIONS 5

1.5. OBJECTIVES 5

GENERAL OBJECTIVE 5

SPECIFIC OBJECTIVES 6

CHAPTER TWO 7

LITERATURE REVIEW 7

2.1. THE AWARENESS LEVEL OF AVAILABLE MENTAL HEALTH SERVICES AMONG MEDICAL STUDENTS. 7

2.2. ACCESSIBILITY OF MENTAL HEALTH SERVICES FOR MEDICAL STUDENTS. . 9

2.3. UTILIZATION PATTERNS OF MENTAL HEALTH SERVICES BY MEDICAL STUDENTS. 11

2.4. KEY BARRIERS PREVENTING MEDICAL STUDENTS FROM SEEKING MENTAL HEALTH SUPPORT. 15
CHAPTER THREE 20
METHODOLOGY 20
3.1 STUDY AREA 20
3.2 STUDY DESIGN 21
3.3 Study Duration 21
3.4 STUDY POPULATION 22
3.5 SELECTION CRITERIA 22
3.5.1 Inclusion Criteria 22
3.5.2 Exclusion Criteria 22
3.6 SAMPLE SIZE DETERMINATION 22
3.7 SAMPLING TECHNIQUE 24
Step 1: Define Strata 24
Step 2: Proportionate Allocation 24
Step 3: Selection of Participants 25
3.8 Data Management ..... 25~~26~~
3.8.1 Method of Data Collection ..... 25~~26~~
3.8.2 TOOLS FOR DATA COLLECTION 26
3.8.3 RESEARCH ASSISTANT ..... 28~~29~~
3.8.4. PRETESTING ..... 28~~29~~
3.8.5 Data Analysis ..... 28~~29~~
Scoring system 29
(ii) Statistical Analysis 30
3.8.6 Data Presentation ..... **Error! Bookmark not defined.**~~31~~

3.9 ETHICAL CONSIDERATION 3233
3.10 LIMITATION OF STUDY 3233
CHAPTER FOUR 3435
RESULTS 3435
SECTION A 3435
SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS 3435
SECTION C 4445
ACCESSIBILITY OF MENTAL HEALTH SERVICES 4445
SECTION D 5051
UTILIZATION OF MENTAL HEALTH SERVICES 5051
SECTION E 5657
BARRIERS TO SEEKING MENTAL HEALTH CARE 5657
CHAPTER FIVE 5960
DISCUSSION 5960
CONCLUSION 7071
RECOMMENDATIONS 7172
REFERENCES 7576
APPENDIX I 7879
INFORMED CONSENT FORM 7879
APPENDIX II 8182

LIST OF TABLES

Table No.	Title	Page
Table 1	Socio-Demographic Characteristics of respondents	35
Table 2	Awareness of Mental Health Services among respondents	37
Table 3	Sociodemographic factors and Awareness of Mental Health Services among Respondents	39
Table 4	Predictors of Awareness of Mental Health Services among respondents	41
Table 5	Accessibility of Mental Health Services among respondents	45
Table 6	Sociodemographic characteristics and Accessibility of Mental Health Services among respondents	47
Table 7	Predictors of Accessibility of Mental health services among respondents	49
Table 8	Utilisation of Mental Health Services among respondents	51
Table 9	Satisfaction with Mental Health Services among Ever-Users (n = 71)	53
Table 10	Barriers to Seeking Mental Health Care among respondents	57

LIST OF FIGURES

Figure No.	Title	Page
Figure 1	Awareness of mental health services among respondents	38
Figure 2	Accessibility of mental health services among respondents	46
Figure 3	Satisfaction toward of mental health services among respondents	54

LIST OF ABBREVIATIONS

ANOVA: Analysis of Variance

aOR: Adjusted Odds Ratio

CI: Confidence Interval

GAD-7: Generalized Anxiety Disorder-7 (scale)

MB;BS: Bachelor of Medicine, Bachelor of Surgery

NHS: National Health Service (UK)

PHQ-9: Patient Health Questionnaire-9 (depression scale)

SPSS: Statistical Package for the Social Sciences

UBTH: University of Benin Teaching Hospital

UNIBEN: University of Benin

WHO: World Health Organization

DEFINITION OF TERMS

Accessibility: The ease with which medical students can obtain mental health services, considering factors such as location, cost, operating hours, appointment availability, and confidentiality.

Awareness: The state of being informed or knowledgeable about the existence, location, and procedures for accessing available mental health services.

Barriers: Obstacles (structural, institutional, or personal) that prevent or delay individuals from seeking and utilizing mental health services.

Burnout: A state of emotional, physical, and mental exhaustion caused by prolonged stress, often characterized by reduced accomplishment and depersonalization, common among medical students.

Mental Health Service: Professional support provided for psychological well-being, including counselling, psychiatric care, peer support groups, and helplines offered by the university or affiliated institutions.

Stigma: Negative attitudes, beliefs, or stereotypes that lead to discrimination against individuals with mental health conditions, often resulting in reluctance to seek help.

Utilization: The actual use of mental health services by medical students, including frequency of use, types of services accessed, and levels of satisfaction.

ABSTRACT

Background: Medical students experience disproportionately high rates of psychological distress, including depression, anxiety, and burnout, yet mental health service utilization remains strikingly low. At the University of Benin, despite the availability of counselling and psychiatric services, little empirical data exists on students' awareness, accessibility perceptions, utilization patterns, and barriers to care.

Objective: To examine the awareness, accessibility, utilization, and perceived barriers related to mental health services among medical students at the University of Benin.

Methods: A descriptive cross-sectional study was conducted among 550 medical students selected through stratified random sampling from all six years of the MB;BS program. Data were collected using a structured, self-administered questionnaire assessing socio-demographic characteristics, awareness of mental health services, perceived accessibility, utilization patterns, and barriers to care. Descriptive statistics, chi-square tests, and binary logistic regression were employed for analysis, with statistical significance set at $p < 0.05$.

Results: The mean age was 22.4 years (SD ± 3.1), with a slight female majority (52.2%). Good overall awareness of mental health services was observed in 59.3% of students, with 76.7% aware that University of Benin provides mental health services. However, practical knowledge gaps existed: only 55.8% knew service locations and 58.2% understood confidentiality provisions. Perceived accessibility was positive among 91.8% of students, though only 48.5% found operating hours convenient. Actual utilization was extremely low (12.9%), with peer-support groups (45.1%) and helpline/online support (45.1%) being the most used services. Academic pressure (11.3%) and depression (7.0%) were the commonest reasons for seeking

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help. Barriers were widely endorsed: confidentiality fears (79.1%), fear of judgment (78.7%), perceived ineffectiveness of services (77.4%), and lack of time (76.3%). Significant predictors of good accessibility and awareness included: male sex (aOR = 0.51, 95% CI: 0.27–0.98, p = 0.042) for lower odds of good accessibility, and monthly allowance below ₦60,000 (aOR = 0.69, 95% CI: 0.48–0.98, p = 0.037) for lower odds of good awareness.

Conclusion: Despite goodawareness and favorable accessibility perceptions, mental health service utilization among medical students at the University of Benin is critically low, driven by intersecting stigma-related, practical, and cultural barriers. Urgent institutional interventions are required to address confidentiality concerns, time constraints, and socio-demographic inequities to bridge the treatment gap.

Keywords: Mental health services, medical students, awareness, accessibility, utilization, barriers, University of Benin, Nigeria.

CHAPTER ONE

INTRODUCTION

BACKGROUND

The mental health of medical students has emerged as a significant concern in medical education globally. Extensive research demonstrates that medical students experience disproportionately high rates of psychological distress, including depression, anxiety, and burnout, compared to the general population and peers in other academic disciplines.[1] [2] This elevated risk stems from the uniquely demanding nature of medical training, which combines rigorous academic expectations, clinical responsibilities, sleep deprivation, and frequent exposure to human suffering.[3]

At institutions worldwide, mental health disorders among medical students are increasingly reported. A study at Mansoura University in Egypt revealed that 77.8% of students felt they needed mental health care, with female students and urban residents being particularly vulnerable.[4] Similarly, research from Iran found that 49.5% of medical students scored above clinical thresholds for psychological distress.[1] These findings highlight that the prevalence of mental health issues among medical students far exceeds that of the general population.

Despite the availability of mental health services in some institutions, many students do not utilize them. A comprehensive scoping review categorized barriers to help-seeking into three groups: systemic (e.g., financial constraints, limited availability), attitudinal (e.g., stigma, self-reliance), and institutional (e.g., fear of documentation affecting academic records).[2] According to researchers in Egypt, more than half of the students (56%) preferred to handle problems independently, 61% were unsure where to access care, 55% cited financial issues, and 54%

found it difficult to take time away from studies.[4] These trends suggest that simply offering services is insufficient without addressing the multifaceted barriers preventing their use.

In Nigeria, mental health services remain underutilized, even among medical students who are presumed to have higher health literacy due to their medical training. The University of Benin offers mental health services such as counseling and psychiatric care. However, little empirical data exists on how medical students at University of Benin perceive, access, and use these services. The COVID-19 pandemic has likely worsened existing mental health challenges among medical students, such as anxiety, depression, burnout, and sleep disorders, making it even more imperative to assess their current mental health support needs.[4]

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1.2. STATEMENT OF THE PROBLEM

The mental health of medical students has increasingly become a matter of concern in both academic and healthcare settings. Students pursuing medical degrees are subjected to a unique set of stressors that significantly increase their risk for mental health issues. These include intense academic pressures, emotionally taxing clinical experiences, irregular sleep patterns, and high expectations from both faculty and society.[1] These challenges, if unaddressed, often culminate in serious psychological distress manifesting as depression, anxiety, burnout, and in some cases, suicidal ideation.[2] [3] While these issues are well-documented globally, their impact within specific institutional contexts, remains underexplored.

At University of Benin, anecdotal evidence and informal reports suggest that medical students are indeed struggling with mental health challenges. It remains unclear how many students are aware of the available mental health services, whether these services are perceived as accessible and adequate, and what specific barriers hinder students from seeking help. This gap in

knowledge presents a critical obstacle to developing targeted interventions that can improve student wellbeing and academic performance.[4]

Moreover, the stigma surrounding mental health persists as a significant barrier to help-seeking behaviour. Cultural and societal expectations often portray medical students as resilient and immune to psychological strain, thereby discouraging vulnerability and reinforcing silence around mental health issues.[2] In addition, institutional factors such as concerns about confidentiality, fear of being perceived as weak, and apprehensions about academic or professional repercussions — may further discourage students from utilizing mental health services.[5]

Compounding these challenges is the limited visibility of existing services. Without adequate promotion or integration into student life, services such as counseling and psychiatric support may remain underutilized simply because students do not know they exist or do not understand how to access them.[4] Practical challenges such as location, cost, inflexible operating hours, or cumbersome administrative processes may also create additional obstacles.[3 6]

Thus, the absence of comprehensive data on awareness, accessibility, and utilization of mental health services among medical students at University of Benin represents a significant problem. Without this information, institutional efforts to support students remain reactive rather than proactive, potentially leaving a vulnerable population underserved.

1.3. JUSTIFICATION OF THE STUDY

This study is both timely and necessary for several compelling reasons. It addresses a critical student welfare issue that has implications for the academic success, clinical competence, and long-term wellbeing of future healthcare providers.[1] [2] Providing evidence-based

recommendations to improve mental health support for medical students is therefore not just an educational concern, but a public health priority.

Achieving this public health priority requires context-specific evidence. The successful implementation of a dedicated mental health program at Cambridge University demonstrates that flexibility, confidentiality, and tailored support can significantly increase student satisfaction and service uptake.[4] However, applying similar principles at the University of Benin first requires an understanding of local students' awareness, perceived barriers, and utilization patterns. This study will provide the evidence base needed to adapt such successful models to the Nigerian context..

This study will provide vital data that can inform institutional policies and programming at University of Benin. By assessing awareness levels and identifying structural, cultural, and psychological barriers to service utilization, the study will offer evidence-based recommendations that can be used to revise existing services or design new interventions. These could include increasing awareness through orientation programs and outreach campaigns, extending operating hours to suit student schedules, reducing financial burdens, and embedding mental health literacy into the medical curriculum.[2 5]

Furthermore, the study contributes to the limited body of context-specific research on medical student mental health in Nigeria. While many studies have examined this issue in Western or Middle Eastern institutions, few have focused on West African contexts, where cultural dynamics and healthcare infrastructure differ significantly.[5] This research will fill a critical gap in the literature, providing a valuable benchmark for other medical schools across the region facing similar challenges.

Beyond its immediate academic and institutional benefits, the long-term impact of the study lies in promoting a cultural shift within medical education. Normalizing help-seeking behavior, reducing stigma, and encouraging open conversations about mental health can reshape the hidden curriculum that discourages vulnerability in medical training.[2 5] By fostering a more supportive environment, University of Benin can play a key role in cultivating future doctors who are not only clinically skilled, but also emotionally resilient and better equipped to advocate for their own mental health and that of their patients.[3]

Ultimately, the justification for this study lies in its potential to catalyze meaningful change — by highlighting unmet needs, providing actionable insights, and setting the stage for more inclusive and compassionate medical training environments.

1.4. RESEARCH QUESTIONS

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1. What is the level of awareness of available mental health services among medical students at the University of Benin?
2. How accessible are mental health services to medical students at University of Benin in terms of factors such as location, cost, confidentiality, and operating hours?
3. What are the patterns of utilization of mental health services by medical students at University of Benin, including frequency of use, types of services accessed, and levels of satisfaction?
4. What are the key barriers that prevent medical students at University of Benin from seeking and utilizing available mental health support services?

1.5. OBJECTIVES

GENERAL OBJECTIVE

To examine the awareness, accessibility, utilization, and perceived barriers related to mental health services among medical students at the University of Benin, with a view to providing evidence-based recommendations for improving service delivery and promoting medical students' mental well-being.

SPECIFIC OBJECTIVES

1.5.1. To assess the awareness level of available mental health services among medical students at University of Benin.

1.5.2. To determine the accessibility of mental health services for medical students at the University of Benin .

1.5.3. To determine the utilization patterns of mental health services by medical students at University of Benin.

1.5.4. To identify key barriers preventing medical students from seeking mental health support.

CHAPTER TWO

LITERATURE REVIEW

2.1. THE AWARENESS LEVEL OF AVAILABLE MENTAL HEALTH SERVICES AMONG MEDICAL STUDENTS.

A cross-sectional pilot study carried out in Australia in 2016 involving 127 medical students revealed several important findings regarding mental health service awareness.[9] While an encouraging 81% of participants were aware of the university's health services, only 33% had actually utilized these resources.[9] This significant gap between awareness and utilization suggests that mere knowledge of available services does not necessarily translate to their use. The study also found that only 38% of students felt these services were adequately promoted, indicating potential shortcomings in how mental health resources are communicated to the student population.[9] Interestingly, 63% of respondents reported having a general practitioner they could consult, which may reflect a preference for external healthcare providers over institutional services.[9] These findings highlight the complex interplay between service awareness, promotion strategies, and actual usage patterns.

A systematic review and meta-analysis of 10 cross-sectional studies across China, encompassing 30,817 medical students and published in 2019, provided compelling evidence about the prevalence of mental health issues in this population.[10] The analysis revealed alarmingly high rates of psychological distress, with 29% of students experiencing depression, 21% suffering from anxiety, and 11% reporting suicidal ideation.[10] While the study did not directly measure awareness of mental health services, the substantial prevalence of untreated conditions strongly suggests significant gaps in either service awareness or utilization.[10]

In the African context, a cross-sectional quantitative study assessing knowledge, attitudes, and perceptions of mental health among undergraduate medical students in Uganda was carried out in 2022.[5] The objective was to determine the level of mental health knowledge, attitudes towards mental illness, and perceptions about mental health services among students at a university in Uganda. The study population consisted of 259 medical students enrolled in the Bachelor of Medicine and Bachelor of Surgery program. Using convenience sampling, participants were recruited, and data were collected via an online self-administered questionnaire distributed through WhatsApp groups and email platforms.[5] The study found that although 77.72% of participants demonstrated high levels of knowledge regarding mental health, only 13.27% had actually utilized available mental health services.[5] Interestingly, students who had a personal history of mental illness tended to have more negative perceptions of mental health services.[5] Formal education sources contributed positively to knowledge acquisition, but this did not always translate into positive attitudes or service utilization.[5]

A descriptive cross-sectional study specifically evaluated the prevalence and factors affecting mental health among undergraduate medical students at a Nigerian university.[6] The study was conducted at Babcock University, a private tertiary institution in Ilisan-Remo, Ogun State, Nigeria, among students of the Benjamin Carson Snr. School of Health and Medical Sciences. The study population comprised current medical students from 100 to 600 level, with a sample size of 400 students selected using a computer-generated simple random method from a total population of 635 medical students.[6] Data collection employed a validated instrument comprising five sections, including sociodemographic characteristics, depression assessment using PHQ-9, anxiety assessment using GAD-7, stress assessment using Perceived Stress Questionnaire, and health-seeking behavior assessment with 11 items.[6] The findings regarding

awareness of mental health services revealed important insights. While the majority of respondents (68.8%) were aware of the mental health services and resources available in their institution, a substantial proportion (31.3%) reported no awareness of these services.[6]

2.2. ACCESSIBILITY OF MENTAL HEALTH SERVICES FOR MEDICAL STUDENTS.

A qualitative study conducted in 2024 provides valuable insights into the systemic challenges students face in accessing mental health care^10^. The research explored healthcare professionals' perspectives on university students' mental health access through the lens of "candidacy" - the process by which individuals come to be recognized as needing care[10]. The study interviewed mental health professionals from university services, NHS general practice, and psychological services, using purposive sampling to ensure diverse representation[10]. The findings revealed that students' ability to access care was heavily influenced by their social context, the pressures of the healthcare system, and whether their needs were perceived as legitimate[10]. Students with greater social and financial resources were more likely to successfully navigate the system, while those without such advantages often faced significant barriers[10]. The study also highlighted how fragmented services and high demand create obstacles to timely care[10].

A multiple cohort study was conducted to describe student access to university mental health services and identify barriers and gaps in support.[11] This study, spanning 2018 to 2023, utilized self-report data from 4,138 undergraduate students who completed the U-Flourish Well-Being Survey at the start and completion of their first year. The study population comprised first-year undergraduate students at a Canadian university, with a sample of 4,138 students who completed both baseline and spring surveys. Data collection employed validated measures of mental health symptoms, barriers to care, and open-text questions about the mental health care experience.[11]

The findings revealed that only 15% of students surveyed accessed university mental health services over their first year, despite 43% screening positive for anxiety and/or depression at university entry.[11] Accessibility varied significantly across demographic groups, with access being more likely among older students, gender-diverse individuals, females, those with prior mental disorders, and those screening positive for anxiety or depression.[11] The study also identified significant variations in wait times across services, with 58% of students waiting three or more weeks to see a psychiatrist and 38% waiting similar durations to see a family physician for mental health concerns.[11] Approximately one-quarter to one-third of students reported difficulty accessing services, with easy access most frequently reported for embedded counselling services (69%) and least frequently for psychiatric services (45%).[11]

A mixed methods systematic review with meta-analysis and meta-synthesis was conducted to determine the availability, accessibility, and utilization of mental health services or support among university students in Africa.[12] The study, published in 2025, included 18 studies published between 2000 and 2024, involving 57,949 university students from eight African countries: South Africa (4 studies), Ethiopia (3 studies), Egypt (3 studies), Nigeria (2 studies), Sudan (2 studies), Tanzania (2 studies), Kenya (1 study), and Cameroon (1 study).[12] The review found that students tend to access informal sources of mental health services more frequently than formal sources. The pooled proportion of students who accessed informal sources of mental health services was 21% (95% CI: 16%--25%), while the pooled proportion accessing formal sources was 15% (95% CI: 11%--18%).[12]

A descriptive cross-sectional study evaluated the prevalence and factors affecting the mental health of undergraduate medical students at a Nigerian university.[6] The study was conducted at Babcock University, a private tertiary institution in Ilisan-Remo, Ogun State, Nigeria, among

medical students from 100 to 600 level. A sample size of 400 students was selected using a computer-generated simple random method from a total population of 635 medical students. Data collection employed a validated instrument comprising five sections, including sociodemographic characteristics, depression assessment (PHQ-9), anxiety assessment (GAD-7), stress assessment (Perceived Stress Questionnaire), and health-seeking behavior assessment with 11 items.[6] The study identified that 77.5% of respondents were not interested in receiving mental health support or did not need such support, and 97.5% had never previously used any professional mental health services.[6] Among the few who had sought professional mental health services in the past, only 50% were satisfied with the services rendered.[6]

2.3. UTILIZATION PATTERNS OF MENTAL HEALTH SERVICES BY MEDICAL STUDENTS.

A retrospective cohort study conducted in Thailand and published in 2021 provides valuable baseline data on utilization patterns.[13] The study, which included 1,642 medical students from a university in Thailand, employed census sampling and utilized both the Thai Mental Health Indicators questionnaire and service records for data collection. The findings revealed strikingly low utilization rates, with only 8.3% of students accessing services despite significant mental health needs. Depression (3%), adjustment disorders (1.9%), and anxiety (1.9%) emerged as the most common presenting problems. The study identified students with poor preadmission mental health as being twice as likely to seek services (HR=2.11), suggesting that early screening could improve service utilization. However, substantial barriers including stigma, confidentiality concerns, and inconvenient service hours were found to significantly limit access.[13]

A UK-based mixed-methods service evaluation conducted between 2015 and 2019 offers insights into improving utilization through specialized services.[4] Focusing on 89 clinical medical

students through convenience sampling, the study combined validated psychological scales (CORE, PHQ-9, GAD-7) with qualitative feedback. The implementation of a dedicated student mental health service demonstrated measurable success, with referral rates increasing from 3.93% to 6.74% over four years. Key service attributes contributing to improved utilization included relatively short waiting times (median 26 days for psychiatry, 33 days for psychology) and flexible treatment approaches. However, the study also identified persistent concerns about confidentiality and fear of peer recognition as ongoing barriers to service utilization, particularly in hospital-based settings.[4]

A longitudinal analysis from a medical college in the United States, published in 2024, provides compelling evidence for targeted interventions to enhance utilization.[14] Using administrative data review methodology, the study tracked service utilization patterns before and after implementing specific institutional changes. The findings demonstrated that strategic interventions could double mental health visits (from 637 to 1,274 annually). Particularly effective measures included creating protected time for appointments, increasing free visits from 5 to 10 per student, and implementing anti-stigma campaigns. Despite these improvements, the study noted that structural barriers like time constraints and persistent confidentiality concerns continued to affect utilization patterns.[14]

A systematic review published in 2022 analyzed 44 studies on mental health service use among university students, including medical students, across multiple countries (mostly the United States).[15] Studies conducted in Brazil (2022) and the United States (2013) found that while 21-38.5% of medical students used services, uptake remained low due to stigma, lack of awareness, and confidentiality concerns.[15] On-campus services were underutilized despite

accessibility, and students with severe distress were more likely---but not guaranteed---to seek help.[15]

A mixed methods systematic review with meta-analysis and meta-synthesis was conducted to determine the availability, accessibility, and utilization of mental health services or support among university students in Africa.[12] The study, published in 2025, included 18 studies published between 2000 and 2024, involving 57,949 university students from eight African countries: South Africa (4 studies), Ethiopia (3 studies), Egypt (3 studies), Nigeria (2 studies), Sudan (2 studies), Tanzania (2 studies), Kenya (1 study), and Cameroon (1 study). The review employed a convergent segregated approach, with separate quantitative syntheses (including meta-analysis) and qualitative syntheses, followed by integration of evidence. Data were extracted from PubMed, ERIC, Cochrane Library, Trip database, and Semantic Scholar.[12] The findings revealed that a higher proportion of students utilized informal sources of mental health services compared to formal sources. The pooled proportion of students utilizing informal sources of mental health services was 42% (95% CI: 25%--59%), while the pooled proportion utilizing formal sources was 28% (95% CI: 20%--35%).[12] The most frequently utilized informal sources included religious leaders or spiritual help and traditional healers (to counter evil spirits).[12] The systematic review further reported that in a study examining mental healthcare utilization among first-year university students in South Africa, despite having access to free student counselling services on campus, less than one-third (28.9%) of first-year students with common mental disorders utilized mental health services in the preceding 12 months.[12]

A descriptive cross-sectional study was conducted to evaluate the prevalence and factors affecting the mental health of undergraduate medical students at a Nigerian university.[6] The study was carried out at Babcock University, a private tertiary institution in Ilisan-Remo, Ogun

State, Nigeria, among medical students from 100 to 600 level. A sample size of 400 students was selected using a computer-generated simple random method from a total population of 635 medical students. Data collection employed a validated instrument comprising five sections, including sociodemographic characteristics, depression assessment using PHQ-9, anxiety assessment using GAD-7, stress assessment using Perceived Stress Questionnaire, and health-seeking behavior assessment with 11 items.[6] The findings regarding utilization of mental health services revealed extremely low rates. Only 2.3% of respondents were currently receiving mental health support in school, and 97.5% had never previously used any professional mental health services.[6] Furthermore, 77.5% of respondents were not interested in receiving mental health support or did not need such support.[6] Among the few who had sought professional mental health services in the past, only 50% were satisfied with the services rendered.[6] The study identified that 87.0% of respondents were not comfortable discussing their emotional health with a counselor or mental health professional at their institution, which likely contributed to the low utilization rates.[6]

A cross-sectional survey was conducted to assess the factors affecting the utilization of mental health services among undergraduate students at Afe Babalola University, Ado-Ekiti, Nigeria.[16] The study population comprised undergraduate students from all six colleges, with a sample size of 450 students determined using Cochran's formula. A multi-stage sampling technique was employed, including cluster sampling, simple random sampling, proportionate allocation, and systematic random sampling. Data collection utilized a semi-structured self-administered questionnaire with six sections assessing sociodemographic characteristics, attitude, social support, barriers, utilization, and health-seeking behavior.[16] The findings revealed that the majority of students (66.4%) reported that they had never used mental health services, with only

4.4% using them occasionally and 1.6% using them always.[16] Overall assessment showed that 64.4% of students had poor utilization of mental health services, while only 35.6% had good utilization.[16] Regarding specific utilization patterns, 59.1% of students reported that they never discussed their personal issues with a mental health specialist, while only 4.4% always did so.[16] Additionally, 54.4% of students reported that they were always restricted from using mental health services due to the lack of qualified mental health personnel.[16]

2.4. KEY BARRIERS PREVENTING MEDICAL STUDENTS FROM SEEKING MENTAL HEALTH SUPPORT.

A comprehensive scoping review published in 2022 examined 33 international studies, uncovering several critical barriers.[2] The research team systematically analyzed data from North America, Europe, Asia, Australia, and South America, finding that medical students' primary concern involved potential career consequences.[2] Many feared that seeking help might negatively impact their residency applications or future employment opportunities. Confidentiality breaches ranked as another major worry, with students anxious about sensitive information becoming known to faculty or peers.[2] The review also identified troubling patterns of symptom normalization, where students dismissed their mental health struggles as simply part of medical training.[2]

A scoping review published in 2024 systematically examined these barriers through an analysis of 12 studies from PubMed, Web of Science, and Scopus.[17] Conducted at a medical institute in India, this review found that stigmatization was the most prominent barrier, with students fearing judgment from peers and faculty if they sought mental health support.[17] Many students held attitudinal beliefs that experiencing mental health struggles was a sign of weakness and that they should handle these issues independently. Confidentiality concerns were also significant,

particularly worries that seeking help might negatively impact their future career prospects.[17] Additionally, the demanding schedules of medical training created substantial time constraints, making it difficult for students to access care even when they recognized the need. The review also noted that some students lacked knowledge about available services or doubted their effectiveness, further reducing utilization.[17] To address these barriers, the authors proposed interventions such as mental health awareness campaigns, universal screening programs, internet-based services, and collaborations with local mental health professionals.[17]

Egyptian medical students encounter their own unique set of obstacles, according to a study of 558 participants carried out in 2022.[3] Over three-quarters reported needing but not seeking mental health support. Practical barriers like not knowing where to find help affected 61% of respondents, while more than half believed they should handle problems without professional assistance.[3] The heavy academic workload left many feeling they could not spare time for treatment, and cultural factors played a notable role, with students concerned about family reactions to mental health care.[3]

A mixed methods systematic review with meta-analysis and meta-synthesis was conducted to determine the availability, accessibility, and utilization of mental health services or support among university students in Africa.[12] The study, published in 2025, included 18 studies published between 2000 and 2024, involving 57,949 university students from eight African countries: South Africa (4 studies), Ethiopia (3 studies), Egypt (3 studies), Nigeria (2 studies), Sudan (2 studies), Tanzania (2 studies), Kenya (1 study), and Cameroon (1 study). The findings identified three main categories of barriers to accessing mental health services. Instrumental-related barriers were cited by 48% of students (95% CI: 38%--58%), including mental health literacy (not knowing where to seek professional care or ignorance of health services), financial

constraints (inability to afford costs or lack of transport), lack of time, and having no one to help access professional care.[12] Attitudinal-related barriers were cited by 47% of students (95% CI: 37%--58%), including preferring to deal with problems alone (73%), preferring help from family or friends (64%), preferring alternative forms of care such as traditional or religious healing (59%), dislike talking about feelings (58%), concern about medication side effects (50%), and mistrust in the health system (34%).[12] Other attitudinal barriers reported included thinking the problem would get better by itself (74.4%), being worried about uncertainties surrounding mental health diagnosis or fear of the unknown (59%), and not recognizing or knowing what signs or symptoms are related to psychological problems (58%).[12] Stigma-related barriers were cited by 44% of students (95% CI: 35%--54%), including concern about what family might think (27%), feeling embarrassed or ashamed (27%), concern about what peers might think (19%), and concern about being seen as weak or crazy.[12] Additional stigma-related barriers identified included not wanting a mental health problem to be on medical records (63.5%), concern that it might harm chances when applying for jobs (58.7%), and concern about being seen as a bad parent (49.3%).[12]

A descriptive cross-sectional study was conducted to evaluate the prevalence and factors affecting the mental health of undergraduate medical students at a Nigerian university.[6] The study was carried out at Babcock University, a private tertiary institution in Ilisan-Remo, Ogun State, Nigeria, among medical students from 100 to 600 level. A sample size of 400 students was selected using a computer-generated simple random method from a total population of 635 medical students. The findings identified several barriers to seeking mental health support. Lack of institutional support was reported by 170 respondents (42.5%) who felt their mental health was not at all prioritized by the institution.[6] Poor awareness of available services was reported by

125 respondents (31.3%), and poor utilization of mental health services was reported by 310 respondents (77.5%).[6] Additionally, 87.0% of respondents were not comfortable discussing their emotional health with a counselor or mental health professional at their institution.[6] The study found that 97.5% had never previously used any professional mental health services, and 77.5% were not interested in receiving mental health support or did not need such support.[6] Among the few who had sought professional mental health services in the past, only 50% were satisfied with the services rendered.[6]

A cross-sectional survey was conducted to assess the factors affecting the utilization of mental health services among undergraduate students at Afe Babalola University, Ado-Ekiti, Nigeria.[16] The study population comprised undergraduate students from all six colleges, with a sample size of 450 students determined using Cochran's formula. A multi-stage sampling technique was employed, including cluster sampling, simple random sampling, proportionate allocation, and systematic random sampling. The findings revealed multiple barriers preventing students from seeking mental health support. Cost was identified as a barrier by 289 students (64.2%) who stated that mental health services were too expensive.[16] Privacy and confidentiality concerns were reported by 330 students (73.3%) who were worried about their privacy and confidentiality if they used mental health services.[16] Lack of time was cited by 325 students (72.2%) who reported not having enough time to visit the mental health clinic.[16] Poor knowledge of mental health services was reported by 267 students (59.3%) who stated they did not have enough knowledge on what mental health services entail.[16] Distance to the mental health facility was identified as a barrier by 275 students (61.1%) who reported that the facility was too far from where they stayed.[16] Embarrassment about being seen at a mental health clinic was reported by 204 students (45.3%).[16] Lack of confidence in services was indicated by 230 students (51.1%)

who did not think the services rendered at the mental health clinic would help.[16] Previous negative experiences with counselors were reported by 153 students (34.0%).[16] Lack of qualified mental health personnel was identified by 245 students (54.4%) who stated they were restricted from using mental health services due to this factor.[16]

CHAPTER THREE

METHODOLOGY

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3.1 STUDY AREA

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The study was conducted at the University of Benin (UNIBEN), specifically within the School of Medicine, College of Medical Sciences, located at the Ugbowo Campus in Benin City, Edo State, Nigeria.

The University of Benin (UNIBEN) is a federal government owned tertiary institution, located along the Benin-Lagos Expressway, Ugbowo, in Ovia North-East Local Government Area of Benin City. It lies geographically between latitude 6°20.022′N and longitude 5°36.009′E. Historically, the University of Benin was established on the 23rd of November, 1970. It is one of Nigeria's first-generation federal universities. The University was established, first as Midwest Institute of Technology. After attaining the status of a full-fledged university in line with requirements of the National Universities Commission on the 1st of July, 1971, the name was changed to the University of Benin. The Institution became a federal government owned University on the 1st of April, 1975. The university has an estimated 60,000 students population who are spread across the two campuses of the University. The University has 15 Faculties, 1 College and 3 Institutes. The College of Medical Sciences is a premier center for medical training in Nigeria, comprising four faculties: Basic Medical Sciences, Basic Clinical Sciences, Medicine and Dentistry.[18,19]

This study was carried out on students of the faculty of Medicine and focused on the lecture halls and clinical rotation sites at the University of Benin Teaching Hospital - UBTH utilized by medical students. The School of Medicine runs a 6-year Bachelor of Medicine, Bachelor of

Surgery (MB;BS) program, with a current estimated student population of over 1,000 students across all levels.[20]

Benin City is the capital and largest urban city in Edo State occupying a land area of 5002 Km. It is bounded by latitudes 60 06' N, 60 30' N and longitudes 50 30' E, 50 45' E of the Greenwich meridian and is situated 200 miles East of Lagos, and 25 miles north of the Benin River. It has a projected population of 4,634,480 as at 2022. The city comprises 3 major local governments out of the eighteen local government areas of Edo state, namely: Oredo, Egor, and Ikpoba-Okha Local Government Areas. The Indigenous ethnic group is Benin, and their language is Benin. The major business of the city includes transportation and petty trading. There are brewing factories, an Oil pipeline and a petroleum storage depot, and other small and medium scale production facilities.[21]

3.2 STUDY DESIGN

A descriptive cross-sectional study design was employed for this study.

3.3 Study Duration

The study was conducted over a period of one year.

Topic selection: April 2025

Introduction: April 2025

Literature Review: April-May 2025

Methodology: August 2025

Pretesting: September 2025

Data collection and Analysis: October- Decemeber 2025

Results: January 2025

Discussion and Conclusion: February- April 2026

3.4 STUDY POPULATION

The study was carried out among all fully registered undergraduate medical students (MB;BS) at the University of Benin ,Ugbowo, Benin City, Edo State, during the study period. This encompasses students from 100 level to 600 level.

3.5 SELECTION CRITERIA

3.5.1 Inclusion Criteria

1. Must be a matriculated student of the School of Medicine, University of Benin.
2. Medical students present in school during the period of data collection.
3. Medical students who grant voluntary informed consent to participate.

3.5.2 Exclusion Criteria

1. Medical students who are physically or mentally unfit to complete the questionnaire at the time of administration.
2. Medical students who explicitly decline to participate.

3.6 SAMPLE SIZE DETERMINATION

The minimum sample size was calculated using Cochran's formula for descriptive studies

$$n = \frac{Z^2 pq}{d^2}$$

Where,

n = minimum sample size

Z = standard normal deviate = 1.96 at 95% confidence interval

p = prevalence of the characteristic of interest

p = 0.313 (prevalence of poor awareness from Nigerian study)[6]

q = 1-p

d = degree of precision desired set at 0.05

q = 1 – p

= 1- 0.5

= 0.5

$$n = \frac{1.96^2 \ x\ 0.313\ x\ 0.687}{0.05^2}$$

n = 330.4 ≈ 330

Non-Response rate

A 10% non-response rate was added to the sample size, utilizing the formula of the Non-response rate

$$nf = \frac{n}{1 - nr}$$

Where;

n_f = Final Minimum Sample Size

n = Minimum Sample Size

nr = Non-response rate at 10% = 0.1

Thus;

$nf = \frac{330}{1-0.1}\, x\, 1.5$

≈ 550

Therefore, a minimum of 550 medical students was recruited for the study.

3.7 SAMPLING TECHNIQUE

A stratified random sampling technique was employed to ensure proportional representation across all six levels of medical education at the University of Benin. This approach accounted for the varying population sizes across levels and ensures that each stratum (year of study) contributed to the sample in proportion to its actual size in the student population.

Step 1: Define Strata

The study population wasdivided into six mutually exclusive strata based on year of study:

Step 2: Proportionate Allocation

The number of students selected from each stratum was calculated using the formula:

nh=NhN×n*nh*=*NNh*×*n*

Where:

- nh*nh* = sample size for stratum h*h*
- Nh*Nh* = total population of stratum h*h*
- N*N* = total student population (1,213)
- n*n* = total sample size (550)

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Step 3: Selection of Participants

Within each stratum, participants were selected using simple random sampling. A complete list of medical students for each level was obtained from the Faculty of Medicine, University of Benin. Each student was assigned a unique number. Using a random number generator (or lottery method), the required number of students (nh*nh*) were selected from each level.

3.8 Data Management

3.8.1 Method of Data Collection

Data was collected using a structured, self-administered questionnaire. The questionnaire was distributed to selected students either in person (paper form) or electronically (online form) depending on feasibility. Research assistants explained the study and invited participation, providing informed consent forms and the questionnaire. Participants completed the questionnaire anonymously and privately, returning it in sealed envelopes or via a secure online submission to preserve confidentiality. The questionnaire covered sections on socio-demographics, awareness of mental health services, perceptions of accessibility (location, cost,

confidentiality, operating hours), prior utilization of services, and perceived barriers to seeking help.

3.8.2 TOOLS FOR DATA COLLECTION

Data was collected using a structured, self-administered questionnaire developed specifically for this study. The instrument was designed after an extensive review of literature on mental health service awareness, accessibility, utilisation, and barriers among university students. The final questionnaire comprised five sections (A, C, D, E, F) containing mostly closed-ended questions, with a few open-ended items to capture additional qualitative insights. No personally identifying information was collected.

Section A: Socio-demographic characteristicsThis section contained eight items that captured the respondents' background: age (in years), sex (Male/Female), marital status (Single, Married, Divorced, Prefer not to say), year of study (Year 1 to Year 6), type of accommodation (Hostel, Off-campus, With family, Other), monthly allowance/financial support (<₦20,000, ₦20,000–₦39,999, ₦40,000–₦59,999, ≥₦60,000), ethnic group (Benin, Esan, Igbo, Yoruba, Hausa, Etsako, Owan, Others), and religious affiliation (Christianity, Islam, Traditional, Other). These variables served as independent factors in the bivariate and multivariate analyses.

Section C: Awareness of mental health services
Awareness was assessed with eleven dichotomous (Yes/No) items. Respondents were asked whether they were aware that the University of Benin Teaching Hospital (UBTH) provides mental health services, and whether they had heard of specific services: counselling/psychological services, psychiatric/mental health clinic, peer-support groups, and mental health helpline/digital support. Additional items probed knowledge about the location of

services, how to book an appointment, the cost of accessing care, confidentiality of services, who provides the services, and whether medical students are eligible to use them. Each correct/affirmative answer was scored 1, yielding a total awareness score ranging from 0 to 11.

Section D: Accessibility of mental health services

Perceived accessibility was measured using ten Likert-type statements reflecting various dimensions of access: location convenience, operating hours, affordability, ease of obtaining appointments, privacy/comfort of the clinic environment, trust in confidentiality, adequacy of staffing levels, comfort with provider type, distance/time, and cultural sensitivity/student-friendliness. Responses were scored on a five-point scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Higher scores indicated a more positive perception of accessibility.

Section E: Utilization of mental health services

This section first asked whether the respondent had ever used any mental health service at UBTH (Yes/No). Respondents who answered "Yes" were directed to a set of follow-up questions: the specific services used (multiple response: counselling, psychiatric clinic, peer-support group, helpline/online support, and an "Other" option with a free-text field), time since most recent visit, frequency of use in the past 12 months, who initiated the visit, and reasons for seeking help (multiple response: stress, anxiety, depression, academic pressure, family/relationship issues, sleep problems, referral by doctor, and an "Other" text field). Satisfaction with the services received was rated on five dimensions: staff attitude, privacy/confidentiality, waiting time, service quality, and follow-up care. Each satisfaction item used a five-point scale from 1 (Very Dissatisfied) to 5 (Very Satisfied). Respondents who had never used the services were asked to indicate their main reasons for non-utilisation (multiple response with an "Other" text field).

Answers from this section served to describe utilisation patterns, levels of satisfaction, and self-reported obstacles to use.

Section F: Barriers to seeking mental health care

Twelve attitudinal and practical barriers were presented as statements, and respondents indicated their level of agreement on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The items covered fear of being judged (stigma), confidentiality concerns, preference for self-reliance, belief that seeking help is a sign of weakness, lack of time, cost, not knowing where to find services, doubts about service effectiveness, worry that faculty might discover the visit, discomfort about being seen entering the clinic, religious/cultural beliefs discouraging help-seeking, and previous negative experiences with healthcare services. The items captured the multi-dimensional barriers that prevent medical students from seeking professional mental health support.

3.8.3 RESEARCH ASSISTANT

Before the study began, the assistants who were medical students from the University of Benin were given comprehensive training to ensure they fully understood the study's goals and how to administer the questionnaires ethically and professionally. They were also trained to handle sensitive topics and build rapport with participants, ensuring a respectful and welcoming approach.

3.8.4. PRETESTING

The questionnaire was pre-tested at the hostels of residence. Ten percent of our sample size was used for pretesting.

3.8.5 Data Analysis

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Data analysis was conducted using the Statistical Package for Social Sciences (SPSS) version 26.0. The analysis proceeded in two main phases: (1) measurement and scoring of variables, with specific focus on awareness; and (2) statistical analysis comprising univariate, bivariate, and multivariate techniques to address the study objectives.

Scoring system

Awareness of Mental Health Services (Section C)
Awareness was assessed using 10 items from Section C of the questionnaire. Each dichotomous item (Yes/No) is scored as 1 for a correct or affirmative response and 0 for an incorrect or negative response. The sub-item on awareness of specific services (counselling, psychiatric clinic, peer support, helpline) awards 1 point for each correctly identified service (maximum 4 points). The total awareness score is the sum of all points, ranging from 0 to 11. Based on the score distribution, awareness was categorized as:

Good awareness: Score ≥7

Moderate awareness: Score 4–6

Poor awareness: Score ≤3

Other Variables Sociodemographic characteristics (age, sex, year of study, etc.) was summarized using frequencies and percentages. Accessibility, utilization, and barriers was analyzed descriptively (proportions, means) without composite scoring, as the primary focus of measurement is awareness.

(ii) Statistical Analysis

Univariate Analysis

Descriptive statistics was used to summarize all study variables. Categorical variables (e.g., sex, year of study, awareness category, utilization status, barriers) was presented as frequencies and percentages. Continuous variables (e.g., age) was summarized using means, standard deviations, and ranges.

Bivariate Analysis

To examine associations between independent variables (sociodemographic characteristics, awareness category, etc.) and outcome variables (utilization, perceived barriers), bivariate tests was employed. Pearson's chi-square test was used for categorical-categorical comparisons. For continuous variables, independent t-tests (two groups) or one-way analysis of variance (ANOVA) with post-hoc tests (for more than two groups) will be applied. The level of statistical significance was set at $p < 0.05$.

Multivariate Analysis

Binary logistic regression was performed to identify independent predictors of mental health service utilization (ever used vs. never used). Variables that show significance at $p < 0.2$ in bivariate analysis was entered into the multivariable model. Adjusted odds ratios (aOR) with 95% confidence intervals was reported to quantify the strength of associations while controlling for potential confounders. Model fit was assessed using the Hosmer-Lemeshow goodness-of-fit test.

All analyses was conducted in accordance with the study objectives:

- Objective 1 (awareness) was addressed using descriptive frequencies and percentages.
- Objective 2 (accessibility) was addressed using descriptive statistics (proportions of students reporting convenience, cost, confidentiality, etc.).
- Objective 3 (utilization patterns) was addressed using descriptive statistics for users, and logistic regression to examine predictors.
- Objective 4 (barriers) was addressed by reporting proportions of students endorsing each barrier and comparing barrier prevalence across sociodemographic subgroups using chi-square tests.
-

Presentation of Awareness Findings: The findings on awareness of mental health services was presented using descriptive tables showing the proportion of students familiar with various institutional mental health services. These tables was supported by narrative explanations that highlight overall trends and notable differences across student groups. Graphical representations such as pie charts may be used to visually illustrate awareness patterns.

Presentation of Accessibility Findings: Data on accessibility was presented through tables and figures that display students' ratings of different accessibility dimensions, including physical access, confidentiality, affordability, and operating hours. The accompanying narrative described these patterns clearly, indicating areas where students perceive high or low accessibility.

Presentation of Utilization Findings: Utilization results shown in structured tables summarizing the frequency and types of mental health services used by students. Charts may be included to depict utilization trends across class levels or gender. The narrative section interpreted these results, explaining the extent of service use and any observed variations.

Presentation of Barriers to Service Use: Barriers to mental health service utilization was presented in both quantitative and qualitative formats. Quantitative data was displayed in a ranked table showing the most commonly reported barriers, while qualitative findings was summarized into thematic categories. The narrative integrated these two strands to give a comprehensive understanding of what prevents students from seeking help.

Presentation of Inferential Statistical Results: Findings from inferential analyses including chi-square tests, t-tests, ANOVA, and logistic regression was presented in statistical tables containing effect estimates, p-values, and confidence intervals. The narrative explained the significance of these findings, emphasizing key predictors and relationships that were relevant to the study objectives.

3.9 ETHICAL CONSIDERATION

Ethical approval for the study was sought from the UBTH Health Research Ethics Committee. The study protocol, questionnaire, and informed consent forms was submitted for review. All participants received clear information about the study's purpose, procedures, risks, and benefits, and was provided written informed consent before participating. Participation was entirely voluntary, and students may withdraw at any time without any negative consequences. To ensure confidentiality, completed questionnaires did not contain names or personal identifiers; data was reported in aggregate. Questionnaires was stored securely, and only the research team had access to the data. The study adhered to ethical principles such as those in the Declaration of Helsinki, ensuring respect for persons and confidentiality throughout the research process.

3.10 LIMITATION OF STUDY

This study had several limitations. The cross-sectional design allowed identification of associations but not causality. Self-administered questionnaires introduced recall and social desirability bias; anonymity and clear instructions was used to minimize these. Non-response bias occured since certain groups are less likely to participate; stratified random sampling and comparison of respondent demographics with the overall population addressed this. The single-institution focus limits generalizability; findings waspresented as context-specific, with recommendations for multi-institutional research. Despite these limitations, the study provided valuable baseline data on mental health services among medical students at the University of Benin.

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CHAPTER FOUR

RESULTS

SECTION A

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Table 1: Socio-Demographic Characteristics of respondents

Variable	Frequency (n=550)	Percent
Age Group (years)		
20–24	408	74.2
25–29	101	18.4
15–19	30	5.4
30–34	11	2.0
Sex		
Female	287	52.2
Male	263	47.8
Marital Status		
Single	540	98.2
Married	10	1.8
Year of Study		
100 level	105	19.1
200 level	167	30.4
300 level	146	26.5
400 level	39	7.1
500 level	36	6.5
600 level	57	10.4
Accommodation		
Off-campus	289	52.5
Hostel	179	32.5
With family	82	14.9
Monthly Allowance		
< ₦20,000	1	0.2
₦20,000 – ₦39,999	34	6.2
₦40,000 – ₦59,999	229	41.6
≥ ₦60,000	286	52.0
Ethnic Group		
Benin	162	29.5
Yoruba	116	21.1
Esan	112	20.4
Etsako	65	11.8
Igbo	58	10.5
Owan	27	4.9
Hausa	10	1.8
Religion		
Christianity	538	97.8
Islam	8	1.5

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Traditional	2	0.4
Other	2	0.4

Respondents were predominantly young adults aged 20–24 years (74.2%), with a slight female majority (52.2%). Nearly all were single (98.2%). Students were spread across all years of study, with the highest proportion in 200 level (30.4%). Most lived off-campus (52.5%) and received a high monthly allowance (≥ ₦60,000, 52.0%). The largest ethnic groups were Benin (29.5%), Yoruba (21.1%), and Esan (20.4%). Christianity was the predominant religion (97.8%). This profile reflects the typical demographic composition of medical students at the University of Benin.

SECTION B: AWARENESS OF MENTAL HEALTH SERVICES

Table 2: Awareness of Mental Health Services among respondents

Variable	Frequency (n=550)	Percent
Aware that UBTH provides mental health services		
Yes	422	76,7
No	128	23.3
Aware of counselling / psychological services		
Yes	375	68.2
No	175	31.8
Aware of psychiatric / mental health clinic		
Yes	375	68.2
No	175	31.8
Aware of peer-support groups		
Yes	354	64.4
No	196	35.6
Aware of mental health helpline / digital support		
Yes	352	64.0
No	198	36.0
Aware of where mental health services are located		
Yes	307	55.8
No	243	44.2
Know how to book an appointment		
Yes	340	61.8
No	210	38.2
Aware of the cost of accessing services		
Yes	320	58.2
No	230	41.8
Aware that mental health services are confidential		
Yes	320	58.2
No	230	41.8
Know who provides mental health services		
Yes	309	56.2
No	241	43.8
Know that medical students are eligible to use services		
Yes	343	62.4
No	207	37.6

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General awareness that UBTH provides mental health services was high (76.7%). Over 60% knew of specific services (counselling, psychiatric clinic, peer-support groups, helplines). However, fewer students possessed actionable knowledge: 55.8% knew the service location, 61.8% knew how to book an appointment, 58.2% knew the cost, 58.2% knew services are

confidential, 56.2% knew the providers, and 62.4% knew they were eligible. This indicates a gap between broad awareness and the practical details required to access care.

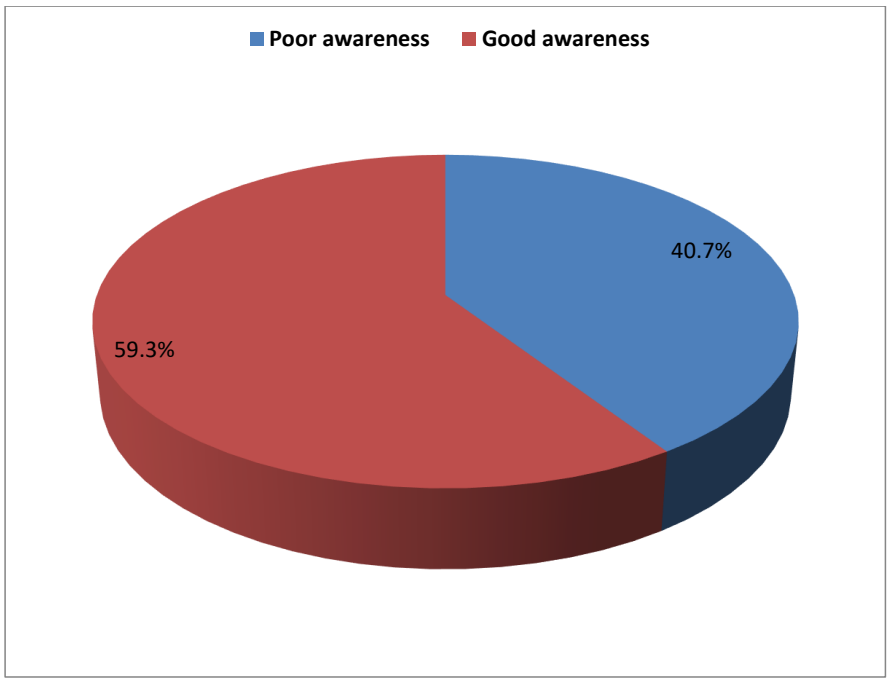

FIGURE 1: Awareness of mental health services among respondents

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Over half of the students (59.3%) had good overall awareness of mental health services. However, 40.7% still fell into the poor awareness category.

Table 3: Sociodemographic factors and Awareness of Mental Health Services among Respondents

Variable	Awareness of Mental Health Services		χ^2	p-value
	Good n (%)	Poor n (%)		
Age Group (years)				
15–19	19 (63.3)	11 (36.7)	3.987	0.263
20–24	232 (56.9)	176 (43.1)		
25–29	68 (67.3)	33 (32.7)		
30–34	7 (63.6)	4 (36.4)		
Sex				
Male	159 (60.5)	104 (39.5)	0.292	0.589
Female	167 (58.2)	120 (41.8)		
Marital Status				
Single	321 (59.4)	219 (40.6)	0.363	0.547
Married	5 (50.0)	5 (50.0)		
Year of Study				
100 level	57 (54.3)	48 (45.7)	6.523	0.259
200 level	109 (65.3)	58 (34.7)		
300 level	83 (56.8)	63 (43.2)		
400 level	26 (66.7)	13 (33.3)		
500 level	22 (61.1)	14 (38.9)		
600 level	29 (50.9)	28 (49.1)		
Accommodation				
Hostel	98 (54.7)	81 (45.3)	2.621	0.270
Off-campus	180 (62.3)	109 (37.7)		
With family	48 (58.5)	34 (41.5)		
Monthly Allowance				
< ₦20,000	1 (100.0)	0 (0.0)	5.187	0.159
₦20,000 – ₦39,999	17 (50.0)	17 (50.0)		
₦40,000 – ₦59,999	127 (55.5)	102 (44.5)		
≥ ₦60,000	181 (63.3)	105 (36.7)		
Religion				
Christianity	320 (59.5)	218 (40.5)	0.437	0.933
Islam	4 (50.0)	4 (50.0)		
Traditional	1 (50.0)	1 (50.0)		
Other*	1 (50.0)	1 (50.0)		

*Atheism

No sociodemographic variable was significantly associated with awareness level (all $p > 0.05$). Ethnic group approached significance ($p = 0.089$): 53.4% of Igbo students had poor awareness compared to 34.0% of Benin and 35.3% of Yoruba students. The remaining factors (age, sex,

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marital status, year of study, accommodation, monthly allowance, religion) showed no meaningful associations.

Table 4: Predictors of Awareness of Mental Health Services among respondents

Variable	B	aOR	95% Confidence interval		p-value
			Lower	Upper	
Age (years)	0.038	1.04	0.96	1.12	0.338
Sex					
Male	0.102	1.11	0.78	1.57	0.566
Female*		1.00			
Marital Status					
Single	0.318	1.38	0.38	4.96	0.627
Married*		1.00			
Year of Study					
100 level	0.231	1.26	0.65	2.46	0.497
200 level	0.624	1.87	1.00	3.47	0.048
300 level	0.276	1.32	0.71	2.46	0.385
400 level	0.532	1.70	0.71	4.08	0.233
500 level	0.389	1.48	0.60	3.63	0.397
600 level		1.00			
Accommodation					
Hostel	-0.251	0.78	0.53	1.13	0.192
Off-campus / With family (Ref.)		1.00			
Religion					
Christianity	0.396	1.49	0.46	4.78	0.507
Non-Christian		1.00	—	—	—
Monthly Allowance					
Below ₦60,000	-0.374	0.69	0.48	0.98	0.037
≥ ₦60,000	—	1.00	—	—	—

aOR = adjusted odds ratio; CI = confidence interval; Ref. = reference category, R^2 = 2.6% - 3.5%

After adjustment, 200 level students had significantly higher odds of good awareness than final-year students (aOR = 1.87, 95% CI: 1.00–3.47, p = 0.048). Students with a monthly allowance below ₦60,000 were less likely to have good awareness (aOR = 0.69, 95% CI: 0.48–0.98, p = 0.037). No other variable was significant. The overall model was not statistically significant (χ^2 = 14.54, p = 0.205; Nagelkerke R^2 = 2.6% - 3.5%).

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SECTION C

ACCESSIBILITY OF MENTAL HEALTH SERVICES

Table 5: Accessibility of Mental Health Services among respondents

Variable	Strongly Disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly Agree n (%)
Location of mental health services is convenient	21 (3.8)	99 (18.1)	162 (29.6)	154 (28.1)	112 (20.4)
Operating hours are suitable for my schedule	20 (3.6)	99 (18.0)	164 (29.8)	154 (28.0)	113 (20.5)
Cost of mental health services is affordable	9 (1.6)	38 (6.9)	131 (23.9)	202 (36.9)	168 (30.7)
Appointments/referrals are easy to obtain	10 (1.8)	44 (8.0)	124 (22.5)	229 (41.6)	143 (26.0)
The clinic environment is private and comfortable	10 (1.8)	35 (6.4)	122 (22.3)	212 (38.7)	169 (30.8)
I trust that my confidentiality will be maintained	10 (1.8)	41 (7.5)	111 (20.3)	215 (39.2)	171 (31.2)
There are enough mental health staff to attend to students	4 (0.7)	36 (6.6)	116 (21.1)	213 (38.8)	180 (32.8)
I feel comfortable with the type of providers available	6 (1.1)	26 (4.7)	107 (19.5)	228 (41.5)	182 (33.2)
Distance/time required to access the clinic is reasonable	7 (1.3)	43 (7.8)	101 (18.4)	216 (39.3)	182 (33.2)
Services are culturally sensitive and student-friendly	5 (0.9)	13 (2.4)	132 (24.1)	214 (39.1)	184 (33.6)

Students generally perceived the services as accessible: over two-thirds agreed that costs were affordable (67.6%), appointments easy (67.6%), the environment private (69.5%), and staff adequate (71.6%). The highest agreement was for comfort with providers (74.7%) and cultural sensitivity (72.7%). However, location convenience and operating hours received lower endorsement (48.5% each), with about one-fifth disagreeing. This suggests that physical access and scheduling remain practical concerns for a notable minority.

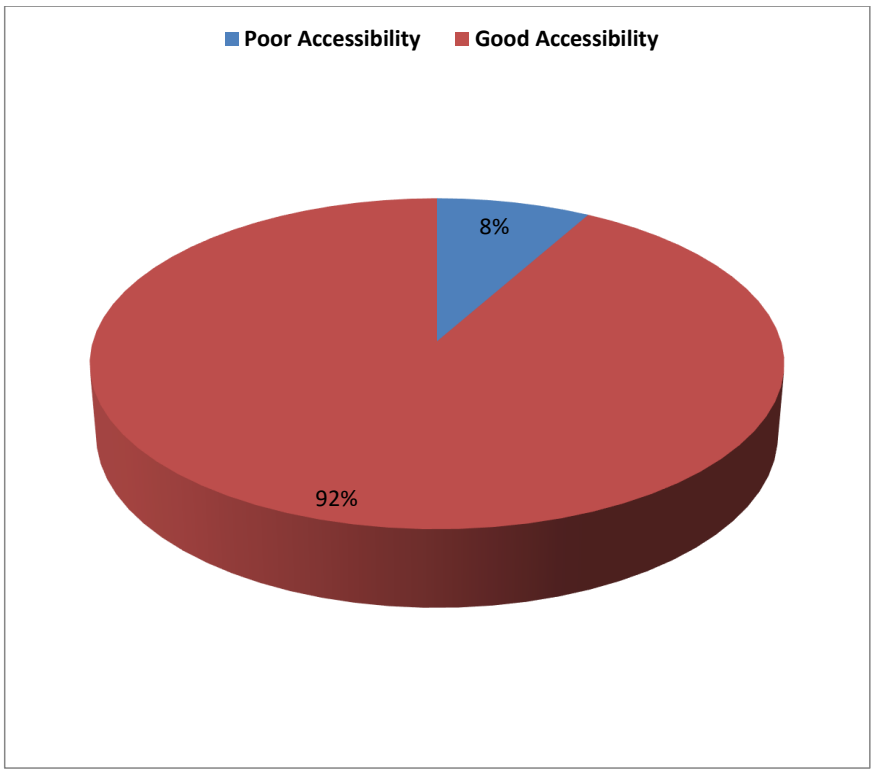

FIGURE 2: Accessibility of mental health services among respondents

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The vast majority of students (91.8%) held a positive attitude towards the accessibility of mental health services, indicating that most perceive the services as reachable and student-friendly. Only a small fraction (8.2%) viewed accessibility negatively.

Table 6: Sociodemographic characteristics and Accessibility of Mental Health Services among respondents

Variable	Accessibility		χ^2	p-value
	Good n (%)	Poor n (%)		
Age Group (years)				
15–19	26 (86.7)	4 (13.3)	2.969	0.396
20–24	378 (92.6)	30 (7.4)		
25–29	92 (91.1)	9 (8.9)		
30–34	9 (81.8)	2 (18.2)		
Sex				
Male	235 (89.4)	28 (10.6)	4.075	0.044
Female	270 (94.1)	17 (5.9)		
Marital Status				
Single	495 (91.7)	45 (8.3)	0.908	0.341
Married	10 (100.0)	0 (0.0)		
Year of Study				
100 level	95 (90.5)	10 (9.5)	3.748	0.586
200 level	156 (93.4)	11 (6.6)		
300 level	131 (89.7)	15 (10.3)		
400 level	36 (92.3)	3 (7.7)		
500 level	32 (88.9)	4 (11.1)		
600 level	55 (96.5)	2 (3.5)		
Accommodation				
Hostel	164 (91.6)	15 (8.4)	0.042	0.979
Off-campus	266 (92.0)	23 (8.0)		
With family	75 (91.5)	7 (8.5)		
Monthly Allowance				
< ₦20,000	1 (100.0)	0 (0.0)	7.580	0.056
₦20,000 – ₦39,999	29 (85.3)	5 (14.7)		
₦40,000 – ₦59,999	204 (89.1)	25 (10.9)		
≥ ₦60,000	271 (94.8)	15 (5.2)		
Religion				
Christianity	496 (92.2)	42 (7.8)	9.611	0.022
Islam	5 (62.5)	3 (37.5)		
Traditional	2 (100.0)	0 (0.0)		
Other	2 (100.0)	0 (0.0)		

Commented [NM29]: What is unique about 60k

Sex ($p = 0.044$) and religion ($p = 0.022$) were significantly associated with perceived accessibility. Females (94.1%) were more likely than males (89.4%) to report good accessibility. Christians (92.2%) were more positive than Muslims (62.5%). Ethnic group also showed significant differences; for example, Benin students had the highest proportion of positive attitudes (97.5%), while Yoruba students had the lowest (86.2%). Monthly allowance approached significance ($p = 0.056$). Age, marital status, year of study, and accommodation were not significantly associated.

Table 7: Predictors Accessibility of Mental health services among respondents

Variable	B	aOR	95% Confidence interval		P value
			Lower	Upper	
Age (years)	-0.021	0.98	0.85	1.12	0.765
Sex					
Male	-0.665	0.51	0.27	0.98	0.042
Female	—	1.00	—	—	—
Marital Status					
Single	-18.768	—*	—*	—*	0.999
Married	—	1.00	—	—	—
Year of Study					
100 level	-1.194	0.30	0.06	1.49	0.141
200 level	-0.700	0.50	0.10	2.37	0.380
300 level	-1.131	0.32	0.07	1.49	0.147
400 level	-0.779	0.46	0.07	3.06	0.421
500 level	-1.164	0.31	0.05	1.97	0.216
600 level	—	1.00	—	—	—
Accommodation					
Hostel	-0.053	0.95	0.47	1.89	0.881
Off-campus / With family (Ref.)	—	1.00	—	—	—
Religion					
Christianity	1.276	3.58	0.89	14.41	0.072
Non-Christian (Ref.)	—	1.00	—	—	—
Monthly Allowance					
Below ₦60,000	-0.839	0.43	0.22	0.83	0.012
≥ ₦60,000 (Ref.)	—	1.00	—	—	—

aOR = adjusted odds ratio; CI = confidence interval; Ref. = reference category. R^2 = 3.5% - 8.5%.*

Male students had half the odds of reporting good accessibility compared to females (aOR = 0.51, 95% CI: 0.27–0.98, p = 0.042). Students with a monthly allowance below ₦60,000 were also less likely to perceive good accessibility (aOR = 0.43, 95% CI: 0.22–0.83, p = 0.012). The overall model was significant (χ^2 = 19.73, p = 0.049; Nagelkerke R^2 = 3.5% - 8.5%). Marital status was not estimable due to separation.

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SECTION D

UTILIZATION OF MENTAL HEALTH SERVICES

Table 8: Utilisation of Mental Health Services among respondents ,

Variable	Frequency (n=550)	Percent
Ever used mental health services		
Yes	71	12.9
No	479	87.1
Recent Visit (n=71)		
Yes	31	43.7
No	40	56.3
Most recent visit (n = 31)		
Within last 3 months	3	9.7
3–12 months ago	9	29.0
Over a year ago	19	61.3
Times used in past 12 months (n = 12		
Once	5	41.7
2–5 times	7	58.3
>5 times	0	0.0
Who initiated visit (n = 71		
Self	11	15.5
Referral by Doctor	16	22.5
Friend	20	28.2
Family	24	33.8
Services used* (n = 71)		
Counselling	2	2.8
Psychiatric clinic	8	11.3
Peer-support group	32	45.1
Helpline/Online support	32	45.1
Reasons for seeking help* (n = 71)		
Stress	2	2.8
Anxiety	2	2.8
Depression	5	7.0
Academic pressure	8	11.3
Family/Relationship issues	3	4.2
Sleep problems	1	1.4
Referral by doctor	3	4.2

*multiple choice response

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Only 12.9% of the 550 students had ever used UBTH mental health services. Among users, most last accessed services over a year ago (61.3%), and the most common frequency was 2–5 times in the past year (58.3%). Referral by a doctor was the most common initiator (22.5%), and the

most utilised services were peer-support groups (45.1%) and helpline/online support (45.1%). The main reasons for seeking help were academic pressure (11.3%) and depression (7.0%).

Table 9: Satisfaction with Mental Health Services among Ever-Users (n = 71)

Variable	Very Dissatisfied n (%)	Dissatisfied n (%)	Neutral n (%)	Satisfied n (%)	Very Satisfied n (%)
Staff attitude	0 (0.0)	5 (7.0)	22 (31.0)	34 (47.9)	10 (14.1)
Privacy / confidentiality	1 (1.4)	6 (8.5)	18 (25.4)	37 (52.1)	9 (12.7)
Waiting time	1 (1.4)	6 (8.5)	16 (22.5)	30 (42.3)	18 (25.4)
Service quality	0 (0.0)	6 (8.5)	21 (29.6)	28 (39.4)	16 (22.5)
Follow-up care	0 (0.0)	4 (5.6)	22 (31.0)	26 (36.6)	19 (26.8)

Among those who used the services, satisfaction was moderate to high. Over 60% were satisfied or very satisfied with waiting time (69.2%), service quality (68.4%), and follow-up care (61.7%). However, a minority (8–10%) were dissatisfied, particularly with waiting time (11.5% combined) and staff attitude (8.2% dissatisfied). These satisfaction levels are encouraging but indicate that attention to waiting times and interpersonal aspects of care could further improve user experience.

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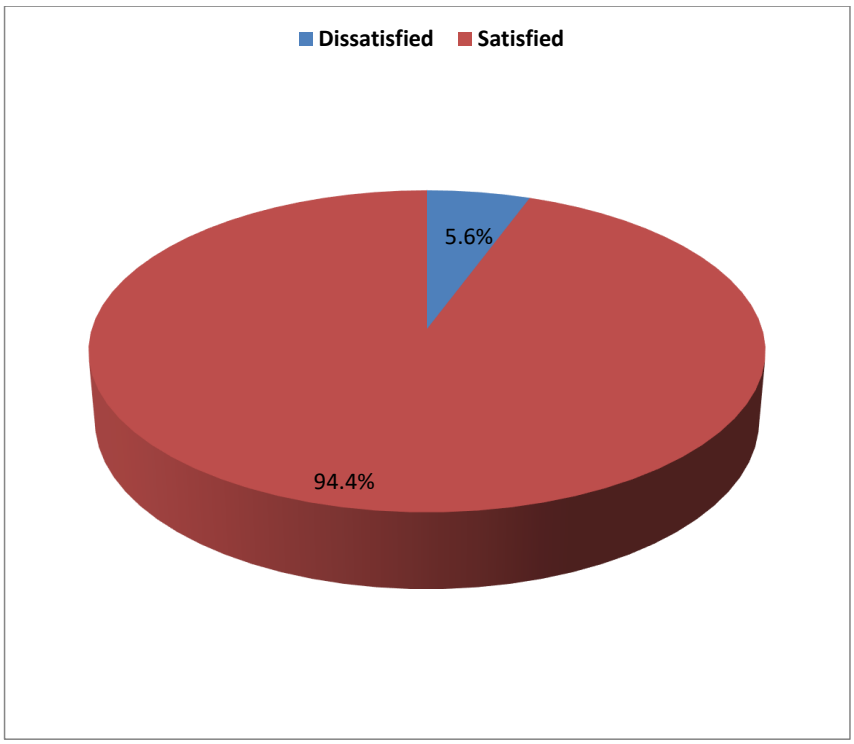

FIGURE 3: Satisfaction toward of mental health services among respondents

The pie chart would show the proportion of ever-users classified as "Satisfied" vs "Dissatisfied" according to the composite satisfaction score. Based on the cut-off of ≥15, a majority of the 71 ever-users with complete data would fall into the "Satisfied" category, reinforcing the item-level findings that most recipients are content with the services.)

SECTION E

BARRIERS TO SEEKING MENTAL HEALTH CARE

Table 10: Barriers to Seeking Mental Health Care among respondents

Barrier statement	Strongly Disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly Agree n (%)
Worry about being judged by others (n=550)	3 (0.5)	16 (2.9)	119 (21.6)	211 (38.4)	201 (36.5)
Fear visit will not be confidential (n=550)	3 (0.5)	18 (3.3)	110 (20.0)	222 (40.4)	197 (35.8)
Prefer to solve problems without professional help (n=550)	12 (2.2)	29 (5.3)	118 (21.5)	196 (35.6)	195 (35.5)
Believe seeking help is a sign of weakness (n=550)	3 (0.4)	28 (5.1)	113 (20.6)	201 (36.6)	205 (37.3)
Do not have enough time to seek help (n=550)	4 (0.7)	23 (4.2)	113 (20.5)	232 (42.2)	178 (32.4)
Concerned about the cost of services (n=550)	5 (0.9)	26 (4.7)	108 (19.6)	199 (36.2)	212 (38.5)
Do not know where to locate the services (n=550)	3 (0.5)	32 (5.8)	109 (19.8)	204 (37.1)	202 (36.7)
Think mental health services may not be effective (n=550)	1 (0.2)	30 (5.5)	99 (18.0)	230 (41.8)	190 (34.5)
Worry lecturers or faculty might find out (n=550)	8 (1.3)	30 (5.5)	99 (18.0)	195 (35.5)	218 (39.7)
Uncomfortable being seen entering the clinic (n=550)	11 (2.0)	23 (4.2)	119 (21.4)	217 (39.6)	180 (32.8)
Religious or cultural beliefs discourage help-seeking (n=550)	6 (0.9)	27 (4.9)	118 (21.5)	196 (35.7)	203 (37.0)
Previously had a bad experience with healthcare services (n=550)	5 (0.9)	44 (8.0)	135 (24.5)	250 (45.5)	116 (21.1)

Respondents strongly endorsed all the listed barriers. The most widely agreed-upon barriers were fear that confidentiality would be breached (79.1% agree/strongly agree), worry about being judged (78.7%), belief that mental health services may not be effective (77.4%), and lack of time (76.3%). Other notable barriers included not knowing where to locate services (75.4%), fear of faculty finding out (76.3%), and religious/cultural beliefs discouraging help-seeking (74.1%). The high level of agreement across stigma-related, attitudinal, and practical barriers demonstrates that multiple, overlapping obstacles deter medical students from seeking the mental health support they need. This explains the gap between awareness/accessibility and actual utilization.

CHAPTER FIVE

DISCUSSION

This study examined the awareness, perceived accessibility, utilization and barriers related to mental health services among medical students at the University of Benin, generating evidence to guide institutional improvements and protect the psychological wellbeing of future physicians. The findings reveal that while a moderate proportion of students possess good general awareness of mental health services and the vast majority rate those services as accessible, actual uptake remains strikingly low, a gap driven by a potent combination of stigma, confidentiality fears, time constraints, cultural beliefs and doubts about the effectiveness of formal care. These patterns mirror the growing body of literature documenting the mental health vulnerabilities of medical trainees globally[1–3] while also uncovering context-specific nuances with important implications for public health and medical education policy in Nigeria.

Slightly less than three-fifths of the students demonstrated good overall awareness of the available mental health services. A more granular examination showed that while a solid majority knew of the existence of general services such as counselling, psychiatric clinics, peer-support groups and helplines, this broad recognition did not consistently extend to the practical details that enable actual help-seeking. Barely more than half of the students knew where the services were physically located, just under three-fifths were aware of the cost of accessing care and a similar proportion understood that medical students were eligible to use the services. This gap between abstract knowledge of a service and actionable knowledge of how to use it is a well-documented phenomenon in the medical education literature. An earlier Nigerian study at Babcock University reported that approximately two-thirds of medical students were aware of the mental health services at their institution, yet almost a third had no awareness at all.[6]

In Uganda, Kihumuro and colleagues found that although over three-quarters of medical students possessed high mental health knowledge, only about one in eight had ever utilized the services, underscoring how knowledge of mental health concepts does not automatically translate into knowledge of service pathways.[5] Similarly, an Australian pilot study noted that while a large majority of students knew of university health services, only a minority felt those services were adequately promoted, and even fewer had actually used them.[9] These consistent findings indicate that mental health awareness initiatives in medical schools often succeed in transmitting surface-level information but fall short of empowering students with the procedural knowledge required to convert awareness into action.

Several factors may account for this discrepancy. The structure of the medical curriculum at the University of Benin, as in many Nigerian schools, concentrates formal orientation and wellness talks in the early preclinical years, which could explain why second-year students in this study had nearly twice the likelihood of good awareness compared to final-year students. As students progress into demanding clinical rotations, structured health promotion contact diminishes, and the hidden curriculum of self-sacrifice may actively discourage attention to personal wellbeing.[2] The finding that students in the middle-income bracket had lower odds of good awareness compared with those in the highest allowance category suggests that economic constraints may limit participation in optional health literacy activities or access to informal information networks. Furthermore, the lower awareness observed among students of Igbo ethnicity relative to their Yoruba counterparts hints at possible disparities in how health information is disseminated and received across different cultural groups, perhaps owing to language preferences, differential integration into campus social structures or variations in health-seeking cultural norms. From a public health standpoint, suboptimal awareness of how to access mental

health care represents a critical failure of the healthcare delivery system to reach a high-risk population. Medical students are exposed to prodigious levels of psychological distress, and evidence from China demonstrates that a substantial proportion experience depression, anxiety and suicidal ideation.[10] If students cannot navigate the pathway to care, the window for early intervention closes, permitting mild distress to escalate into debilitating illness that impairs academic performance, clinical competence and ultimately patient safety.[1] Embedding mental health literacy that includes explicit, repeated instruction on service location, cost, booking procedures and confidentiality guaranteed into every year of the curriculum would constitute a relatively low-cost, high-impact public health measure that could normalise help-seeking and demystify the process of accessing care.

The assessment of perceived accessibility yielded reassuring aggregate findings, with over nine out of ten students holding a positive view. The majority of respondents agreed that the cost of services was affordable, that appointments were easy to obtain and that the clinic environment was private and comfortable. Trust in confidentiality and comfort with the type of providers available were endorsed by roughly three-quarters of the students, and a comparable proportion felt the services were culturally sensitive and student-friendly. However, a closer inspection brought important areas of concern to the fore. Only about half of the students considered the location of the services to be convenient, and a similar proportion felt that the operating hours suited their schedules, with approximately one-fifth actively disagreeing with both statements. These findings mirror the pattern reported in the African systematic review by Wao and colleagues, where instrumental barriers such as distance, cost and lack of time were cited by nearly half of the university students sampled.[12] In Egypt, more than half of the medical students reported that taking time away from studies to seek care was a major impediment.[3] The United

Kingdom service evaluation of a dedicated medical student mental health programme found that flexibility of appointment scheduling and the physical placement of services were decisive in improving uptake.[4] Thus, the present data reinforce the international consensus that logistical accessibility, particularly the alignment of service hours with the unforgiving schedules of medical training and the siting of clinics in places that do not require a conspicuous pilgrimage, remains a formidable obstacle even when services are nominally free and staffed by skilled professionals.

Significant sociodemographic differentials in perceived accessibility were also uncovered. Female students were substantially more likely than their male counterparts to rate the services as accessible, and after accounting for other factors, males had roughly half the odds of reporting good accessibility. This gender gap is consistent with the broader literature documenting that male medical students often exhibit greater self-stigma, lower mental health literacy and more negative attitudes towards psychological help-seeking, which in turn colour their appraisal of how approachable the services are.[2,17] Economic status further modulated perceptions: students whose monthly allowance fell in the middle bracket were significantly less likely to view the services as accessible compared with those in the highest allowance category. Even when services are free or low-cost, the ancillary expenses of transportation and the opportunity cost of time lost from studies may loom larger for students with modest financial resources, creating a subjective barrier that is just as powerful as an objective one.

The most striking difference was ethnic. Students of Benin ethnicity had over seven times the odds of perceiving good accessibility compared to their Yoruba peers. This disparity may stem from the geographic and cultural location of the University of Benin and its teaching hospital in Benin City, the heartland of the Benin people. Indigenous students may feel a stronger sense of

cultural ownership and familiarity with the institution and its services, while students from other ethnic backgrounds may perceive the same services as less welcoming or less aligned with their cultural norms as if those services exist in a social space not entirely their own.

The public health implications of these perceptions of accessibility are considerable. The belief that services are difficult to access or not designed for one's group is a powerful barrier to seeking care. If certain demographic segments consistently perceive mental health services as less accessible, existing inequities in mental health care will persist or worsen.

The male disadvantage in perceived accessibility, if unaddressed, will perpetuate the already higher rates of untreated mental disorders and suicide among men.[10] The economic gradient suggests that financial considerations, even when the direct cost of care is minimal, can inhibit help-seeking among lower-income students, contributing to a cycle in which economic adversity and psychological distress reinforce each other. The pronounced ethnic differential indicates that the physical and cultural placement of services must be deliberately inclusive. Locating some mental health services in neutral, non-clinical spaces on the main campus, diversifying the ethnic composition of mental health staff and incorporating multilingual communication strategies could mitigate the sense that the services belong to one community. Ensuring that mental health care is not only objectively accessible but also perceived as equally accessible by all students, irrespective of gender, income or ethnicity, is a foundational principle of equitable public health practice in educational settings.

The examination of actual service utilization revealed the most troubling finding. Slightly more than one in ten students reported ever having used a mental health service at the University of Benin. This figure aligns closely with the extremely low utilization rates documented in other

Nigerian medical schools: only a negligible fraction of Babcock University medical students were currently receiving mental health support, and the overwhelming majority had never previously used professional services.[6] At Afe Babalola University, two-thirds of undergraduates had never used mental health services, and poor overall utilization was recorded in a clear majority.[16] The Ugandan study reported that despite high mental health knowledge, only about one in eight medical students had ever utilized the services.[5] In Thailand, a cohort study found that a similarly low proportion of medical students had accessed mental health care during their training.[13] A systematic review of university students across multiple countries estimated that formal service utilization among medical students typically ranges between one-fifth and two-fifths, with uptake notably lower in non-Western settings.[15] The African mixed-methods review further reported a pooled formal service utilization proportion of less than one-third.[12] Against this backdrop, the utilization rate observed in the present study is among the lowest recorded, indicating a profound treatment gap that demands urgent institutional attention.

Among the small minority of students who had ever used the services, the pattern of use was episodic and infrequent. The majority had last accessed services more than a year prior to the survey, and among those who had used services within the preceding twelve months, most had done so only two to five times, with no student reporting more than five visits. The most commonly utilized modalities were peer-support groups and helpline or online support, each used by nearly half of the ever-users, whereas face-to-face counselling and psychiatric clinic attendance were far less common. This preference for informal and digital support channels is consistent with the broader literature, which shows that university students in Africa and elsewhere tend to gravitate towards informal sources of help such as friends, family, religious leaders and online platforms, perceiving them as less stigmatising and more easily accessible

than formal clinical services.[12] [15] The most frequently cited reasons for seeking help were academic pressure and depression, followed by anxiety, family or relationship issues and sleep problems. This profile mirrors the well-established stressors of medical education, relentless examinations, clinical responsibilities, sleep deprivation and exposure to human suffering, which have been shown to drive elevated rates of psychological distress in medical students globally.[1,13] Importantly, the initiator of the visit was most often a doctor's referral. This underscores the critical role that clinicians can play in connecting distressed students to care, but it also implies that many students who lack contact with an observant and proactive physician may never be identified, leaving a large reservoir of untreated distress hidden beneath a veneer of academic coping. Satisfaction among those who had used the services was moderately positive, with over three-fifths expressing satisfaction with waiting time, service quality, follow-up care, staff attitude and privacy. However, a minority of users reported dissatisfaction, particularly with waiting times and staff attitude. These pockets of negative experience, though small in absolute terms, are significant because in close-knit student communities a single negative story can circulate rapidly and reinforce the very barriers that deter others from seeking help. The UK service evaluation similarly found that waiting times and persistent confidentiality concerns were among the factors that affected students' willingness to engage with mental health services.[4] When trust is fragile, even minor lapses in service quality can have outsized deterrent effects. The abysmally low utilization, set against the backdrop of moderate awareness and generally positive accessibility perceptions, constitutes the central paradox of this study. It suggests that the obstacles to help-seeking are not primarily a lack of knowledge that services exist, nor a belief that they are unaffordable or staffed by unqualified personnel, but rather a deeper set of attitudinal, cultural and structural barriers that intercept the trajectory from distress to care. From

a public health perspective, this treatment gap represents a failure to deliver on the fundamental promise of available services: that they will be used by those who need them. Medical students who forgo mental health care are at risk of progressive deterioration in their psychological wellbeing, which can lead to burnout, substance misuse, academic failure and, in the worst cases, suicide.[2)3] Furthermore, the untreated mental distress of future physicians has downstream consequences for the health system, as it is associated with reduced empathy, increased medical errors and higher attrition from the profession.[10] Addressing this gap is therefore not merely an issue of student welfare but a matter of health system strengthening and patient safety.

The identification of key barriers preventing medical students from seeking mental health support directly illuminates the reasons behind the low utilization. All twelve barriers probed in the questionnaire were endorsed by a substantial majority of the respondents. The most pervasive barrier, affirmed by approximately four-fifths of the students, was the fear that their visit would not remain confidential. Worry about being judged by others was nearly as common, and the belief that seeking help is a sign of weakness was held by around three-quarters of the sample. These stigma-related barriers align with a large body of international evidence. The scoping review by Berliant and colleagues identified fear of career repercussions and breaches of confidentiality as primary deterrents for medical students, noting that many students feared that seeking help could negatively affect residency applications or employment prospects.[2] The Indian scoping review pinpointed stigmatization as the most prominent barrier, with students reporting fear of judgment from peers and faculty and a pervasive belief that mental health struggles indicate personal weakness.[17] The Egyptian study documented that over half of the medical students preferred to deal with problems on their own, and a similar proportion cited not knowing where to find help as a major barrier.[3] The African systematic review reported that

attitudinal barriers, including a preference for self-reliance and mistrust of the health system, were endorsed by nearly half of the students, while stigma-related concerns were cited by a comparable proportion.[12] In the present study, the high level of agreement with statements such as “I worry lecturers or faculty might find out” and “I am uncomfortable being seen entering the clinic” indicates that the fear of being observed, labelled and potentially penalized is deeply embedded in the student experience. This fear is likely fuelled by the dual role of the teaching hospital as both a place of learning and a site of evaluation, where the boundaries between education, personal health and professional assessment are blurred.

Practical and structural barriers were equally prominent. Three-quarters of the students agreed that they lacked sufficient time to seek help, a finding that directly echoes the concerns raised in the accessibility section regarding operating hours and scheduling. Not knowing where to locate the services was endorsed by a similar proportion, a figure that sits somewhat uneasily beside the awareness data, where just over half reported knowing the location. This discrepancy may reflect the difference between passive knowledge and the kind of actionable knowledge that can be summoned under conditions of stress, or it may indicate that some students were reluctant to admit lack of knowledge in the awareness section but were more candid when the question was framed as a barrier. Concern about the cost of services was affirmed by three-quarters of the students, even though a majority had earlier rated the services as affordable. This apparent contradiction suggests that financial anxiety operates as a psychological barrier independent of objective cost; students who are already stretching limited resources may perceive any additional expense, however small, as prohibitive. Doubts about the effectiveness of mental health services were expressed by over three-quarters of the respondents, a finding that mirrors the Afe Babalola study, where more than half of the students did not believe the services would help.[16] Religious

and cultural beliefs that discourage help-seeking were endorsed by nearly three-quarters of the sample, reflecting the significant role that traditional and faith-based explanatory models of mental illness play in Nigerian society.[12] Finally, two-thirds of the students agreed that a previous bad experience with healthcare services in general made them hesitant to seek mental health care, pointing to a broader erosion of trust in the health system that extends beyond mental health. The overwhelming endorsement of so many barriers, spanning stigma, practicality, financial anxiety, cultural beliefs and systemic distrust, explains why utilization remains so low despite moderate awareness and generally positive accessibility ratings. Students are caught in a web of intersecting obstacles: they fear exposure and judgment, they cannot find the time or the place, they doubt that the services will work, and their cultural and religious frameworks may offer alternative, non-professional coping pathways that feel safer and more congruent with their identity.

Taken together, the findings of this study paint a coherent picture of the state of mental health service engagement among medical students at the University of Benin. General awareness of services is present in a majority of students, but actionable knowledge is patchy. Perceived accessibility is broadly favourable, yet marred by specific logistical deficits and pronounced demographic inequities. Actual utilization is shockingly low, and the principal drivers of this treatment gap are a dense cluster of stigma-related fears, time poverty, lack of procedural knowledge, cultural beliefs and systemic distrust. These findings are not unique to this institution; they resonate with a growing international literature documenting the mental health vulnerabilities of medical students.[2,3,4] However, the study contributes essential context-specific evidence that is necessary for the design of effective, locally appropriate interventions. The sociodemographic disparities in awareness and accessibility perceptions highlight the danger of

assuming that uniform service provision yields uniform access. Male students, students from certain ethnic minority groups and those in the middle-income bracket appear to face disproportionate barriers, and interventions that fail to account for these differences risk exacerbating existing inequities. The public health imperative to act is clear. Medical students are the future custodians of the nation's health, and their own mental wellbeing is a precondition for the delivery of safe, compassionate, high-quality care.[1,3] Untreated mental illness among doctors has been linked to medical errors, reduced patient satisfaction, substance abuse and suicide, and it contributes to the brain drain that plagues many low- and middle-income countries.[10] In Nigeria, where the physician-to-population ratio is already critically low, any factor that impairs the production of healthy, resilient doctors constitutes a direct threat to public health security. The present study provides the evidence base needed to move from reactive, crisis-driven responses to proactive, systems-based prevention and care. It suggests that the University of Benin and similar institutions should implement a package of reforms that includes longitudinal mental health literacy education embedded in the curriculum, the creation of flexible and discreet service delivery points, robust guarantees of confidentiality that are visibly communicated and enforced, peer-led anti-stigma campaigns that involve faculty role models, the elimination of financial barriers, and active engagement with cultural and religious communities to ensure that mental health care is culturally congruent and trusted.[5,12,17] Such a multi-component strategy, if sustained and iteratively refined through ongoing monitoring, holds the potential to close the gap between service availability and service use, thereby safeguarding the mental health of medical students and, by extension, the health of the society they are being trained to serve.

CONCLUSION

This study set out to evaluate the awareness, accessibility, utilization and barriers related to mental health services among medical students at the University of Benin, and the findings reveal a troubling paradox. While a reasonable majority of students are generally aware that services exist and most perceive those services as affordable, confidential and culturally sensitive, actual uptake is shockingly low, with barely one in ten students ever having sought formal care. The disconnect between knowing about services and using them is not driven by a lack of provision or overtly hostile attitudes among providers, but rather by a dense constellation of barriers that includes pervasive fears about confidentiality and being judged, the belief that seeking help signals weakness, crippling time poverty, uncertainty about where to find services, financial anxiety even when direct costs are minimal, doubts about the effectiveness of treatment, and religious and cultural frameworks that discourage professional help-seeking. These barriers are further compounded by significant sociodemographic inequities: male students, students from certain ethnic minority backgrounds and those with modest financial resources experience disproportionately higher hurdles to care.

RECOMMENDATIONS

1. University of Benin Central Administration and Division of Student Affairs

1.1 Institutionalise a mandatory, longitudinal mental health literacy programme that spans the entire medical curriculum, from the first to the final year, with explicit content on service locations, booking procedures, cost structures and the legal guarantees of confidentiality.

1.2 Commission an immediate review of the physical siting and operating hours of mental health services, ensuring that at least one service point is located in a neutral, non-clinical space on the main campus and that evening and weekend appointments are available to accommodate the demanding schedules of medical students.

1.3 Issue and visibly enforce a written institutional policy that confirms, without exception, that seeking mental health care will never be used against a student in academic evaluations, clinical assessments or residency recommendations, thereby directly addressing the fear of career repercussions.

1.4 Fund and sustain a regular, anonymous mental health surveillance system using validated instruments to monitor student wellbeing, service uptake and satisfaction, with findings reported annually to the university senate to guide continuous quality improvement.

1.5 Launch a high-visibility, university-wide anti-stigma campaign that features respected faculty members, alumni and senior students sharing personal narratives of mental health help-seeking, aimed at dismantling the hidden curriculum that equates emotional struggle with incompetence.

2. College of Medical Sciences and School of Medicine, University of Benin

2.1 Embed mental health education as a core, vertically and horizontally integrated theme across all years of the MB;BS programme, ensuring that topics such as burnout, stress management and physician self-care are treated as essential competencies, not peripheral electives.

2.2 Provide mandatory training for all faculty members, clinical instructors and residency supervisors in recognising early signs of psychological distress among students and in making sensitive, non-punitive referrals to mental health services.

2.3 Establish a dedicated, confidential faculty-student mental health liaison role, occupied by a trusted academic staff member who can serve as a low-threshold bridge between distressed students and clinical services.

2.4 Incorporate questions on personal wellbeing and service awareness into routine academic advising sessions, thereby normalising conversations about mental health within the academic support structure.

3. University of Benin Teaching Hospital, Department of Mental Health and University Counselling Centre

3.1 Develop and implement a blended mental health service delivery model that combines face-to-face counselling with tele-mental health options such as chat-based counselling, a dedicated student helpline and asynchronous digital support, given the clear preference for online and peer-mediated modalities revealed by this study.

3.2 Guarantee that all mental health services are provided free of charge to registered medical students and advertise this policy repeatedly and prominently across all student communication channels.

3.3 Reduce waiting times for initial appointments by introducing walk-in crisis slots, group-based psychoeducational sessions and task-sharing with trained peer supporters under professional supervision.

3.4 Redesign the physical environment of the mental health clinic to project a welcoming, youth-friendly and non-clinical atmosphere, and offer the option of remote or off-site sessions for students who express discomfort about being seen entering the facility.

4. University of Benin Medical Students Association and Peer Support Networks

4.1 Coordinate student-led mental health awareness weeks, panel discussions and wellness activities at least once per semester, actively inviting peers who have used mental health services to share their positive experiences in a safe, supported environment.

4.2 Establish a formal peer-support network, trained and supervised by professional counsellors, to provide a confidential first point of contact for students who are not yet ready to approach formal clinical services.

5. Federal Ministry of Health, National Universities Commission and Medical and Dental Council of Nigeria

5.1 Incorporate robust student mental health and wellness indicators into the accreditation standards and institutional audit frameworks for all Nigerian medical schools, thereby incentivising the establishment and maintenance of comprehensive student support services.

5.2 Enact and enforce national legislation or professional regulatory guidelines that explicitly protect the confidentiality of mental health records in academic settings and prohibit discrimination against students who seek psychological or psychiatric care.

5.3 Establish a dedicated funding stream to support the creation and sustained operation of accessible, youth-friendly mental health services on university campuses, with particular attention to underserved and rural institutions.

5.4 Mandate the inclusion of mental health promotion, self-care and help-seeking skills as core competencies within the national medical curriculum framework.

REFERENCES

1. Jafari N, Loghmani A, Montazeri A. Mental health of Medical Students in Different Levels of Training. Int J Prev Med. 2012;3(Suppl 1):S107-12.
2. Berliant M, Rahman N, Mattice C, Bhatt C, Haykal KA. Barriers faced by medical students in seeking mental healthcare: a scoping review [version 1; peer review: 2 approved]. MedEdPublish. 2022;12:70. doi: 10.12688/mep.19115.1
3. Abdel-Hady D, Baklola M, Terra M, El-Gilany AH. Patterns and barriers of mental health service utilization among medical students: a cross-sectional study. Middle East Curr Psychiatry. 2022;29:98. doi: 10.1186/s43045-022-00267-0
4. Jacob R, Li T, Martin Z, Burren A, Watson P, Kant R, et al. Taking care of our future doctors: a service evaluation of a medical student mental health service. BMC Med Educ. 2020;20:172. doi: 10.1186/s12909-020-02075-8
5. Kihumuro RB, Kaggwa MM, Kintu TM, Nakandi RM, Muwanga DR, Muganzi DJ, et al. Knowledge, attitude and perceptions of medical students towards mental health in a university in Uganda. BMC Med Educ. 2022;22(1):730. doi: 10.1186/s12909-022-03774-0
6. Okwudishu O, Okebalama VC, Bamidele EF, Osinaike A, Adefala NO, Olabiyi HO, Nwudele U, Chinatu-Nwankwo O, Fide-Nwoko FU, Opadotun OA, Chigozie UC, Quadri IO. Evaluation of the prevalence and factors affecting the mental health of undergraduate medical students in a Nigerian university: a cross-sectional study. Nigerian Medical Journal. 2026;66(4):1333.

7. Lee JE, Goh ML, Yeo SF. Mental health awareness of secondary schools students: Mediating roles of knowledge on mental health, knowledge on professional help, and attitude towards mental health. Heliyon. 2023;9(3):e14512. doi: 10.1016/j.heliyon.2023.e14512
8. Bore M, Kelly B, Nair B. Potential predictors of psychological distress and well-being in medical students: a cross-sectional pilot study. Adv Med Educ Pract. 2016;7:125-35.
9. Zeng W, Chen R, Wang X, Zhang Q, Deng W. Prevalence of mental health problems among medical students in China: a meta-analysis. Medicine (Baltimore). 2019;98(18):e15337.
10. Osborn T, Town R, Bawendi M, Stopley E, Saunders R, Fonagy P. University students' access to mental health care: a qualitative study of the experiences of mental health services professionals through the lens of candidacy. BMJ Open. 2024;14(Suppl 1):A14.
11. King N, Pickett W, Pankow K, Dimitropoulos G, Cullen E, McNevin S, Patten SB, Duffy A. Access to university mental health services: understanding the student experience. Canadian Journal of Psychiatry. 2024;69(12):841-851.
12. Wao H, Wao MA, Omollo SB, Mutua CK. Availability, accessibility, and utilization of mental health services or support among university students in Africa: a mixed methods systematic review with meta-analysis and meta-synthesis. BMC Psychiatry. 2025;25:1082.
13. Chiddaycha M, Wainipitapong S. Mental health among Thai medical students: Preadmission evaluation and service utilization. Health Sci Rep. 2021;4:e416.
14. Le JT, McAuliffe T, Agrawal H, Cipriano D. Utilization of Mental Health Services by Medical College of Wisconsin Trainees. WMJ. 2024;123(1):39-42.
15. Osborn TG, Li S, Saunders R, Fonagy P. University students' use of mental health services: a systematic review and meta-analysis. International Journal of Mental Health Systems. 2022;16(1):57. doi: 10.1186/s13033-022-00569-0

16. Kukoyi O, Orok E, Oluwafemi F, Oluwadare T, Oni O, Bamitale T, Jaiyesimi B, Ojo T, Eze H. Factors affecting the utilization of mental health services among undergraduate students in a Nigerian University. Heliyon. 2022;8:e11476.
17. Singh Brar S, Maddipatla AS, Gupta S. Scoping review of barriers to mental health service utilization among medical students and residents. Education for Health. 2024 Jan-Mar;37(2):164-77. doi: [Insert DOI if available]
18. University of Benin. Brief History of the University. [Internet]. Uniben.edu. 2024 [cited 2025]. Available from: https://www.uniben.edu/history
19. Wikipedia. University of Benin (Nigeria). [Internet]. 2025 [cited 2025]. Available from: https://en.wikipedia.org/wiki/University_of_Benin_(Nigeria)
20. Oseghale O, Abhulimhen-Iyoha B. Career preferences and factors influencing them among medical students in a Nigerian university. Nigerian Journal of Clinical Practice. 2021;24(12):1845-1851.
21. Oghenemine O. Edo State People: The History, Culture, and Leadership. NaijaPedia; 2025. Available from: https://www.naijapedia.com.ng/edo-state/

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APPENDIX I

INFORMED CONSENT FORM

TITLE OF RESEARCH: Evaluating the Accessibility and Utilization of Mental Health Services Among Medical Students in University of Benin

NAMES AND AFFILIATIONS OF INVESTIGATORS:

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PURPOSE OF RESEARCH:

To examine the awareness, accessibility, utilization, and perceived barriers related to mental health services among medical students at the University of Benin, with a view to providing evidence-based recommendations for improving service delivery and promoting medical students' mental well-being.

PROCEDURES INVOLVED IN THE STUDY:

You will be asked to complete a structured questionnaire that includes questions about your awareness of mental health services, perceptions of accessibility, previous use of services, and any barriers you may have faced in seeking help. The questionnaire will take approximately 10–15 minutes to complete.

CONFIDENTIALITY:

All information you provide will be treated with the utmost confidentiality. No names, matriculation numbers, or other personal identifiers will be collected. Data will be stored securely and accessible only to the research team. Results will be reported in aggregate form only, ensuring that no individual can be identified.

FINANCIAL COMPENSATION:

There will be no monetary compensation for participation in this study.

VOLUNTARY PARTICIPATION:

Your participation in this study is entirely voluntary. You may decline to answer any question and may withdraw from the study at any time without giving a reason. Your decision to participate or withdraw will not affect your academic standing or any services to which you are entitled.

RISK: No physical or psychological risks are anticipated beyond those of everyday life. If any question causes you discomfort, you may skip it or stop the questionnaire.

BENEFIT: While you may not directly benefit from this study, your participation will help improve understanding of mental health service needs among medical students and inform future interventions to enhance support services.

FINANCIAL SPONSORSHIP:

This study is sponsored by the principal investigator.

CONTACT INFORMATION:

If you have any questions or concerns about the study, please contact:

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PMB 1111, Benin City, Nigeria.

Email: ogonnastephen0@gmail.com

Phone: +2349064585076

or

Ethics and Research Committee

University of Benin Teaching Hospital

Phone: +234 706 333 1337

CONSENT STATEMENT

I have read the above information (or it has been read and explained to me). I understand the purpose of the study, the procedures involved, and my rights as a participant. I voluntarily agree to participate in this study.

Participant's Signature: _____ Date: _____

Investigator's Signature: _____ Date: _____

APPENDIX II

QUESTIONNAIRE DESIGN

INFORMED CONSENT

You are invited to participate in a research study assessing the awareness, accessibility, utilization, and barriers to mental health services among medical students in UBTH. Participation is voluntary. You may skip any question or withdraw at any time without penalty. Your responses are anonymous and confidential. No names, matric numbers, or identifying details will be collected. There are no risks beyond normal daily life. Your answers will help improve mental health support for students. By proceeding, you agree voluntarily to participate.

SECTION A: SOCIO-DEMOGRAPHIC DATA

Please tick (✔) or write your response.

1. Age: _____ years
2. Sex: ☐ Male ☐ Female
3. Marital Status: ☐ Single ☐ Married ☐ Divorced ☐ Prefer not to say
4. Year of Study: ☐ Year 1 ☐ Year 2 ☐ Year 3 ☐ Year 4 ☐ Year 5 ☐ Year 6
5. Type of Accommodation: ☐ Hostel ☐ Off-campus ☐ With family ☐ Other: _____
6. Monthly Allowance/Financial Support: ☐ < ₦20,000 ☐ ₦20,000–39,000 ☐ ₦40,000–59,000 ☐ ≥ ₦60,000

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7. Ethnic group: ☐ Benin ☐ Esan ☐ Igbo ☐ Yoruba ☐ Hausa ☐ Etsako ☐ Owan ☐ Others_____

8. Religious Affiliation: ☐ Christianity ☐ Islam ☐ Traditional ☐ Other

SECTION C: AWARENESS OF MENTAL HEALTH SERVICES

9. Are you aware that UBTH provides mental health services? ☐ Yes ☐ No

Have you heard of the following mental health services at UBTH?

10. Counseling / psychological services — ☐ Yes ☐ No

11. Psychiatric/mental health clinic — ☐ Yes ☐ No

12. Peer-support groups — ☐ Yes ☐ No

13. Mental health helpline / digital support — ☐ Yes ☐ No

14. Are you aware of where mental health services are located in UBTH? ☐ Yes ☐ No

15. Do you know how to book an appointment for mental health care? ☐ Yes ☐ No

16. Are you aware of the cost of accessing these services? ☐ Yes ☐ No

17. Are you aware that mental health services are confidential? ☐ Yes ☐ No

18. Do you know who provides mental health services (e.g., psychologist, psychiatrist, counselor) ☐ Yes ☐ No

19. Do you know whether medical students are eligible to use these services? ☐ Yes ☐ No

SECTION D: ACCESSIBILITY OF MENTAL HEALTH SERVICES

Instructions: Tick the option that best describes your response.

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
20. The location of the mental health services is convenient for me.					
21. The operating hours are suitable for my schedule.					
22. The cost of mental health services is affordable.					
23. Appointments/referrals are easy to obtain.					
24. The environment of the clinic is private and comfortable.					
25. I trust that my confidentiality will be maintained.					
26. There are enough mental health staff to attend to students.					
27. I feel comfortable with the type of providers available (ender/professional).					

28. The distance/time required to access the clinic is reasonable.					
29. The services offered are culturally sensitive and student-friendly.					

SECTION E: UTILIZATION OF MENTAL HEALTH SERVICES

30. Have you ever used mental health services at UBTH? ☐ Yes ☐ No. If YES, answer questions 31–35. If NO, skip to question 36.

31. Which services have you used? (Tick all that apply)

☐ Counseling ☐ Psychiatric clinic ☐ Peer-support group ☐ Helpline/online support ☐ Other: _____

32. When was your most recent visit? ☐ Within last 3 months ☐ 3–12 months ago ☐ Over a year ago

33. How many times have you used mental health services in the past 12 months? ☐ Once ☐ 2–5 times ☐ >5 times

34. Who initiated your visit? ☐ Self ☐ Friend ☐ Family ☐ Lecturer/clinical instructor ☐ Referral by doctor

35. What were your reasons for seeking help? (Tick all that apply) ☐ Stress ☐ Anxiety ☐ Depression ☐ Academic pressure ☐ Relationship/family issues ☐ Sleep problems ☐ Other: _____

Rate your satisfaction with the following: 1 = Very Dissatisfied 5 = Very Satisfied

Statement	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
36. Staff attitude					
37. Privacy/confidentiality					
38. Waiting time					
39. Service quality					
40. Follow-up care					

If NO (you have never used services), answer this question:

41. What are your main reasons for NOT using mental health services? (multiple choice response) ☐ Did not know services existed ☐ Do not know how to access ☐ No time ☐ Fear of being judged ☐ Cost ☐ Prefer handling issues myself ☐ Fear faculty/school will find out ☐ Belief services are not effective ☐ Religious/cultural beliefs ☐ Fear of being seen entering clinic ☐ Prefer online/self-help solutions ☐ Other: _____

SECTION F: BARRIERS TO SEEKING MENTAL HEALTH CARE

1 = Strongly Disagree 5 = Strongly Agree

Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
42. I worry about being judged by					

others.					
43. I fear my visit will not be confidential.					
44. I prefer to solve problems without professional help.					
45. I believe seeking help is a sign of weakness.					
46. I do not have enough time to seek help.					
47. I am concerned about the cost of services.					
48. I do not know where to locate the services.					
49. I think mental health services may not be effective.					
50. I worry lecturers or faculty might find out.					
51. I am uncomfortable being seen entering the clinic.					

52. My religious or cultural beliefs discourage help-seeking.					
53. I previously had a bad experience with healthcare services					

APPENDIX III

Level	Population (N_h)	Proportion (N_h / N)	Sample Size (n_h)
100	231	0.190	105
200	192	0.158	87
300	150	0.124	68
400	172	0.142	78
500	167	0.138	76
600	301	0.248	136
Total	**1,213**	**1.000**	**550**