

Original Article

Awareness and Utilization of Mental Health Services Among Undergraduate Students at Ahmadu Bello University, Zaria, Northwest Nigeria

¹Abdullahi AY*, ²Gobir AA, ¹Audu IA, ³Muhammad A, ³Summayyah MB, ⁴Yakasai BA, ⁵Mustapha IG

¹ Department of Psychiatry, Ahmadu Bello University, Zaria Nigeria. ²Department of Community Medicine, Ahmadu Bello University, Zaria Nigeria. ³Department of Psychiatry, Ahmadu Bello University Teaching Hospital, Zaria Nigeria. ⁴Department of Psychiatry, Kaduna State University, Kaduna Nigeria. ⁵Department of Psychiatry, Aminu Kano Teaching Hospital, Kano Nigeria.

Article History

Submitted: 15/05/2025; Accepted: 20/05/2025; Published: 24/05/2025

*Correspondence: Abdullahi AY.

Email: ayabdullahi@abu.edu.ng

ABSTRACT

Mental health disorders are a leading cause of disability globally, yet service utilization remains low, especially in sub-Saharan Africa. This study assessed awareness and utilization of mental health services among undergraduate students at Ahmadu Bello University (ABU), Zaria, Nigeria. A cross-sectional study was conducted among 300 undergraduate students selected via multistage sampling. Data were collected using structured questionnaires and analyzed using SPSS version 27. Chi-square and regression analyses identified predictors of service utilization. Most respondents (97.3%, n = 292) were aware of mental health, and 84% (n = 252) knew about mental health services, but only 54.8% (n = 138) were aware of on-campus services. Utilization was low (11%, n = 33), with orthodox services being the most used (81.8%, n = 27). Key predictors of utilization included a history of mental illness (OR = 0.156, p = 0.009) and ongoing mental illness (OR = 0.046, p < 0.001). Stigma (39%, n = 117), lack of knowledge (32%, n = 96), and financial constraints (28%, n = 84) were major barriers. Despite high awareness, utilization of mental health services remains low among students. Targeted interventions to reduce stigma, improve accessibility, and integrate mental health education into curricula are recommended.

Keywords: Awareness, Mental Health, Nigeria, Undergraduate Students, Utilization.

INTRODUCTION

Mental health disorders constitute the major causes of disabilities worldwide; accounting for 37% of all healthy life years lost through disease.¹ Mental illness is a disabling, chronic condition that poses numerous challenges in its management and as risk factors for other health problems.² It extols significant costs to the patient in terms of personal suffering, to the families as a result of the shift of burden of care and life-time lost productivity, and on the society at large.^{3,4} In Nigeria less than 15% of people with severe mental illness access mental health care services.⁵ As with other countries in sub-

Saharan Africa, mental health care is neglected, and neuropsychiatric services receive low priority in national budget allocations,⁶ with only around 1% of the health budget spent on mental health.⁷ whereas the proportion of the burden of disease attributable to mental illness is around 8% in the same region.⁸ These funds are also spent inefficiently as; mental health services in Nigeria consist mainly of large government psychiatric hospitals. There are eight Federal Neuropsychiatric Hospitals and a similar number of university teaching hospital psychiatric departments, for a population of over 200 million people. Nigeria has around one psychiatrist per 1

Article Access

Website: www.wjmb.org.ng

 10.5281/zenodo.15569473

How to cite this article

Abdullahi AY, Gobir AA, Audu IA, Muhammad A, Summayyah MB, Yakasai BA, Mustapha IG. Awareness and Utilization of Mental Health Services Among Undergraduate Students at Ahmadu Bello University, Zaria, Northwest Nigeria. *West J Med & Biomed Sci.* 2025;6(2):75-83. 10.5281/zenodo.15569473.

million population and four psychiatric nurses per 100,000 people.⁹

The country is however starting to develop community mental health services, which have been shown to improve access to care and clinical outcomes.^{10,11,12} Theoretical models related to stigma imply that reduction in florid symptoms, that lead others to label a person as having a mental illness and hence stereotype them as being unpredictable and dangerous, would reduce their experience of stigma and discrimination.¹³ Despite recent efforts to promote more accessible services, low levels of knowledge about effective treatment of mental disorders means that even where it is available, a very small proportion of people receive appropriate care.¹⁴ Interventions to increase service use are therefore an essential component of the health systems approach to reducing the treatment gap for mental illness. This is because the health of any individual is dependent on the inter-relationship between the physical and the mental states.¹⁵

Many issues of mental health are under-emphasized leaving it surrounded by mistaken beliefs and fallacies, especially in a developing country like Nigeria. To society's detriment, these misconceptions bring utilization of mental health services to a near inexistence. Approximately 55 million Nigerians live with one form of mental disorder or the other according to the WHO-AIMS Report.¹⁵ Majority of these individuals with mental health issues are stigmatized and virtually unattended to. As a result, individuals and families try to conceal illness to avoid stigma and discrimination, resulting in increase in the number of poor mental health. Prevailing misconceptions and stigma adversely affect mental health services utilization encouraging people who are either totally unaware of existence of services or are unwilling to seek out these services. This study seeks to expose these wrong perceptions, provide indices for refuting them as well as improve awareness and utilization of mental health services among tertiary students in Kaduna state, Northwestern, Nigeria.

This study aimed to:

Assess awareness of mental health services among

Ahmadu Bello University undergraduate students.

Evaluate utilization rates and determinants among the respondents.

Identify barriers to service uptake among the respondents.

MATERIALS AND METHODS

Study Participants

The study was conducted among Ahmadu Bello University's undergraduates aged ≥ 18 years who had spent at least one academic session at the university. This university is a major federal university and the largest in Nigeria in terms of its sheer size and student population. It is situated in Zaria, Northwestern Nigeria.

Study Design

A descriptive cross-sectional study was conducted.

Sample size determination

A sample size of 300 was calculated using Cochran's formula. Multistage sampling was employed to select participants from six randomly selected faculties.

Stage 1: This stage employed simple random technique through balloting in selecting faculties from the total of 18 faculties. A total of 6 faculties were randomly selected.

Stage 2: This involved determination of study participants (200 level and above) for each faculty using proportionate sampling method. Here, the sampling fraction was calculated (i.e. Sample Size [f] / Population of ≥ 200 level students [N], which gave $300/40,000 = 0.0075$). Only students at 200 levels and above were included because they had spent at least one academic session in the university, ensuring familiarity with campus mental health services.

The sample size ($n=300$) was allocated proportionally to each of the 6 randomly selected faculties based on their total population of students at 200 level and above. The sampling fraction (0.0075) was applied to determine the number of students sampled per faculty. For example, if a faculty had 8,000 eligible students, 60 students were selected ($8,000 \times 0.0075$). Students were then

randomly selected from each faculty's list using computer-generated random numbers (using Stat Trek Random Number Generator).

Below is the summary of the calculated sample sizes from the chosen faculties

Faculty	Total Students (≥ 200 L)	Sample Allocated ($0.0075 \times \text{Total}$)
Engineering	8,000	60
Education	6,000	45
Law	4,000	30
Arts	5,000	38
Social Sciences	7,000	53
Agriculture	10,000	75
Total	40,000	301 (Adjust to 300)

Stage 3: This involved selection of the respondents. This was done by first obtaining the lists of ≥ 200 level students in all the selected faculties from the respective faculty deans. These eligible students from each of the selected faculties were assigned numbers based on their registration numbers. Students were then randomly selected from each faculty's list using computer-generated random numbers (using Stat Trek Random Number Generator).

Instrument for the Study

A structured questionnaire assessed sociodemographics, awareness, utilization, and barriers.

Procedure

This descriptive cross-sectional study was designed to assess the awareness of mental health services, evaluate utilization rates determinants, and identify the barriers to mental health service uptake among undergraduate students of Ahmadu Bello University, Zaria, Nigeria.

The study was conducted over a period of three months, starting from 3rd January, 2024, though to April 6, 2024. Based on the multistage sampling, eligible participants who gave consent were enrolled and administered the study instrument.

Ethical Consideration

The study procedures were reviewed and approved by the Health Research Ethic Committee of Ahmadu Bello University Teaching Hospital, Shika-Zaria. Informed consent was obtained from all participants prior to their inclusion in the study. Confidentiality and anonymity of participants was maintained throughout the research process.

Statistical Analyses

The statistical analyses were conducted using IBM Statistical Product and Services Solutions (IBM-SPSS) version 29. Initial analyses involved descriptive statistics to summarize participants' background characteristics, including percentages, means, and measures of variance, with frequency tables. Student t and chi-square tests were used for statistics of continuous and categorical data respectively, while multiple regression analysis was done for significant variables to eliminate confounders and to determine the most important statistical predictors. The test of significance was set at $p < 0.05$ two-tailed and level of confidence set at 95% confidence interval.

RESULTS

Table 1 presents results of the sociodemographics of the respondents. The study population comprised predominantly young adults, with 80.3% ($n = 241$) aged 18–25 years, reflecting the typical undergraduate age range. A slight majority were male (55.3%, $n = 166$), and most identified as Muslim (78.7%, $n = 236$), consistent with the religious demographics of Northwestern Nigeria. The majority were single (94.3%, $n = 283$), and the sample represented diverse academic disciplines, with the highest proportions from the faculties of Engineering (21.7%, $n = 65$), Education (21.7%, $n = 65$), and Law (18%, $n = 54$).

Table 2 presents the results of awareness of mental health and services among the respondents. Awareness of mental health concepts was nearly universal (97.3%, $n = 292$), and 84% ($n = 252$) of respondents knew about mental health services. However, only 54.8% ($n = 138$) of those aware of services knew about their availability within the university.

The results of utilization of mental health services

among the respondents are shown in table 3. Only 11% (n = 33) of respondents had ever used mental health services, with 81.8% of the 11% (n = 27) opting for orthodox services. Utilization was evenly split between university clinics (36.4%, n = 12) and external clinics (36.4%, n = 12).

Factors associated with mental health services utilization are presented in tables 3a and 3b. Key factors associated with mental health services utilization included: Age, with higher usage among 26–30-year-olds (33.3%, 11; *p*=0.028), gender, with females more likely to use services (63.6%, 21; *p*=0.020), mental health history and ongoing mental illness showed strong associations with personal history (*p*<0.001) and ongoing illness (*p*<0.001), level of study also showed some significance with students at higher levels (300 and 400 levels) reporting greater utilization (p=0.044). Awareness of mental health services did also show significant influence on students' utilization of mental health services (p=0.040).

Predictors of mental health services utilization are presented in table 4. On subjecting the variables that had previously shown statistical significance on Chi Square analysis, age did not show statistical significance in both crude and adjusted models (p > 0.05). This indicates that age does not significantly influence the likelihood of using mental health services among students. On the regression analysis, female students were more likely than males to use mental health services (Crude OR = 2.385, p = 0.023), however, after adjustment, this association became non-significant (adjusted OR = 1.859, p = 0.223). This indicates that gender may influence service utilization, but other variables attenuate this effect. The analysis also indicated that students without a family history had significantly lower odds in the crude model (OR = 0.338, p = 0.013), but after adjustment, this effect was no longer significant (p = 0.212), indicating that family history might initially appear important but is confounded by other variables.

However, the results of the analysis indicated that personal history of mental health illness is a very strong predictor of mental health service utilization with crude OR = 0.048 (p < 0.001) and adjusted OR =

0.156 (p = 0.009), signifying that students with no history of mental illness are much less likely to utilize services. Also, the analysis found ongoing illness as a strong and significant predictor of mental health service utilization with crude OR = 0.02 (p < 0.001) and adjusted OR = 0.046 (p < 0.001). Therefore having a current mental health issue significantly increases the likelihood of using services. For awareness of mental health services, the crude p-value was borderline (p = 0.062), and adjusted p = 0.146, which was not significant. Therefore simply hearing about mental health services did not significantly affect use after adjusting for other factors.

From the analysis above, the most important predictors of mental health service utilization were history of mental illness and ongoing mental illness. Gender and family history show some initial associations but are not significant when controlling for other factors. The regression analysis confirmed these findings, with the model explaining 49% of variance in utilization behaviour ($\chi^2=84.383$, *p*<0.001, $R^2 = 0.490$). Identified barriers included stigma (39%, n = 117), lack of knowledge about mental health and services (32%, n = 96), and financial constraints (28%, n = 84). (Table 4).

Variable	Frequency (f)	Percent (%)
Age of respondent (in years)		
18 - 25	241	80.3
26 - 30	51	17
31 - 35	8	2.7
Gender of respondent		
Female	134	44.7
Male	166	55.3
Religion of respondent		
Christianity	63	21
Islam	236	78.7
None	1	0.3
Tribe of respondent		
Hausa	127	42.3
Igbo	6	2
Others	119	39.7
Yoruba	48	16
Marital Status		
Married	17	5.7
Single	283	94.3
Faculty of Respondent		
Arts	43	14.3
Social Sciences	37	12.3
Engineering	65	21.7
Law	54	18
Education	65	21.7
Agriculture	36	12
Level of respondent		
200 level	108	36
300 level	90	30
400 level	59	19.7
Others	43	14.3

Table 2: Awareness of mental health and mental health services

Variable	Frequency (f)	Percent (%)
Awareness of what is mental health?		
Aware	292	97.3
Not Aware	8	2.7
Awareness of mental health services?		
No	48	16.0
Yes	252	84.0
Awareness of the existence of mental health services in ABU (n=252)		
No	114	45.2
Yes	138	54.8

Table 3a: Factors associated with the utilization of mental health services

Variable	Utilized Mental Health Services f(%)		Test Statistics	p-value
	Yes(n=33)	No (n=267)		
Age in years				
18 - 25	21(63.6)	220(82.4)	$\chi^2=7.124$	0.028*
26 - 30	11(33.3)	40(15)		
31 - 35	1(3.1)	7(2.6)		
Gender				
Female	21(63.6)	113(42.3)	$\chi^2=5.399$	0.020*
Male	12(36.4)	154(57.7)		
Religion				
Christianity	3(9.1)	60(22.5)	FE=3.913	0.208
Islam	30(90.9)	206(77.2)		
None	0(0)	1(0.3)		
Tribe				
Hausa	12(36.4)	115(43.1)	$\chi^2=1.797$	0.616
Igbo	0(0)	6(2.2)		
Others	16(48.5)	103(38.6)		
Yoruba	5(15.1)	43(16.1)		
Marital Status				
Married	2(6.1)	15(5.6)	FE=0.011	1.000
Single	31(93.9)	252(94.4)		
Faculty				
Arts	1(3.0)	18(6.7)	FE=5.500	0.285
Social Sciences	2(6.1)	11(4.1)		
Engineering	3(9.1)	62(23.2)		
Law	1(3.0)	5(1.9)		
Education	25(75.8)	160(59.9)		
Agriculture	1(3.0)	11(4.2)		
Level				
200 level	5(15.2)	103(38.6)	$\chi^2=9.770$	0.044*
300 level	13(39.4)	70(26.2)		
400 level	7(21.2)	52(19.5)		
Others	8(24.2)	35(13.1)		

FE=Fisher's Exact Test, χ^2 = Chi-Square test, *Statistically Significant

Table 3b: Factors associated with the utilization of mental health services

Variables	Utilized Mental Health Services f(%)		Test Statistics	p-value
	Yes(n=33)	No (n=267)		
History of Mental Illness				
No	20(60.6)	259(97)	FE=59.768	<0.001*
Yes	13(39.4)	8(3)		
Ongoing Mental Illness				
No	14(42.4)	260(97.4)	FE=112.053	<0.001*
Yes	19(57.6)	7(2.6)		
Awareness of What is Mental Health				
Aware	32(97)	260(97.4)	FE=0.019	1.000
Not Aware	1(3)	7(2.6)		
Aware of Mental Health Services				
No	1(3)	47(17.6)	$\chi^2=4.641$	0.040*
Yes	32(97)	220(82.4)		
Perceives Mental Health Services are Important				
No	0(0)	5(1.9)	FE=0.628	1.000
Yes	33(100)	262(98.1)		
Would Consider Using Orthodox Mental Health Services if Needed				
No	5(15.2)	67(25.1)	$\chi^2=1.592$	0.280
Yes	28(84.8)	200(74.9)		
C3_Would Encourage Others Having Mental Health Illness to Seek Professional Orthodox Care				
No	2(6.1)	20(7.5)	FE=0.088	1.000
Yes	31(93.9)	247(92.5)		

FE=Fisher's Exact Test, χ^2 = Chi-Square test, *Statistically Significant

Table 4: Predictors of the Utilization of Mental Health Services

Variable	Crude			Adjusted		
	OR	95% CI	p-value	OR	95% CI	p-value
Age in years						
18 - 25	0.668	0.078 - 5.694	0.712	0.48	0.028 - 8.239	0.613
26 - 30	1.925	0.214 - 17.355	0.559	1.837	0.101 - 33.345	0.681
31 - 35	1			1		
Gender						
Male	1			1		
Female	2.385	1.127 - 5.047	0.023*	1.859	0.686 - 5.038	0.223
Family history of mental health illness						
Yes	1			1		
No	0.338	0.144 - 0.794	0.013*	0.465	0.14 - 1.548	0.212
History of mental health illness						
Yes	1					
No	0.048	0.018 - 0.128	<0.001*	0.156	0.038 - 0.635	0.009*
Ongoing mental health illness						
Yes	1			1		
No	0.02	0.007 - 0.055	<0.001*	0.046	0.014 - 0.154	<0.001*
Ever heard of mental health services						
Yes	1			1		
No	0.146	0.019 - 1.097	0.062	0.168	0.015 - 1.862	0.146

Model summary $\chi^2=84.383$, $p<0.001$, $R^2=0.490$

DISCUSSION

This study identified a history of mental illness and current mental illness as the most significant predictors of mental health service utilization among participants. Furthermore, the findings suggest that educational campaigns alone (i.e. awareness) are insufficient to improve mental health service utilization without also addressing stigma, accessibility, and perceived need.

The high awareness (97.3%, $n = 292$) contrasts with low utilization (11%, $n = 33$), consistent with studies in Nigeria and South Africa.^{5,6} Stigma and financial barriers were critical deterrents, aligning with global findings.⁷ Regression analysis highlighted key predictors of mental health service utilization and included personal history of mental illness and ongoing mental illness. Gender and family history did show some initial associations but were not significant when controlling for other factors. This study also indicates that, educational campaigns alone (i.e., awareness) may not be sufficient without addressing stigma, accessibility, and perceived need. While age and academic level did show significant association with mental health service utilization at the level of Chi-Square (χ^2) analysis, they showed no significance on regression analysis.

However, Mackenzie *et al.* in 2006, identified demographic and psychosocial variables including age, gender, academic level, mental health awareness, history of mental illness, and ongoing mental illness as predictors of mental health service utilization.¹⁶

Masilela *et al.* in 2017, also identified age, gender, income, level of education, and awareness of mental health as possible predictors or determinants of mental health service utilization.¹⁷ Similarly, Aluh *et al.* in 2018, identified age, gender, level of education, income and awareness of mental health as determinants of mental health service utilization.¹⁸

A similar study by Mmadu *et al.* in 2017 identified mental health awareness as a significant determinant of mental health service utilization and demonstrated that higher mental health literacy correlates with increased service use.¹⁹ The findings in this study however indicates that educational campaigns alone

(i.e., awareness) may not be sufficient without addressing stigma, accessibility, and perceived need.

The above observed differences in the predictors of mental health service utilization between this current study and the previous studies may be due to the fact that, the cited previous studies stopped at the level of Chi-Square (χ^2) analysis, without subjecting significant variables to regression analysis in order to eliminate confounding variables as was done in this current study.

The identified barriers—stigma, high costs, and limited availability—reflect patterns observed in both local and international contexts. Studies such as those by Musakwa *et al.* in 2021 and Kukoyi *et al.* in 2022 similarly emphasized stigma and financial constraints as critical impediments. The relatively lower attribution of mental illnesses to spiritual causes (3.7%) suggests some shift in cultural attitudes, though traditional beliefs remain a factor.^{20,21}

CONCLUSION

While awareness of mental health is high among ABU students, utilization remains low due to stigma, cost, and accessibility issues. Policy interventions should prioritize student mental health through education, service expansion, and stigma reduction.

Recommendations

Students with a history or current mental illness are more likely to use mental health services, highlighting the importance of routine screenings during registration or health checks. Training staff to recognize early signs and creating peer referral networks can also aid early intervention. While awareness alone may not be enough, integrating mental health education into the curriculum and running campaigns focused on reducing stigma and promoting help-seeking could shift long-term attitudes. Sharing positive student experiences can also be beneficial.

Since current mental health struggles drive service use, on-campus services need expansion with more trained providers, confidential walk-in options, and

telehealth for broader access. Interestingly, female students initially used services more, suggesting a need to address potential barriers or stigma among male students through tailored outreach, male peer advocates, and inclusive messaging. Family history also plays a role, indicating the value of family-focused education and collaboration with parent networks to destigmatize mental health.

Finally, continuous monitoring and evaluation of service use and outcomes are crucial to identify gaps. Qualitative research and student feedback should inform policy and service development, as the current understanding accounts for just under half of the factors influencing behaviour.

Limitations

The cross-sectional design limits causal inferences, and findings may not generalize to non-university populations.

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