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Research article

Factors affecting the utilization of mental health services among undergraduate students in a Nigerian University

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ABSTRACT

Under-utilization of mental health services among university students is a major public health concern. This study assessed the factors affecting the utilization of mental health services among undergraduate students.

This research was a cross-sectional survey carried out among students of Afe Babalola University, Ado-Ekiti, Nigeria. A semi-structured self-administered questionnaire was used for data collection and multi-stage sampling technique was used in sampling the participants. Utilization, attitude, and health seeking behavior were categorized into good (≥50% score), and poor (<50% score), while social support was categorized into poor (8–18), moderate (19–25), and strong (26–32). Chi-square test and Logistic regression were used to assess the relationship between the categorical variables.

450 students enrolled in this study of which 52.4% were females and mean age of 19.40 ± 1.65 years. Most students showed a good attitude (87.5%), health seeking behavior (67.8%), and poor social support (69.4%) towards mental health services. There was an association between source of information ($p = 0.005$), health seeking behavior ($p = 0.001$) and utilization of mental health services. There was also a higher likelihood for students of female gender (OR: 1.621 (1.072–2.452)) and being aged above 20 years (OR: 1.331 (0.822–2.153)) to have good utilization of mental health services.

Majority of the students showed good attitude and health seeking behavior towards mental health services but there was poor utilization as well as poor to moderate social support towards mental health services. Gender, age, attitude, source of information as well as health seeking behavior are important factors that can affect the utilization of mental health services among undergraduate students. Interventions targeted towards these factors should be done to ultimately improve utilization of mental health services among undergraduate students.

1. Introduction

The prevalence of mental health problems or diseases has steadily increased in recent years, with the majority of mental health problems occurring between the ages of 15 and 24 years (Basta et al., 2022; World Health Organization, 2017). Studies on mental health problems in young people have indicated that they are common among undergraduate students, with one-third of them exhibiting substantial symptoms of a mental health condition such as depression, generalized anxiety disorder, or suicidality (Oswalt et al., 2020). Women, in particular, are more likely than men to admit to having a depressive condition (Panchal et al., 2020).

Major depression is the world's second-largest cause of disease (Global Burden of Disease Study 2013 Collaborators, 2015), and mental illness is anticipated to overtake physical illness as the primary cause of death by 2029 (Alzheimer's Association, 2013). Furthermore, one million individuals commit suicide each year, with another 10 to 20 million attempting it (Bomyea et al., 2013). According to a report, the global cost of mental illness was approximately $2.5 trillion in 2010, with a projected increase to more than $6 trillion by 2030 (Gustavsson et al., 2011). Nearly half of the world's population suffers from mental illness, which affects their self-esteem, relationships, and ability to function in daily life (Storrie et al., 2010).

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One of the reasons for the high prevalence of mental health difficulties is that a population's source of mental health-related information is inadequate. In fact, according to a survey conducted in the United States, less than 27% of students with mental health disorders requiring consultation sought treatment from formal sources (Dyrbye et al., 2015). Similarly, in a cohort study among Finland undergraduate students, about one-fifth of those with depression sought professional care (Fröjd et al., 2007). In a subsequent research, less than half of the students said they had received treatment for their mental illness (Zivin et al., 2009). Furthermore, individuals with high levels of depression (Martínez-Hernáez et al., 2014), suicidal ideation (Deane et al., 2001), and a history of self-harm (Cotter et al., 2015) are more likely to seek help than those with less significant symptoms. In Africa, the situation is even worse, as evidenced by a study of Nigerian students, in which just 1.5 percent of students considered obtaining professional help as a suggested course of action for depression (Aluh et al., 2018). Although health professionals are vital sources of this information, due to their scarcity and generally low accessibility, other sources are crucial in teaching the public about mental health issues such as the internet, self-help books, pamphlets, telephone hotlines, newspapers, television, and radio. Most young persons with mental disorders choose not to get help from health professionals (Burgess et al., 2009). Friends and families are the most common sources of assistance for students. Furthermore, it has been documented that despite the ill effects of In mental diseases such as depression, anxiety, bipolar disorder, schizophrenia, psychosis, eating disorders, mood disorders, and psychosis, the majority of students do not seek treatment or prefer informal sources of aid to professional sources of help (Ogorchukwu et al., 2016). This could lead to access to misleading information and further worsen mental health problems.

Inadequate use of mental health services is a significant problem in the control and management of mental illnesses. According to a study conducted in India, approximately 50% of people with mental illness in developed countries and 85% of people in underdeveloped countries do not obtain therapy (World Health Organization, 2008). According to studies, the lifetime prevalence of mental disorders in Nigeria ranges from 12.1 to 26.2 percent (Wang et al., 2007), and only 20% of people with serious common mental disorders in Nigeria received treatment in the previous 12 months, with therapy being largely inadequate (Abdulmalik et al., 2013). Ultimately, the underutilization of mental health services can cause certain consequences, such as committing crimes and other vices (Ghiasi et al., 2022).

In general, the use of health services depends on factors such as predisposing (demographics (age (Wang et al., 2019), sex (Jones et al., 2019), education (Li et al., 2016)), and enabling (employment (Fischbein and Bonfine, 2019) and social support factors (Tay et al., 2018)). The likelihood that a person would use healthcare services is reflected in predisposing factors, while enabling factors are resources that may make it easier for a person to access healthcare. Furthermore, positive health-seeking behavior in patients can lead to better utilization of health services, including patients with mental health problems (Bhattarai et al., 2015). Certain barriers contribute to poor utilization of mental health services, such as fear of stigma and embarrassment; negative attitude towards treatment or mental health services; lack of perceived need for seeking help; long waiting hours at the health center; cost of treatment; lack of information about available services; preference for self-management over seeking help; and low health professional-to-patient ratio (Menon et al., 2015; Al Ali et al., 2017; Hasan and Musleh, 2017; Musakwa et al., 2021; Salaheddin and Mason, 2016).

The contention of underutilization of mental health services among university students is a public health concern as poor mental health affects not just interpersonal relationships but also other physical life factors (Wang et al., 2019). Some universities set up counseling centers and other mental health units with the primary function of providing direct counseling interventions to students whose personal problems interfere with their ability to function successfully in the academic environment (Bishop, 2010; Lockard et al., 2012).

However, literature reports that despite the chronicled benefits of these services, a good number of university students still underutilize mental health services even when these services are available within the campus community (Eisenberg et al., 2011). This study was carried out at Afe Babalola University due to the recent spike in mental health problems reported among students in the institution (Falade et al., 2020; Ayinde et al., 2021). Although the findings in this study might not be representative of the Nigerian population, they can provide a platform for future studies on the utilization of mental health services in other parts of Nigeria. To the best of the authors' knowledge, to be carried out to explore factors affecting utilization of mental health services in Nigeria The findings of this study will be used to tailor healthful interventions in order to achieve Sustainable Development Goal 3 (SDG 3) by 2030 by raising awareness among undergraduates about the importance of using mental health services. Therefore, the purpose of this study was to evaluate the factors influencing the utilization of mental health services among undergraduates in Afe Babalola University, Ado-Ekiti.

2. Methods

2.1. Ethics

This study obtained ethical approval from the Afe Babalola University Research Ethics Committee (ABUADUREC) with reference number 22/ABUAD/PUB/125. All selected participants used for this study were informed that their participation was voluntary and informed consent was sought from all participants prior to their participation. Confidentiality of participants was maintained as no personal identifying information was collected on the questionnaire. This study was carried out following ethical standards laid down by Helsinki and its amendments.

2.2. Study area

This study was carried out in Afe Babalola University Ado-Ekiti (ABUAD), in Ekiti state. Afe Babalola University is a university in Ekiti with a total student population of about 8500. ABUAD is well equipped with modern teaching facilities, including e-learning platforms and electronic boards. The university has six colleges (college of medicine and health sciences, college of law, college of sciences, college of engineering, college of pharmacy, and college of social and management sciences) for undergraduate studies. This study was carried out at the middle of the semester. The students were already in school three months prior to the study.

2.3. Research design

A cross sectional research design was used for this study.

2.4. Population

The population of this study was Afe Babalola University undergraduates staying in hostels cutting across 6 colleges; the College of Medicine and Health Sciences, College of Law, College of Sciences, College of Engineering, College of Social and Management Sciences, and College of Pharmacy.

2.5. Inclusion and exclusion criteria

Undergraduates from first year to final year of all colleges of Afe Babalola University who were willing to participate were included in the study. Students who did not give consent to participate, or who were not available at the time the questionnaires were administered were excluded from the study.

2.6. Sample size determination

Sample size was determined using Cochran's formula for computation of sample size (Cochran, 1963).

$$n = \frac{z^2.p(1-p)}{d^2}$$

where; n = Minimum sample size; z = Constant at 95% confidence interval which is 1.96 for two tailed study; p = Best estimate of population prevalence of 50%; d = Precision, which is at 95% confidence the interval is 5%.

$$n = \frac{(1.96^2)X\ 0.5(1-0.5)}{0.5^2}$$

n = 384 respondents; 10% of calculated sample size will be added to accommodate for non-response by participants making a total of 422 respondents.

2.7. Sampling technique

A multistage sampling technique was used to select undergraduate students who were willing to participate in this study.

2.8. Stage 1

Considering the heterogeneity of the study population, the sample was drawn evenly from clusters of hostels with similar building structures on the university campus.

2.9. Stage 2

Simple random sampling was used to select one floor from each hostel to be used.

2.10. Stage 3

Proportionate allocation was used to calculate the proportion of students to administer questionnaires on each floor. The proportionate allocation of the hostels is shown in Table A1.

2.11. Stage 4

Systematic random sampling was adopted to select the total number of rooms for each floor by selecting 1 from every 4 rooms. All the occupants of each selected room filled out the questionnaire.

Table 1. Demographics of study participants.

Variable		Frequency (n = 450)	Percentage (%)
Age (Mean ± SD)		19.40 ± 1.652 years (Range: 15–26 years)	
Gender	Male	214	47.6
	Female	236	52.4
Ethnicity	Yoruba	149	33.1
	Igbo	131	29.1
	Hausa	66	14.7
	Others	104	23.1
Relationship status	In a relationship	179	39.8
	Not in a relationship	271	60.2
College	MHS	92	20.4
	Sciences	87	19.3
	SMS	84	18.7
	Law	74	16.4
	Pharmacy	26	5.8
	Engineering	87	19.3
Level	100	28	6.2
	200	87	19.3
	300	163	36.2
	400	148	32.9
	500	24	5.3
Religion	Christianity	333	74.0
	Islam	91	20.2
	Other	26	5.7
Hostel	Kuvuki	69	15.3
	Jamaica	116	25.8
	Freshers	26	5.8
	Abuad	46	10.2
	NFH1	82	18.2
	NFH2	59	13.1
	Wema	43	9.6
	2-Man Deluxe	9	2.0
Monthly Allowance (Naira)	10,000–30,000	73	16.2
	40,000–60,000	196	43.6
	>60,000	181	40.2
Source of information	Family	176	39.1
	Friends	140	31.1
	Psychiatrist	53	12.0
	Others	81	17.8

Table A.1. Proportionate allocation of the selected hostels

Name of Hostels Picked	Selected Floors	Total Students on The Floor	Total Number of Rooms on each Floor	Number of Students Selected on each floor	Number of Selected Rooms on each Floor
Jamaica	Floor 1	208	52	50	13
Kuvuki	Floor 3	272	68	65	17
Freshers	Floor 3	128	32	31	8
4-man deluxe	Floor 1	264	66	63	17
ABUAD	Floor 4	256	64	61	16
Wema	Floor 2	280	70	67	18
NFH2	Floor 1	144	36	34	9
NFH1	Floor 4	336	84	79	21
Total	8 floors	1888	472	450 students	119 rooms

Total number of selected students = 450 students.

Table 2. Pattern of health-seeking behavior of undergraduates towards mental health services.

S/N	Statements	Responses (%)			
		N	R	OCC	ALW
1.	How often do you engage in discussions about your mental health	**157 (34.9)**	**170 (37.8)**	**111 (24.7)**	**12 (2.7)**
2.	How often do you visit the mental centre in the school	**277 (61.6)**	**98 (21.8)**	**69 (15.3)**	**6 (1.3)**
3.	How often have you been emotionally troubled that you felt a need to seek help	**103 (22.9)**	**158 (35.1)**	**147 (32.7)**	**42 (9.3)**
4.	How often do you speak to your friends about a particular problem	**78 (17.3)**	**166 (36.9)**	**162 (36.0)**	**44 (9.8)**
5.	How often do you speak to your parents or relatives when you are emotionally disturbed	**119 (26.4)**	**154 (34.2)**	**130 (28.9)**	**47 (10.4)**
6.	How often do you speak to your boyfriend or girlfriend about personal issues	**164 (36.4)**	**98 (21.8)**	**102 (22.7)**	**86 (19.1)**
	Good behavior	**305 (67.8)**			
	Poor behavior	**145 (32.2)**			

Key: N= Never-1; R= Rarely-2; OCC=Occasionally-3; ALW=Always-4.

2.12. Instruments for data collection

The questionnaire was a semi-structured questionnaire designed after a thorough literature search. The variables were aligned in such a way that they corresponded to the research objectives, providing answers to the research questions. The variables contained pertinent items that were strategically organized for easy and accurate computation. Since the target population was educated, the instrument was written entirely in English.

The instrument had six sections. Section A assessed the socio-demographic characteristics of the participants that are relevant to the study which includes age, gender, ethnicity, religion, college, hostel, level of study, and number of roommates. Section B assessed the attitude of the students towards the utilization of mental health services.

This variable consisted of seven Likert questions measured on a 4-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The scale was represented as Strongly Agree (SA) as 1, Agree (A) as 2, Disagree (D) as 3, Strongly Disagree (SD) as 4. The respondents' attitudes were divided into two categories: good (>50% of total score) and poor (50% of total score). Section C evaluated the level of social support the respondents received towards the utilization of mental health services. The variable consisted of eight Likert questions and was measured using a 4-point rating scale of Never (N), Rarely (R), Occasionally (OCC), and Always (A).

The scale was represented as Never (N) as 1, Rarely (R) as 2, Occasionally (OCC) as 3, Always (A) as 4. Social support was categorized into poor (8–18), moderate (19–25), and strong (26–32). Section D assessed the barriers to the utilization of mental health services among the respondents. The variable consisted of eight dichotomous yes or no questions.

The dichotomous response was measured on a ``Yes or No'' response. Section E assessed the utilization of mental health services among the participants. The variable consists of four Likert questions and was measured using a 4-point rating scale of Never (N), Rarely (R), Occasionally (OCC), and Always (A). The scale was represented as Never (N) as 1, Rarely (R) as 2, Occasionally (OCC) as 3, Always (A) as 4. Utilization was categorized into good (≥50% of the total utilization score), and poor (<50% of the total utilization score). Section E assessed the pattern of health seeking behavior among the participants. It consisted of six 4-point Likert scale questions measured as Never (N), Rarely (R), Occasionally (OCC), and Always (A). The scale was represented as Never (N) as 1, Rarely (R) as 2, Occasionally (OCC) as 3, Always (A) as 4. Health seeking behaviour was categorized into positive (≥50% of the behavior score), and negative (<50% of the total behaviour score).

2.13. Validity and reliability of the instrument

Content validity was determined by the project supervisor and academic staff of the Department of Public Health. Additionally, the instrument was designed after a comprehensive literature review to incorporate and appropriately measure important variables in this study. A pre-test was conducted for internal consistency of the instrument using 10% of the calculated sample size from undergraduate students of Elizade University, Ondo State. These participants were not included in the final data. The reliability of the instrument was also determined using the Cronbach Alpha coefficient and the result ranged between 0.73 and 0.818.

2.14. Data collection

The research questionnaire was self-administered to undergraduate students in their hostels. The questionnaire was simple and clear for the participant's questions. Participants were encouraged to take their time and pay utmost attention.

2.15. Data analysis

The collected data was screened by looking at each item on each questionnaire to ensure that the respondents answered correctly.

Table 3. Attitude of the students towards utilization of mental health services.

S/N	Statements	Responses (%)			
		SA	A	D	SD
1.	I feel I can get professional help if I was having a mental breakdown	150 (33.3)	178 (39.6)	95 (21.1)	27 (6.0)
2.	When I am emotionally disturbed, I prefer solving it on my own	152 (33.8)	212 (47.1)	73 (16.2)	13 (2.9)
3.	I feel comfortable talking about my personal problems	52 (11.6)	128 (28.4)	200 (44.4)	70 (15.6)
4.	If I am mentally disturbed, I don't see it as my personal matter but also a threat to my friends and family	82 (18.2)	138 (30.7)	180 (40.0)	50 (11.1)
5.	I do not use mental health services in school because of the belief that culture has on the mentally ill individuals	112 (24.9)	119 (26.4)	179 (39.8)	40 (8.9)
6.	I feel the treatment young people receive at mental health clinics in my school make them talk gibberish	85 (18.9)	121 (26.9)	205 (45.6)	39 (8.7)
7.	I think individuals diagnosed as mentally ill in mental clinics in my school suffer from its symptoms throughout their life	80 (17.8)	124 (27.6)	198 (44.0)	48 (10.7)
	Positive Attitude	395 (87.8)			
	Negative Attitude	55 (12.2)			

Key: SA = Strong Agree-4; A = Agree-3; D = Disagree-2; SD = Strongly Disagree-1.

Table 4. Utilization and barriers influencing utilization of mental health services among the students.

S/N	Statements	Responses (%)			
		N	R	OCC	ALW
1.	How often do you use mental health services	299 (66.4)	124 (27.6)	20 (4.4)	7 (1.6)
2.	I am restricted to the use of mental health services due to the lack of qualified mental health personnel	245 (54.4)	105 (23.3)	65 (14.4)	35 (7.8)
3.	I discuss my personal issues with the mental health specialist	266 (59.1)	92 (20.4)	72 (16.0)	20 (4.4)
4.	The health professionals are receptive to my needs	211 (46.9)	127 (28.2)	73 (16.2)	39 (8.7)
	Good Utilization	160 (35.6)			
	Poor Utilization	290 (64.4)			
Barriers influencing the utilization of mental health services		Yes (%)	No (%)		
1	Mental health services in my school are expensive	289 (64.2)	161 (35.8)		
2	The mental health facility is too far from where I stay	275 (61.1)	175 (38.9)		
3	I am worried about my privacy and confidentiality if I use the mental health services in my school	330 (73.3)	120 (26.7)		
4	I do not have enough time to visit the mental health clinic	325 (72.2)	125 (27.8)		
5	I do not have enough knowledge on what mental health services entail	267 (59.3)	183 (40.7)		
6	If I am seen going in and out of a mental health clinic, I would be too embarrassed	204 (45.3)	246 (54.7)		
7	I do not think the services rendered at the mental health clinic would help	230 (51.1)	220 (48.9)		
8	I have had bad experiences with past counselors at the mental health clinic	153 (34.0)	297 (66.0)		

Key: N = Never-1; R = Rarely-2; OCC = Occasionally-3; ALW = Always-4.

Descriptive statistics were used to describe the socio-demographic characteristics of the participants. Chi-square was used to test for any association between the categorical variables. Multinomial logistic Regression was also used to predict the relationship between demographics, attitude, source of information, health seeking behavior, and utilization of mental health services. Utilization of mental health services was selected into the dependent variable box while the independent variables (age, gender, source of information, attitude, health seeking behavior, and social support) were moved into the covariate box. The goodness of fit box was checked before running the analysis. The strength of the relationship was interpreted using the odds ratio, 95% confidence interval (95% CI), and p-value. The information obtained was summarized and presented as charts and tables. Statistical Package for Social Sciences (SPSS) version 25 was used to conduct the analysis and significance was set at $p \leq 0.005$.

3. Results

3.1. Demographics of study participants

A total of 450 students participated in this study with a mean age of 19.40 ± 1.652 years (range: 15–26 years). Two hundred and thirty-six students (52.4%) were female while less than 48% (214) were males. One hundred and forty nine students (33.1%) were from the Yoruba ethnic group while less than 15% (66) were Hausa. Approximately6% (26) of the participants were students from the College of Pharmacy while 92 (20.4%) were from College of Medicine and Health Sciences (MHS). More than one-third (148) were in 400 level and 28 students were in 100 level. A good number of the students (333; 74.0%) were Christians, while 20.2% were Muslims. More information on the students' demographics has been summarized in Table 1.

3.2. Students' source of mental health information

The students also reported their sources of information on mental health in this study. One hundred and seventy-six students (39.1%) stated that they obtain their mental health related information from family while 31.1% (140) obtained it from friends. Less than 12% (53) reported obtaining theirs from a psychiatrist while others stated that they obtained their information from other sources (Table 1).

3.3. The pattern of health-seeking behavior of students towards mental health services

The pattern of health-seeking behavior of the students towards mental health services was also assessed in this study. One hundred and seventy (37.8%) students rarely engaged in discussions about mental

Table 5. Level of social support students receive towards the utilization of mental health services.

S/N	Statements	Responses (%)			
		N	R	OCC	ALW
1.	I get assistance from my friends if I feel lonely or need to use the mental health clinic in the school	122 (27.1)	124 (27.6)	154 (34.2)	50 (11.1)
2.	I have a special person who is a real source of comfort for me if I have an emotional breakdown	87 (19.3)	114 (25.3)	134 (29.8)	115 (25.6)
3.	I get encouragement to practice the health counsels I received from mental health clinics in my school by those around me	170 (37.8)	131 (29.1)	110 (24.4)	39 (8.7)
4.	My parents encourage me to make use of mental health services in my school	177 (39.3)	133 (29.6)	84 (18.7)	56 (12.4)
5.	I can talk about my problems with my friends	67 (14.9)	151 (33.6)	159 (35.3)	73 (16.2)
6.	If I needed to see a specialist, I could easily find someone to assist me to the mental health ward in school	108 (24.0)	157 (34.9)	126 (28.0)	59 (13.1)
7.	When I feel lonely, there are several people I can talk to	78 (17.3)	130 (28.9)	160 (35.6)	82 (18.2)
8.	When I need suggestions on how to deal with my mental health, I know someone I can turn to	117 (26.0)	90 (20.0)	118 (26.2)	125 (27.8)
	Poor social support	198 (44.0)			
	Moderate social support	222 (49.3)			
	Strong social support	30 (6.7)			

Key: N = Never-1; R = Rarely-2; OCC = Occasionally-3; ALW = Always-4.

Table A.2. Association between demographics, attitude, level of social support, health seeking behavior and utilization of mental health services among the students

Variables		Gender		X^2	P-value[a]	Social support			X^2	P-value[a]	Source of information			
		M	F			Poor	Moderate	Strong			FA	FR	PS	OT
Utilization	**Good**	84	76	2.434	0.119	70	78	12	0.279	0.870	48	50	27	35
	Poor	130	160			128	144	18			128	90	26	46

Key: M = Male; F=Female; [a] = Pearson Chi-square Test; FA = Family; FR = Friends; PS = Psychiatrist; OT = Others; P=Positive; N=Negative; * = Statistically significant value $p \leq 0.05$.

health while less than 16% (69) stated that they occasionally visit the mental health center in school. Less than 10% (44) reported that they always speak to their friends about a particular problem and 26.4% (119) admitted to never speak to their parents or relatives when emotionally disturbed.

More than 67% (305) showed positive health seeking behavior towards mental health services. This has been summarized in Table 2.

3.4. Attitude of the students towards utilization of mental health services

In this study, a number (178, 39.6%) of the students agreed that they feel they can get professional help if they had any mental breakdown while 2.9% (13) strongly disagreed that they preferred staying on their own when emotionally disturbed (Table 3).

More than 19% (85) of participants strongly agreed that they felt that the treatment received by young people at mental health clinics makes them talk gibberish, while 48 (10.7%) strongly disagreed that individuals diagnosed as mentally ill in mental health clinics suffer from its symptoms throughout life. Overall, the majority (395, 87.5%) of the students showed a positive attitude towards mental health services (Summarized in Table 3).

3.5. Utilization of mental health services among the students

The majority of the students (66.7%) reported that they have never used mental health services, while less than 8% stated that they are always restricted to the use of mental health services due to the lack of qualified mental health personnel. The overall assessment showed that over 64% (290) of the students had a poor utilization of mental health services (Table 4).

3.6. Barriers to the utilization of mental health services

Certain barriers were identified by the students that hamper the utilization of mental health services in the university. Two hundred and eighty-nine students (64.2%) stated that the cost of mental health services is too high while 73.3% (330) reported that they are not convinced that their mental health issues would be held with a high form of confidentiality. Three hundred and twenty-five (72.2%) said that they do not have enough time while over 59% (267) stated that they have poor knowledge of mental health-related services (Table 4).

3.7. Level of social support students receive towards utilization of mental health services

The level of social support received by the students towards the utilization of mental health services was also assessed in this study. One hundred and twenty-two students (27.1%) reported that they never get assistance from friends if they feel lonely or need to use the mental health clinic in the school while 29.8% (134) stated that they occasionally contact a special person who acts as a source of comfort when they have an emotional breakdown. More than 16% (73) stated that they can always talk about their problems with their friends while one hundred and fifty-seven (34.9%) students reported that they could rarely find someone to assist them to the mental health ward in school if they needed to see a specialist in school. Majority of the students (290, 69.4%) in this study showed a poor level of social support while less than 7% (30) showed a strong level of social support received by them towards utilization of mental health services (Table 5).

3.8. Regression analysis and association between demographics, attitude, level of social support, health seeking behaviour and students' utilization of mental health services

There was no statistically significant association between gender ($p = 0.119$), age ($p = 0.346$), attitude ($p = 0.894$) and students' utilization of mental health services. While there was significant association between source of information ($p = 0.005$), health seeking behavior ($p = 0.001$) and utilization of mental health services (Table A2). The female gender was more likely to have a good attitude towards mental health services than males and this was statistically significant ($p = 0.005$; OR: 1.328–4.714). Students aged >20 years were more likely to have good utilization (OR (95% CI): 1.331 (0.822–2.153); $p = 0.245$) and attitude (OR (95% CI): 1.182 (0.599–2.332); $p = 0.629$) towards mental health services than students less than 20 years (Table A3). There was also a lower likelihood of good utilization of mental health services for students with a negative health seeking behavior (OR (95% CI): 0.393 (0.242–0.637); p 0.001), poor social support (OR (95% CI): 0.915 (0.396–2.117); $p = 0.836$), and family as a source of information (OR (95% CI): 0.028 (0.015–0.052); $p = 0.002$) (Table A3).

4. Discussion

4.1. Demographics of students and utilization of mental health services

Mental health problems are responsible for more than 7 percent of the world's disease burden (World Health Organization, 2018). About 400 million people currently suffer from mental illnesses, with one in every four people in the world expected to be affected by mental health problems at some point during their lives (World Health Organization, 2018). Mental illnesses have been reported to be more prevalent among the young population aged 15–26 (Kessler et al., 2007). This study was carried out among undergraduates who are in their late teens and early twenties, which are ages mostly associated with development of mental illness as stressors have been documented to increase the incidence of mental illness in undergraduate students compared to the general population (Gewin, 2012; Wyatt and Oswalt, 2013). This fits the profile of the population at risk of coming down with mental illnesses and can provide a better understanding of the utilization of mental health services among this research group. Low rates of service usage among young individuals with clinically significant levels of psychopathology show a startling discrepancy between needs and utilization of mental health services (Ford et al., 2007). Given the possible long-term harmful effects of untreated mental illnesses, timely access to treatments is crucial (De Girolamo et al., 2012). This study showed that students over the age of 20 were more likely to have a good utilization of mental health services than those under 20. This is similar to findings by Cadigan and colleagues where less than 23% of the young population showed good utilization of mental health services, culminating to higher likelihood of utilization shown by young adults above the age of 21 (Cadigan et al., 2019). Most adult psychiatric diseases have their roots in childhood and adolescence

X^2	P-value[a]	Attitude		X^2	P-value[a]	Age (%)		X^2	P-value[a]	Health seeking behavior		X^2	P-value
		Good	Poor			15–20 years	>20 years			P	N		
12.819	**0.005***	140	20	0.018	0.894	125	35	0.887	0.346	124	36	10.745	**0.001***
		255	35			215	75			181	109		

(Kim-Cohen et al., 2003). Hence, efforts to intervene at an early age in order to lessen the persistence of mental health - related diseases are important (Nobile et al., 2013).

Globally, females have been diagnosed with more mental illnesses than males (Statista, 2017).. A larger part of the study participants were females, similar to findings carried out in the United States, where more than 55% of the students were female (Eisenberg et al., 2011). This could be due to females' predisposition to partake in mental health – related studies more than males. However, there is an overall higher female to male ratio in the university.

The utilization of mental health services is unequal between the sexes. In this study, the female gender was seen to be more likely to have a good utilization of mental health services which is similar to findings by Pattyn et al. (2015). According to recent studies, men consult mental health experts less frequently than women which could be due to societally assigned masculine and feminine roles (Addis and Mahalik, 2003; Gouwy et al., 2008). Asking for help, taking care of one's health, and expressing one's emotions are portrayed as elements of idealized femininity (Mahalik et al., 2005). Men, on the other hand, strive to appear powerful, independent, and self-sufficient while maintaining emotional control (Galdas et al., 2005).. Men are pushed to define themselves in opposition to women by repressing their own health demands and by refusing to seek care in order to fit into the socially assigned male role. It is therefore important to encourage seeking of help when in need by both genders.

4.2. Source of information and utilization of mental health services by students

The increased incidence of mental health illnesses has led to an increased awareness and a resultant increase in demand for quality information on such illnesses (Slade et al., 2009). Information and support from informal sources such as family and friends are frequently perceived by members of the public as beneficial in dealing with mental illnesses (Griffiths et al., 2011). It has been well documented that the general public prefers such assistance than from formal ones including professional mental health providers (Brown et al., 2014; Egan, 2013). In this study, only less than 12% of the participants reported psychiatrists as their source of information. This is similar to findings by Brown et al. (2014) and Clement et al. (2015) that stated that the majority of people with mental health problems do not consult health professionals. Despite the low choice of psychiatrists as source of information on mental health issues, it was deduced that participants whose source of information was psychiatrists had a higher likelihood of good utilization of mental health services. This highlights the important role of psychiatrists in providing quality information on mental healthcare as well as alcohol and substance abuse disorders (American Psychological Association, 2014). A number of students opted for other sources of information such as internet sources which was slightly higher than findings in a study by Arria et al. (2011). Online health resources may be an appealing source of knowledge for people with stigmatized conditions due to the rising availability of the internet and the anonymity it provides (Berger et al., 2005). Furthermore, more than half of patients with psychosis (National Alliance on Mental Illness, 2011) and other psychiatric issues (Kalckreuth et al., 2014), utilize the internet to learn about their diagnosed mental health condition. The use of the internet - enabled services such as social media for the promotion and prevention of mental health issues can be encouraged as this can help raise general public knowledge and utilization of mental health services.

4.3. Attitude and health-seeking behavior of the students towards mental health services

An individual's predisposition to act a certain way based on their experiences, which include feelings, ideas, and behaviors, is referred to as their attitude (Pickens, 2005). Attitudes assist in defining people's perspectives on various events as well as determining their conduct in response to certain situations (Pickens, 2005). Thus, evaluation of attitudes towards mental health services could aid in identifying characteristics that create healthy practices and responsive behaviors, as well as bolstering attempts to prevent significant mental health disorders. In this study, the majority of the participants showed a positive attitude towards the utilization of mental health services. This is in tandem with a study carried out by Puspitasari and colleagues where more than 52% of the Indonesian students showed a positive attitude towards mental health disorders and treatment services (Puspitasari et al., 2020). Also, there was a higher likelihood of having a positive attitude shown by the females than the males towards mental health services. This contrasts with findings from another study, which found that men had more positive attitudes toward mental illnesses than women, and that most women were afraid of and unwilling to befriend people with mental illnesses

Table A.3. Regression analysis between demographics, source of information, health seeking behavior, attitude and utilization of mental health services

Variables		Good utilization of mental health services		Good attitude towards mental health services	
		Odds Ratio (95%CI)	P-value[a]	Odds Ratio (95%CI)	P-value[a]
Female gender (ref: male)		**1.621 (1.072–2.452)**	**0.022***	**2.502 (1.328–4.714)**	**0.005***
Above 20 years (ref: 15–20 years)		1.331 (0.822–2.153)	0.245	1.182 (0.599–2.332)	0.629
Negative health seeking behaviour (ref: positive behaviour)		**0.393 (0.242–0.637)**	**0.000***	0.620 (0.329–1.169)	0.140
Social support	Poor (ref: Strong)	0.915 (0.396–2.117)	0.836	0.175 (0.022–1.369)	0.097
	Moderate (ref: strong)	0.740 (0.330–1.662)	0.466	0.373 (0.047–2.954)	0.350
Source of mental health information	Family (ref: psychiatrist)	**0.028 (0.015–0.052)**	**0.002***	0.769 (0.569–2.454)	0.693
	Friends (ref: psychiatrist)	0.019 (0.010–0.035)	0.055	0.933 (0.636–2.122)	0.906
	Others (ref: psychiatrist)	0.014 (0.010–0.027)	0.381	0.637 (0.190–2.868)	0.116
Poor attitude towards mental health services (ref: good attitude)		0.823 (0.439–1.541)	0.543	-	-

Key: [a] = Logistic Regression; * = Statistically significant value at $p \leq 0.05$.

(Bener and Ghuloum, 2011). Female students' more positive attitudes toward mental health disorders may be attributable to their more hopeful views on the treatability of mental illnesses (Savrun et al., 2007).

A larger proportion of the participants in this study showed good health - seeking behavior, similar to findings by Bhandari and Chataut (2020), where 75% of medical students showed good health - seeking behavior towards utilization of mental health services. The positive health - seeking behavior of the study participants was reflected in their positive attitude on mental health services. This confirms that a positive attitude has a good effect towards health seeking behavior in individuals with mental disorders (Puspitasari et al., 2020)

4.4. Level of social support towards utilization of mental health services

Social support can safeguard people who are stressed and have a general positive influence on their health and mood (Hou et al., 2021; Martín-Albo et al., 2015). Those who receive more assistance from family or friends have a higher mental capacity and are healthier mentally and physically (Cao et al., 2020; Seiffge-Krenke and Pakalniskiene, 2011) while those who receive less support have a lower mental capacity and are unhealthy mentally and physically (Elmer et al., 2020; Li et al., 2020). The level of social support by the students towards mental health services in this study showed that the majority of the participants had a poor to moderate level of social support and showed the likelihood of poor utilization compared to those with strong support. This is similar to a study by Hefner and Eisenberg where a total of 58% of the students had either low or moderate social support towards mental health and related services (Hefner and Eisenberg, 2009). It is critical to advocate for social support for mental health services in order to maximize positive mental health outcomes.

4.5. Utilization and barriers to the utilization of mental health services

Inadequate mental health treatment utilization is one of the many challenges faced in the control and management of mental diseases. This challenge is very severe and it has been reported that individuals diagnosed with mental and neurological problems are mostly those with poor utilization of mental health services - about 50% in developed countries and more than 80% in developing countries (World Health Organization, 2008). Most of the study participants showed poor utilization of mental health services. This is similar to a study done in Nigeria where less than 20% of people with mental illnesses received treatment, with only 10% of those using public mental health services and only 10% maintaining 12-month follow-up treatment (Wang et al., 2007). Early mental health care and treatment maintenance are crucial for promoting mental health well-being, identifying mental health concerns, and preventing illness progression. Certain barriers that hinder mental health service utilization were identified by the study participants. Stigma and cost were the most identified barriers similar to other studies (Luitel et al., 2017; Salaheddin and Mason, 2016; Taghva et al., 2017). It is critical for society to comprehend how stigma affects those with mental illnesses and the need for a shift in public perception. Poverty and the lack of a social safety net for mental health service consumers have been found to increase the burden of mental disorders and lead to poor mental health outcomes (Thornicroft, 2007; Wang et al., 2007). Mental health services should be made affordable and at a subsidized rate.

4.6. Limitation of study

The study site, Afe Babalola University was chosen due to the recent spike in mental health cases reported among students in the institution (Falade et al., 2020; Ayinde et al., 2021). The findings in this study may not be representative of the Nigerian population but it may provide a good platform for future studies on utilization of mental health services in other parts of Nigeria. This study was carried out in Afe Babalola University only and this should be considered in the generalizability of the study results. Also, the mental health status as well as the current prevalence of mental health problems among the study participants was not assessed which might have had some effect on the utilization of mental health services among the study population.

5. Conclusion

The majority of the students showed good attitudes and health-seeking behavior towards mental health services, but there was poor utilization as well as poor to moderate social support towards mental health services. Gender, age, attitude, source of information, as well as health-seeking behavior are important factors that can affect the utilization of mental health services among undergraduate students. Adequate interventions should be channeled towards these factors in order to improve utilization of mental health services, which would ultimately improve mental health-related outcomes among undergraduate students.

Declarations

Author contribution statement

Olasumbo Kukoyi: Conceived and designed the experiments.
Edidiong Orok: Analysed and interpreted the data; wrote the paper.
Hannah Eze: Performed the experiments; wrote the paper.
Funmilayo Oluwafemi, Tunrayo Oluwadare, Olawale Oni, Toba Bamitale, Boluwaji Jaiyesimi, Tolulope Ojo: Contributed materials and designed the experiment.

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Data availability statement

The data that has been used is confidential.

Declaration of interest's statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper.

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