

HEALTHCARE-SEEKING BEHAVIOUR AMONG UNDERGRADUATE STUDENTS OF FEDERAL UNIVERSITY OF KASHERE, GOMBE STATE: ILLNESS PATTERNS, DEMOGRAPHIC CORRELATES AND BARRIERS TO HEALTH SERVICE UTILISATION

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ABSTRACT

The study investigates the healthcare-seeking behaviour among undergraduate students of Federal University of Kashere, Gombe State. The study was guided by three objectives. A convergent mixed-methods research design was adopted. Quantitative data were collected from 580 undergraduate students, of which 569 completed questionnaires were analysed, giving a response rate of 98.1%. Four key informants were interviewed. Quantitative data were analysed using frequencies, percentages and chi-square tests, while qualitative data were analysed thematically. The findings revealed that malaria/fever was the leading condition prompting clinic visits among respondents (62.4%), followed by headache/migraine (22.1%) and gastrointestinal complaints (10.5%). Regarding satisfaction with illness management, 41.3% of respondents reported dissatisfaction, while 39.0% were satisfied and 19.7% were somewhat satisfied. The major barriers affecting healthcare utilisation were long waiting time, inadequate diagnostic equipment, inadequate staffing, shortage of essential drugs and medical supplies, healthcare cost, and lack of privacy during consultation. Age was significantly associated with healthcare utilisation ($\chi^2 = 16.864$, $p < .001$), with utilisation increasing from 80.6% among respondents aged 16–20 years to 97.6% among those aged 26 years and above. However, gender ($\chi^2 = 0.006$, $p = .941$), level of study ($\chi^2 = 1.387$, $p = .709$), and place of residence ($\chi^2 = 0.014$, $p = .905$) were not significantly associated with healthcare utilisation. The study concludes that although healthcare utilisation among FUK undergraduate students was high, improvements are required in staffing, diagnostic capacity, medicine availability, waiting-time management, and patient-centred care. Strengthening these areas will enhance the quality, accessibility, and effectiveness of university healthcare services.

Keywords: Healthcare-seeking behaviour, healthcare utilization, university clinic, undergraduate students; barriers to care; Federal University of Kashere

Introduction

Health is essential to individual well-being, productivity and effective academic participation. Healthcare-seeking behaviour describes the actions individuals take when they perceive a health problem, including seeking professional care, obtaining medicines from pharmacies, self-medication or delaying treatment. Among university students, these decisions are important because students increasingly make independent health decisions while simultaneously managing academic, social and financial demands. University health centres therefore represent an important source of accessible care for students.

Students may present with a range of acute and chronic health complaints. Recent Nigerian evidence shows that university health facilities are used for conditions such as malaria, fever, headache, gastrointestinal complaints and other common illnesses, while problems with medicine availability, staffing, waiting time and perceived service quality may influence subsequent utilisation (Bello *et al.*, 2024; Orok *et al.*, 2024; Wankasi *et al.*, 2024). Evidence from the University of Jos also demonstrates the usefulness of examining the actual pattern of services and conditions managed within a university health centre (Usar & Mairiga, 2020).

Healthcare utilisation may also vary according to demographic characteristics. Age, gender, academic level and residence can affect exposure to health information, independence in decision-making, proximity to facilities and competing academic demands. Andersen's behavioural model provides a useful framework because demographic characteristics can operate as predisposing factors, service resources and barriers as enabling factors, and illness or perceived need as need factors (Andersen, 1995).

Despite evidence from other Nigerian universities, there remains a local evidence gap concerning the combination of illness patterns, demographic correlates and service barriers among undergraduate students at FUK. Existing studies have examined other institutions, including Gombe State University and Niger Delta University, but their findings cannot automatically be assumed to represent FUK because institutional arrangements, student composition and service conditions may differ (Bello *et al.*, 2024; Wankasi *et al.*, 2024). The present study therefore addressed this gap by examining the illnesses that prompt clinic attendance, barriers affecting access and utilisation, and the relationship between selected demographic characteristics and utilisation among FUK undergraduates.

Research Questions

1. What types of illnesses most commonly motivate students to seek care at the university health clinic?
2. What challenges do students encounter in accessing and utilising the healthcare services offered by the university clinic?
3. How do demographic characteristics of the students influence healthcare utilisation?

Research Hypotheses

H₀₁: There is no significant association between age and healthcare utilisation among undergraduate students of Federal University of Kashere.

H₀₂: There is no significant association between gender and healthcare utilisation among undergraduate students of Federal University of Kashere.

H₀₃: There is no significant association between level of study and healthcare utilisation among undergraduate students of Federal University of Kashere.

H₀₄: There is no significant association between place of residence and healthcare utilisation among undergraduate students of Federal University of Kashere.

Literature Review

Illness Patterns and University Healthcare Utilisation

University students commonly seek care for acute conditions that produce symptoms sufficiently disruptive to academic or daily activities. Evidence from Niger Delta University found malaria/fever, headache and abdominal complaints among conditions presented at the university sick bay (Wankasi *et al.*, 2024). Similarly, Bello *et al.* (2024) reported malaria fever, cold/fever, headache, gastrointestinal complaints and other conditions among students using Gombe State University health services. These studies suggest that university clinics frequently function as first-contact facilities for common acute illnesses.

Afolabi *et al.* (2013) also showed that students may combine university health services with community pharmacies and other sources of care. Usar and Mairiga (2020), although based on facility records rather than a student survey, demonstrated the value of analysing the conditions treated and services utilised at a university health centre. However, the specific distribution of illness complaints and students' perceived barriers at FUK had not been documented in the available literature. This study therefore contributes institution-specific evidence.

Challenges to Accessing and Utilising University Healthcare Services

University health services may be underused when students encounter organisational, financial and interpersonal barriers. Obiechina and Ekenedo (2013) identified cost and other service-related factors as relevant to utilisation in a Nigerian tertiary institution. More recent Nigerian studies have similarly identified medicine availability, staffing, waiting time, facilities, staff-student relationships and perceived quality as factors that can influence students' use of university health services (Bello *et al.*, 2024; Orok *et al.*, 2024; Wankasi *et al.*, 2024).

Orok *et al.* (2024) specifically examined students' perceptions of healthcare services and factors affecting utilisation at a Nigerian university, providing recent evidence that perceived service conditions can shape students' experiences. Wankasi *et al.* (2024) likewise found that availability of medication and staff-related issues were important concerns. These studies support the relevance of examining barriers at FUK, but they do not establish the magnitude or pattern of barriers at FUK. The present study therefore assessed waiting time, staffing, cost, medicines and supplies, diagnostic equipment and privacy as reported by FUK students.

Demographic Correlates of Healthcare Utilisation

Demographic characteristics may influence healthcare utilisation through differences in health needs, experience, knowledge, independence and access. Age may be related to greater independence in health decisions, while gender may reflect differences in health needs and patterns of help-seeking. Academic level can influence familiarity with university services, while residence can affect physical proximity to the university clinic.

However, demographic associations are not necessarily consistent across settings. The presence of a university clinic does not mean that students with different demographic characteristics will use it in the same way. The current study therefore tested age, gender, level of study and residence separately rather than treating them as universal determinants. The gap addressed by this approach is the absence of comparable evidence for FUK students.

Empirical Studies

Afolabi *et al.* (2013) examined health-seeking behaviour and students' perceptions of healthcare services in a Nigerian university community. The study demonstrated that students did not rely exclusively on the university health centre and that perceptions and alternative sources of care influenced health-seeking behaviour. Obiechina and Ekenedo (2013), using 540 students at a

Nigerian tertiary institution, examined factors affecting utilisation and highlighted the relevance of students' perceptions and the cost of care.

Usar and Mairiga (2020) assessed access and patterns of utilisation at the University of Jos Health Centre using a retrospective cross-sectional approach. Their work provides useful facility-level evidence but does not directly answer how FUK students perceive barriers or how their demographic characteristics relate to utilisation. Bello *et al.* (2024) studied 600 undergraduate students at Gombe State University and reported illness patterns including malaria, headache, gastrointestinal complaints and other conditions, together with challenges involving personnel, drugs, facilities and delays.

Wankasi *et al.* (2024) studied 142 Health Education students at Niger Delta University using a questionnaire with a reported Cronbach's alpha of 0.81. They found low utilisation of the sick bay and identified medication availability and staff-related concerns among barriers. Orok *et al.* (2024), in a cross-sectional study at a Nigerian university, further examined students' perceptions and factors affecting healthcare utilisation. Collectively, these studies show that illness patterns and service conditions matter, but the combination of illness patterns, barriers and demographic associations has not been documented at FUK. The present study addresses that gap.

Theoretical Framework: Andersen's Behavioural Model of Health Services Use

Andersen's Behavioural Model explains healthcare utilisation through predisposing, enabling and need-related factors (Andersen, 1995). Predisposing characteristics include demographic factors that exist before the immediate need for care, such as age and gender. In this study, age, gender and level of study were treated as predisposing characteristics, while place of residence was considered relevant to the enabling environment because it may affect proximity to the university clinic.

Enabling factors include resources and service conditions that facilitate or constrain access, such as affordability, availability of personnel, medicines, diagnostic facilities and acceptable service arrangements. The barriers examined in this study therefore correspond to enabling conditions. Need factors refer to perceived or evaluated illness; the illnesses reported as reasons for clinic attendance represent the need component of the model. Andersen's framework was selected because it directly links the study's demographic variables, illness patterns and institutional barriers to healthcare utilisation.

Materials and Methods

Research Design

A convergent parallel mixed-methods research design was adopted. Quantitative data were collected through a structured questionnaire administered to undergraduate students, while qualitative data were obtained through key informant interviews (KIIs) with university health-service stakeholders. The two strands were analysed separately and brought together during interpretation to explain the quantitative pattern of illness, utilisation and barriers.

The study was conducted at Federal University of Kashere (FUK), located in Kashere, Akko Local Government Area of Gombe State, north-eastern Nigeria. The university was established by the Federal Government of Nigeria in 2010 and commenced academic activities in 2011/2012. FUK provides undergraduate programmes across faculties including Arts and Social Sciences, Education and Science, among others. The university health care clinic provides healthcare services to students and other members of the university community. The official university location information confirms that FUK is located in Kashere, Akko LGA, Gombe State (Registrar's Office, FUK, 2026).

Population of the Study

The study population comprised all full-time undergraduate students of the Federal University of Kashere (FUK). The undergraduate student population for the 2025/2026 academic session was 16,725, as reported by the Registrar's Office, FUK (2026). In addition, four key informants who had relevant knowledge of student healthcare services were included in the study. The key informants comprised the Dean of Student Affairs, the Head of the University Clinic, the President of the Students' Representative Council (SRC), and the Staff Adviser to the SRC.

Sample Size and Sampling Procedure

The sample size was determined using Cochran's formula with finite population correction at a 95% confidence level and 4% margin of error. For a population of 16,725, the corrected sample size was approximately 579.5 and was rounded to 580 students. Of the 580 questionnaires administered, 569 were returned and usable, giving a response rate of 98.1%.

A multistage sampling procedure was used. First, three Faculties Arts and Social Sciences, Education and Science were selected. Second, departments were selected within the chosen faculties. Third, respondents were selected using proportionate stratified sampling to reflect the distribution of students across academic levels and gender. Four key informants were purposively selected because of their knowledge of student healthcare services and utilisation.

Instrument for Data Collection

A structured questionnaire was used for the quantitative component. The questionnaire contained sections covering socio-demographic characteristics, illnesses or conditions prompting clinic attendance, healthcare utilisation and perceived barriers to accessing the university clinic. A semi-structured KII guide was used for the qualitative component and covered access and utilisation, registration and location, waiting time, staffing, communication and professionalism, availability of medicines and supplies, facilities, preventive services, emergencies and referral arrangements.

Content validity of the questionnaire and interview guide was established through review by three experts in Medical Sociology, Demography and Social Policy. The experts assessed the relevance, clarity, adequacy, appropriateness and comprehensiveness of the items in relation to the study objectives, and their corrections were incorporated. The questionnaire was pilot-tested among undergraduate students at Gombe State University who were excluded from the main study. Internal consistency was assessed using Cronbach's alpha, which produced a reliability coefficient of 0.79, indicating acceptable reliability.

Ethical Considerations

Ethical approval was obtained from the Federal University of Kashere, Gombe, Gombe State before commencement of data collection. Participation was voluntary and informed consent was obtained from respondents and interview participants. Participants were informed of their right to decline participation or withdraw without penalty. Questionnaires were administered anonymously, interview information was treated confidentially, and the data were used for academic purposes.

Method of Data Analysis

Quantitative data were coded and analysed using the Statistical Package for the Social Sciences (SPSS version 26.0). Frequencies and percentages were used to summarise categorical variables. The chi-square test of independence was used to examine associations between healthcare utilisation and age, gender, level of study and place of residence at the 0.05 level of significance. Interview recordings were transcribed, organised into themes and analysed thematically. The quantitative and qualitative findings were then integrated during interpretation.

Results

Table 1: Socio-Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage (%)
Age	16–20 years	144	25.3
	21–25 years	341	59.9
	26–30 years	64	11.2
	31–35 years	16	2.8
	36 years and above	4	0.7
	Total	569	100.0
Gender	Male	287	50.4
	Female	282	49.6
	Total	569	100.0
Faculty	Arts and Social Sciences	234	41.1
	Science	199	35.0
	Education	136	23.9
	Total	569	100.0
Level	100 level	152	26.7
	200 level	132	23.2
	300 level	82	14.4
	400 level	203	35.7
	Total	569	100.0
Residence	University hostel	128	22.5
	Off-campus	441	77.5
	Total	569	100.0

Table 1 presents the socio-demographic characteristics of the respondents involved in the study. The characteristics considered include age, gender, faculty, level of study, and place of residence. A total of 569 respondents participated in the study, representing 100% of the sample. Regarding the age distribution of respondents, the findings show that the majority of the respondents were within the age range of 21–25 years, accounting for 341 respondents (59.9%). This was followed by respondents aged 16–20 years, with 144 respondents (25.3%). Respondents within the age group of 26–30 years constituted 64 respondents (11.2%), while those aged 31–35 years represented 16 respondents (2.8%). Only 4 respondents (0.7%) were aged 36 years and above. This indicates that the respondents were predominantly young adults, which is expected considering that the study population comprised university students who are generally within the youth age category.

The gender distribution indicates that there was a nearly equal representation of male and female respondents. The table shows that 287 respondents (50.4%) were male, while 282 respondents (49.6%) were female. This suggests that the study achieved a balanced gender representation, allowing the findings to reflect the views of both male and female students without significant gender imbalance. With respect to faculty distribution, respondents from the Faculty of Arts and Social Sciences constituted the largest proportion, with 234 respondents (41.1%). This was followed by respondents from the Faculty of Science, accounting for 199 respondents (35.0%), while the Faculty of Education had the lowest representation, with 136 respondents (23.9%). The distribution indicates that participants were drawn from different academic disciplines, thereby providing diverse perspectives relevant to the study.

The distribution of respondents according to level of study shows that students from the 400 level formed the largest group, with 203 respondents (35.7%). This was followed by 100 level students, with 152 respondents (26.7%), and 200 level students, with 132 respondents (23.2%). The least represented group was 300 level students, with 82 respondents (14.4%). The presence of respondents across different academic levels suggests that the study captured opinions from students at various stages of university education. Regarding place of residence, the findings reveal that the majority of respondents lived off-campus, accounting for 441 respondents (77.5%), while 128 respondents (22.5%) resided in the university hostel. This indicates that most respondents were non-residential students, which may reflect the accommodation pattern of the institution where a larger proportion of students live outside the university campus. The socio-demographic characteristics implies that the respondents were mainly young university students, with balanced gender representation and participation across different faculties and academic levels. The diversity of the respondents enhances the reliability of the study findings because opinions were obtained from students with varying demographic and academic backgrounds.

Table 2: Conditions that Most Commonly Prompted Respondents to Visit the Clinic

Condition	Frequency	Percentage (%)
Malaria/fever	355	62.4
Headache/migraine	126	22.1
Gastrointestinal issues (e.g., diarrhoea, stomach pain)	60	10.5
Respiratory tract infections (e.g., cough, catarrh, flu)	12	2.1
Skin conditions (e.g., rashes, allergies)	6	1.1
Urinary tract infections (UTI)	2	0.4
Other responses	8	1.4
Total	569	100.0

Table 2 presents the health conditions that most commonly prompted respondents to seek medical attention at the clinic. The findings indicate that malaria/fever was the leading health condition reported among respondents, accounting for 355 respondents (62.4%). This shows that malaria-related symptoms remain the most common reason for clinic visits among the respondents, reflecting the continued prevalence of malaria and febrile illnesses within the study population. The second most frequently reported condition was headache/migraine, reported by 126 respondents (22.1%). This suggests that symptoms associated with stress, fatigue, academic pressure, environmental factors, or other underlying health issues also contributed considerably to healthcare utilization among the respondents. Furthermore, gastrointestinal issues, including diarrhoea and stomach pain, accounted for 60 respondents (10.5%). This indicates that digestive-related illnesses were another notable cause of clinic attendance, although they occurred less frequently compared with malaria and headache-related complaints.

The table further shows that respiratory tract infections, such as cough, catarrh, and flu, were reported by 12 respondents (2.1%). Similarly, skin conditions, including rashes and allergies, accounted for 6 respondents (1.1%), while urinary tract infections (UTIs) were reported by only 2 respondents (0.4%). These conditions represented a relatively small proportion of clinic visits among the respondents. Only 8 respondents (1.4%) reported other health conditions not specifically listed in the questionnaire. The findings implies that clinic utilization among

respondents was largely driven by malaria/fever-related illnesses, followed by headache/migraine and gastrointestinal problems. The dominance of malaria-related visits highlights the need for continued malaria prevention strategies, health education, early diagnosis, and effective treatment services within the university community.

Table 3: Satisfaction with Management of Common Student Illnesses

Response	Frequency	Percentage (%)
Satisfactory	222	39.0
Not satisfactory	235	41.3
Somewhat satisfactory	112	19.7
Total	569	100.0

Table 3 presents the respondents' level of satisfaction with the management of common student illnesses at the clinic. The results indicate that 235 respondents (41.3%) reported that they were not satisfied with the management of common student illnesses. This represents the largest proportion of respondents and suggests that a considerable number of students perceived shortcomings in the quality, effectiveness, or responsiveness of the healthcare services provided. On the other hand, 222 respondents (39.0%) indicated that they were satisfied with the management of common illnesses. This shows that a substantial proportion of respondents considered the clinic's services adequate in addressing their health concerns. However, the difference between those who were satisfied and those who were not satisfied was relatively small, indicating varying experiences among students. Furthermore, 112 respondents (19.7%) reported being somewhat satisfied with the management of common illnesses. This group may represent students who received treatment but experienced some limitations in areas such as service delivery, waiting time, availability of medication, healthcare personnel interaction, or treatment outcomes. The findings indicate that although some respondents were satisfied with the clinic's management of common student illnesses, a slightly higher proportion expressed dissatisfaction. This suggests the need for improvement in healthcare service delivery, including strengthening diagnostic and treatment procedures, improving availability of medical resources, enhancing patient-provider communication, and addressing factors that influence students' satisfaction with clinic services.

Table 4: Perceived Barriers to Accessing and Utilising the University Clinic

Barrier	Response	Frequency	Percentage (%)
Long waiting time	Strongly agree	212	37.3
	Agree	211	37.1
	Disagree	74	13.0
	Strongly disagree	10	1.8
	I do not know	62	10.9
	Total	569	100
Inadequate staffing	Strongly agree	176	30.9
	Agree	198	34.8
	Disagree	100	17.6
	Strongly disagree	26	4.6
	I do not know	69	12.1
	Total	569	100
Cost of healthcare	Strongly agree	140	24.6
	Agree	222	39.0
	Disagree	122	21.4
	Strongly disagree	34	6.0
	I do not know	51	9.0
	Total	569	100
Shortage of essential drugs/medical supplies	Strongly agree	156	27.4
	Agree	206	36.2
	Disagree	114	20.0
	Strongly disagree	26	4.6
	I do not know	67	11.8
	Total	569	100
Inadequate diagnostic equipment	Strongly agree	170	29.9
	Agree	242	42.5
	Disagree	74	13.0
	Strongly disagree	22	3.9
	I do not know	61	10.7
	Total	569	100
Lack of privacy during consultation	Strongly agree	138	24.3
	Agree	220	38.7
	Disagree	124	21.8
	Strongly disagree	20	3.5
	I do not know	67	11.8
	Total	569	100

Table 4 presents the perceived barriers that affect students' access to and utilisation of the university clinic. The barriers assessed include long waiting time, inadequate staffing, cost of healthcare, shortage of essential drugs and medical supplies, inadequate diagnostic equipment, and

lack of privacy during consultation. Specifically, 212 respondents (37.3%) strongly agreed and 211 respondents (37.1%) agreed that long waiting time affects their access to healthcare services. Conversely, 74 respondents (13.0%) disagreed, while 10 respondents (1.8%) strongly disagreed. A further 62 respondents (10.9%) indicated that they did not know. For inadequate staffing, the findings reveal that 176 respondents (30.9%) strongly agreed and 198 respondents (34.8%) agreed that insufficient healthcare personnel constitute a barrier to clinic utilisation. Meanwhile, 100 respondents (17.6%) disagreed and 26 respondents (4.6%) strongly disagreed, while 69 respondents (12.1%) were uncertain.

In terms of cost of healthcare, the results show that 140 respondents (24.6%) strongly agreed and 222 respondents (39.0%) agreed that healthcare costs limit their ability to access clinic services. However, 122 respondents (21.4%) disagreed and 34 respondents (6.0%) strongly disagreed, while 51 respondents (9.0%) did not know. This implies that although university clinic services may be subsidised, healthcare-related expenses remain a concern for some students. Concerning the shortage of essential drugs and medical supplies, the findings indicate that 156 respondents (27.4%) strongly agreed and 206 respondents (36.2%) agreed that inadequate availability of drugs and supplies affects clinic utilisation. On the other hand, 114 respondents (20.0%) disagreed and 26 respondents (4.6%) strongly disagreed, while 67 respondents (11.8%) were unsure. This suggests that limited access to necessary medications and medical materials may reduce students' confidence in the clinic's ability to provide effective treatment.

Regarding inadequate diagnostic equipment, the table shows that this was one of the most commonly reported barriers. A total of 170 respondents (29.9%) strongly agreed and 242 respondents (42.5%) agreed that inadequate diagnostic facilities affect healthcare access. In contrast, 74 respondents (13.0%) disagreed and 22 respondents (3.9%) strongly disagreed, while 61 respondents (10.7%) indicated that they did not know. The finding highlights concerns about the clinic's capacity to conduct timely and accurate diagnosis due to limited diagnostic resources. Finally, regarding lack of privacy during consultation, the results reveal that 138 respondents (24.3%) strongly agreed and 220 respondents (38.7%) agreed that inadequate privacy represents a barrier to accessing healthcare services. However, 124 respondents (21.8%) disagreed and 20 respondents (3.5%) strongly disagreed, while 67 respondents (11.8%) were uncertain. This indicates that confidentiality and privacy during medical consultations remain important concerns for some students. The findings demonstrate that the major perceived barriers to accessing and utilising the university clinic were long waiting time, inadequate diagnostic equipment, inadequate staffing, shortage of essential drugs and medical supplies, and lack of privacy during consultation. The high proportion of respondents agreeing with these challenges suggests the need for improvements in clinic infrastructure, staffing capacity, availability of medical resources, and patient-centred service delivery to enhance students' access to quality healthcare services.

Qualitative Findings

Three themes emerged from the key informant interviews: staffing and waiting time; availability of medicines and supplies; and service capacity and continuity of care. The interviews were used to explain or contextualise the survey findings rather than to estimate prevalence.

Theme 1: Staffing and Waiting Time

Informants described periods of staff pressure, particularly at peak times, as a contributor to longer waiting periods.

"There are moments when the clinic feels understaffed, especially during peak hours or emergencies. While it doesn't completely block access, it can cause longer waiting times." (KII-1, FUK, 2025).

Another informant similarly reported: “Staff shortages significantly affect healthcare access. There are not enough doctors and nurses to handle the student population efficiently, leading to long waits and overworked staff.” (KII-2, FUK, 2025). These accounts support the quantitative finding that 65.7% of respondents strongly agreed or agreed that inadequate staffing limits access.

Theme 2: Availability of Medicines and Supplies

Medicine availability was also identified as a concern. One informant stated: “Sometimes students could not get the prescribed medication at the clinic because it was out of stock. This makes it harder to rely fully on the clinic, and [students] often have to buy drugs elsewhere.” (KII-3, FUK, 2025). This supports the survey finding that 63.6% of respondents strongly agreed or agreed that shortages of essential drugs and medical supplies hinder clinic utilisation.

Theme 3: Service Capacity and Continuity of Care

An informant also described limitations in the clinic’s capacity for chronic disease management: “The clinic is not fully equipped for chronic disease management. Monitoring and follow-ups are inconsistent, and patients may have to seek external care for specialized treatment. There is a need for better resources and structured care plans.” (KII-4, FUK, 2025). This quotation is presented as an informant perception and is not used to infer the prevalence or quality of chronic disease management among students.

Table 5: Age and Healthcare Utilisation

Age (years)	Utilised (n)	Not utilised (n)	Total (n)	Utilised (%)	Not utilised (%)
16–20	116	28	144	80.6	19.4
21–25	307	34	341	90.0	10.0
26 and above	82	2	84	97.6	2.4
Total	505	64	569	88.8	11.2

$\chi^2(2) = 16.864$, $p < .001$; Cramér’s $V = 0.172$.

Table 5 shows a significant association between age and healthcare utilisation among the respondents. Overall, 88.8% (505 out of 569) of participants had utilised healthcare services, while 11.2% (64) had not. Healthcare utilisation increased consistently with age, as respondents aged 16–20 years recorded the lowest utilisation rate of 80.6% (116), followed by those aged 21–25 years with 90.0% (307), while respondents aged 26 years and above had the highest utilisation rate of 97.6% (82). Conversely, non-utilisation was highest among the youngest age group (16–20 years) at 19.4%, compared with 10.0% among those aged 21–25 years and only 2.4% among respondents aged 26 years and above. The chi-square test result ($\chi^2(2) = 16.864$, $p < .001$) indicates that the observed differences in healthcare utilisation across age groups are statistically significant, suggesting that age influences healthcare-seeking behaviour among respondents. The Cramér’s V value of 0.172 indicates a weak association, meaning that although age has a significant relationship with healthcare utilisation, other factors may also contribute to variations in healthcare-seeking patterns.

Table 6: Gender and Healthcare Utilisation

Gender	Utilised (n)	Not utilised (n)	Total (n)	Utilised (%)	Not utilised (%)
Male	255	32	287	88.9	11.1
Female	250	32	282	88.7	11.3
Total	505	64	569	88.8	11.2

$\chi^2(1) = 0.006$, $p = .941$.

Table 6 presents the relationship between gender and healthcare utilisation among the respondents. The findings indicate that healthcare utilisation was almost identical between males and females. Among male respondents, 88.9% (255 out of 287) had utilised healthcare services, while 11.1% (32) had not. Similarly, 88.7% (250 out of 282) of female respondents reported healthcare utilisation, whereas 11.3% (32) had not utilised healthcare services. The chi-square test result ($\chi^2(1) = 0.006$, $p = .941$) shows that there was no statistically significant association between gender and healthcare utilisation. This implies that male and female respondents demonstrated similar healthcare-seeking patterns, suggesting that gender did not significantly influence the likelihood of utilising healthcare services within the study population.

Table 7: Level of Study and Healthcare Utilisation

Level	Utilised (n)	Not utilised (n)	Total (n)	Utilised (%)	Not utilised (%)
100 level	134	18	152	88.2	11.8
200 level	114	18	132	86.4	13.6
300 level	74	8	82	90.2	9.8
400 level	183	20	203	90.1	9.9
Total	505	64	569	88.8	11.2

$\chi^2(3) = 1.387$, $p = .709$.

Table 7 presents the association between level of study and healthcare utilisation among the respondents. The results show that healthcare utilisation was generally high across all levels of study, with minor variations observed. Students in the 100 level recorded a utilisation rate of 88.2% (134 out of 152), while 200-level students had the lowest utilisation rate of 86.4% (114 out of 132). The highest utilisation rates were observed among 300-level students at 90.2% (74 out of 82) and 400-level students at 90.1% (183 out of 203). The proportion of respondents who did not utilise healthcare services ranged from 9.8% among 300-level students to 13.6% among 200-level students. The chi-square test result ($\chi^2(3) = 1.387$, $p = .709$) indicates that there was no statistically significant association between level of study and healthcare utilisation. This suggests that students' academic level did not significantly influence their healthcare-seeking behaviour, as respondents across different levels demonstrated similar patterns of healthcare utilisation.

Table 8: Place of Residence and Healthcare Utilisation

Residence	Utilised (n)	Not utilised (n)	Total (n)	Utilised (%)	Not utilised (%)
University hostel	113	15	128	88.3	11.7
Off-campus	391	50	441	88.7	11.3
Total	504	65	569	88.6	11.4

$\chi^2(1) = 0.014$, $p = .905$.

Table 8 shows the relationship between place of residence and healthcare utilisation among the respondents. The findings indicate that healthcare utilisation was high among both students residing in university hostels and those living off-campus. Among respondents living in university hostels, 88.3% (113 out of 128) had utilised healthcare services, while 11.7% (15) had not. Similarly, 88.7% (391 out of 441) of off-campus residents reported healthcare utilisation, whereas 11.3% (50) had not utilised healthcare services. The difference in utilisation rates between the two groups was minimal. The chi-square test result ($\chi^2(1) = 0.014$, $p = .905$) indicates that there was no statistically significant association between place of residence and healthcare utilisation. This suggests that living arrangement, whether within the university hostel or off-campus, did not

significantly influence healthcare-seeking behaviour among the respondents. The similar utilisation patterns may indicate that students had comparable access to healthcare services regardless of their residential location.

Discussion

The present study examined healthcare utilisation among undergraduate students of Federal University of Kashere (FUK), focusing on common illnesses prompting clinic attendance, barriers affecting access and utilisation, and the influence of demographic characteristics on healthcare-seeking behaviour. The findings provide institution-specific evidence on student healthcare patterns and are consistent with previous Nigerian studies that identified illness type, service quality, availability of resources, and demographic factors as important influences on university healthcare utilisation. Previous evidence indicates that university health centres commonly serve as first-contact facilities for acute conditions such as malaria, fever, headache, and gastrointestinal complaints, while challenges related to medicines, staffing, waiting time, and perceived quality of services may affect continued utilisation (Bello *et al.*, 2024; Orok *et al.*, 2024; Wankasi *et al.*, 2024).

The study found that malaria/fever was the leading condition responsible for clinic visits, accounting for 62.4% of reported cases, followed by headache/migraine (22.1%) and gastrointestinal problems (10.5%). This finding suggests that the healthcare needs of students were largely driven by acute infectious and symptomatic illnesses. The predominance of malaria-related complaints is consistent with previous findings among Nigerian university students. For instance, Bello *et al.* (2024) reported malaria/fever as one of the major reasons students accessed university health services, alongside headache and gastrointestinal complaints. Similarly, Wankasi *et al.* (2024) identified malaria, fever, headache, and abdominal complaints among conditions presented at a university sick bay. These similarities indicate that malaria and other common acute illnesses remain important contributors to student healthcare demand within Nigerian higher institutions.

The study revealed mixed perceptions regarding the management of common illnesses at the university clinic. Although 39.0% of respondents expressed satisfaction, 41.3% reported dissatisfaction, while 19.7% were somewhat satisfied. This finding indicates that utilisation of healthcare services does not necessarily translate into positive perceptions of service quality. A student may access healthcare services but remain dissatisfied due to issues related to waiting time, availability of drugs, communication with healthcare providers, or treatment outcomes. This result agrees with previous Nigerian studies showing that perceived service conditions influence students' experiences and willingness to use university healthcare facilities. Orok *et al.* (2024) examined students' perceptions of healthcare services and reported that service-related factors influenced healthcare utilisation experiences. Similarly, recent evidence has identified medicine availability, staffing, facilities, and delays as important factors affecting students' perceptions of university healthcare services (Bello *et al.*, 2024; Wankasi *et al.*, 2024).

The study identified several barriers affecting healthcare utilisation, including long waiting time, inadequate staffing, cost of healthcare, shortage of essential drugs, inadequate diagnostic equipment, and lack of privacy during consultation. These findings demonstrate that healthcare utilisation among students is influenced not only by illness occurrence but also by enabling factors within the healthcare system. Long waiting time emerged as one of the most important barriers, with 74.4% of respondents agreeing or strongly agreeing that it affected access to healthcare services. This finding is comparable with previous studies reporting delays and service organisation challenges as factors affecting university healthcare utilisation. Bello *et al.* (2024), Orok *et al.* (2024), and Wankasi *et al.* (2024) similarly identified waiting time, staffing limitations,

and service conditions as concerns affecting students' healthcare experiences. The qualitative findings further strengthened this result, as informants explained that staff pressure during peak periods contributed to longer waiting times.

The study found that 63.6% of respondents perceived shortages of essential drugs and medical supplies as a barrier to clinic utilisation. This indicates that availability of treatment resources influences students' confidence in the university clinic. Similar findings have been reported by Wankasi *et al.* (2024), who identified medication availability as an important concern affecting sick bay utilisation among university students. Bello *et al.* (2024) also reported drug availability challenges among students accessing university healthcare services. The qualitative findings supported this result, as interview participants reported that students sometimes obtained prescribed medicines outside the clinic when drugs were unavailable.

The study found a statistically significant relationship between age and healthcare utilisation, with older students demonstrating higher utilisation rates. Respondents aged 26 years and above had the highest utilisation rate (97.6%), compared with 90.0% among those aged 21–25 years and 80.6% among those aged 16–20 years ($\chi^2(2) = 16.864$, $p < .001$). This suggests that age may influence healthcare-seeking behaviour among students. The finding may be explained by increasing independence, health awareness, and ability to make personal healthcare decisions as students become older. Previous literature suggests that demographic characteristics such as age may influence healthcare utilisation through differences in health knowledge, decision-making ability, and perceived healthcare needs. Within Andersen's model, age represents a predisposing factor that may shape an individual's likelihood of seeking healthcare. Gender was not significantly associated with healthcare utilisation in this study. Male and female respondents recorded almost identical utilisation rates, with males at 88.9% and females at 88.7% ($\chi^2(1) = 0.006$, $p = .941$). This indicates that both male and female students had similar patterns of healthcare use. The study found no significant relationship between level of study and healthcare utilisation. Healthcare utilisation remained high across all academic levels, ranging from 86.4% among 200-level students to 90.2% among 300-level students ($\chi^2(3) = 1.387$, $p = .709$). This indicates that academic progression did not significantly influence students' likelihood of using healthcare services.

Conclusion

This study concludes that healthcare utilisation among undergraduate students of Federal University of Kashere was generally high, with the majority of respondents accessing the university clinic when experiencing health problems. The findings showed that malaria/fever was the leading condition responsible for clinic visits, followed by headache/migraine and gastrointestinal-related illnesses, indicating that acute and preventable health conditions remain the major causes of healthcare demand among students. Despite the relatively high level of healthcare utilisation, the study revealed important concerns regarding the quality and effectiveness of healthcare services provided by the university clinic. Students expressed mixed levels of satisfaction with the management of common illnesses, with a slightly higher proportion reporting dissatisfaction compared with those who were satisfied. This suggests that while the clinic remains an important source of healthcare, improvements are required in service delivery, patient experience, and treatment outcomes. The study further identified several barriers affecting effective utilisation of the university clinic, including long waiting time, inadequate staffing, shortage of essential medicines and medical supplies, inadequate diagnostic equipment, healthcare costs, and lack of privacy during consultations. These challenges may reduce students' confidence in the healthcare system and influence their willingness to rely on the university clinic for future

healthcare needs. The findings also demonstrated that demographic characteristics had varying effects on healthcare utilisation. Age was significantly associated with healthcare utilisation, with older students showing higher utilisation rates compared with younger students. However, gender, level of study, and place of residence were not significantly associated with healthcare utilisation, indicating that these factors did not substantially influence students' healthcare-seeking behaviour within the study setting.

Limitations

The study was conducted in a single university, which limits the generalisability of the findings to other universities. Healthcare utilisation and perceived barriers were self-reported and may therefore be affected by recall or response bias. The cross-sectional design also limits causal interpretation of the observed demographic association. In addition, the qualitative component involved only four informants and should be interpreted as contextual evidence rather than representative evidence of all clinic personnel or students.

Recommendations

1. The university management should improve the capacity of the university health centre by increasing healthcare staffing and reducing waiting time.
2. The university health centre should strengthen the availability of essential medicines, medical supplies, and diagnostic facilities.
3. The university should improve the quality of healthcare services to enhance student satisfaction.
4. The university should strengthen preventive healthcare programmes, particularly for malaria and other common illnesses among students.
5. The university health centre should establish regular monitoring and evaluation mechanisms to assess healthcare service performance.

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