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Patterns of health-seeking behaviour and their association with proximity to National Health Insurance Scheme-accredited facilities among undergraduates in south-western Nigeria: a multicentre cross-sectional study

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Abstract

Background

Among university students, health-seeking behaviour often oscillates between informal and formal care. This study examined whether proximity to a National Health Insurance Scheme accredited facility influences care-seeking among undergraduates in South-Western Nigeria.

Methods

We conducted a descriptive cross-sectional, multi-centre survey across four federal universities (University of Ibadan, University of Lagos, Obafemi Awolowo University, and Federal University of Technology Akure). A structured, pretested online questionnaire captured socio-demographics, patterns of formal/informal care use, and factors shaping choices. Associations were tested using Chi-square at $\alpha=0.05$.

Results

Of 417 respondents, 90.2% reported at least one illness/symptom while in school. Informal responses were common: resting/doing nothing (59.6%), self-medication (54.3%), buying from patent medicine vendors (20.5%), spiritual practices (12.5%), and herbs (6.9%). Nevertheless, 57.7% visited orthodox facilities when symptomatic, indicating switching between sources. Across options, accessibility outweighed affordability in driving choices (e.g., patent vendors 76.6% and internet/self-care 75.3% cited accessibility). Formal-care use was encouraged by perceived effectiveness (55.2%) and seriousness of symptoms (53.2%) but discouraged by perceived service quality (41.3%) and long waits (38.5%). Religion, institution, and academic level were significantly associated with formal care use, whereas proximity to an NHIS-accredited facility was not ($p=0.137$). Awareness of institutional insurance (56.4%) and understanding of costs/coverage (22.1%) were modest; long waiting time was the dominant barrier to using the scheme.

Conclusions

Proximity to an accredited facility alone did not increase formal care use. For students, convenience and service experience (shorter queues, reliable drugs, competent and timely care) appear more determinative than distance or nominal coverage. Strengthening service efficiency and targeted insurance literacy may better shift behaviour than siting alone.

Keywords: Health-seeking behaviour; National Health Insurance Scheme (NHIS); Undergraduates; Proximity; Accessibility

INTRODUCTION

Good health forms one of the important bedrocks of life. Good health-seeking behaviour is essential for healthy living. Individuals' health status is grossly dependent on their health-seeking behaviour. Health-seeking behaviour refers to "any action or inaction undertaken by individuals who perceive themselves to have a health problem or to be ill to find an appropriate remedy" [1]. On the other hand, health behaviour is more encompassing than health-seeking behaviour. Health behaviour connotes "the activity undertaken by people to maintain or enhance their health, prevent health problems, or achieve a positive body image" [2]. The health behaviour of individuals extends beyond seeking remedies for ailments.

Health-seeking behaviour is not rigid; it is influenced by myriads of factors. The common factors that influence health-seeking behaviour are socioeconomic factors, cost of treatment, insurance coverage, sociocultural factors, educational status, distance to healthcare facility, the severity of illness, and quality of healthcare facilities [3-5]. Individuals are often discouraged to use formal healthcare services due to high cost of treatment, lack of health insurance and far distance to healthcare facilities. This in turn encourages the patronage of informal healthcare services such as patent drug dealers, community pharmacists, and self-medication [4].

Health insurance is crucial to ensure all individuals access formal healthcare services without the risk of financial hardship. By eliminating the risk of financial hardship, health insurance encourages massive utilisation of formal healthcare services, especially in developing countries [6]. In developing and transitional countries, there is outrageous out-of-pocket spending. About 90% of households pay out-of-pocket for the purchase of medicine [7]. The cost of medicine represents between 20 – 60% of the total health spending in these countries [8]. To keep up with their out-of-pocket spendings, individuals in these countries may need to use their savings, sell their assets, procure loans or borrow from relatives [6]. Health insurance is indispensable in the protection against financial hardship, most especially in developing and Sub-Saharan African countries where there is insufficient allocation of resources to healthcare [9-12].

Health-seeking behaviours differ for each population segment. Specific population segments have more appropriate health-seeking behaviours [13]. Young people represent a population segment with low morbidity and mortality. However, they tend to have inappropriate health-seeking behaviour. They often engage in risky health behaviours such as drug abuse, smoking, and unsafe sexual behaviours [14]. Also, their desire to be autonomous makes them more likely to self-medicate [15]. Ajaegbu and Ubochi [3] reported that young people have difficulty seeking formal healthcare and will not seek formal healthcare unless their pain becomes unbearable. This makes it imperative to investigate the health-seeking behaviour of young people and the various factors that influence it. This study aims to determine the pattern of health-seeking behaviours and how proximity to a National Health Insurance Scheme (NHIS) accredited health facility influences the health-seeking behaviours of undergraduates in Southwestern Nigeria.

METHODS

Study design, population and setting

This descriptive cross-sectional multi-centre study was conducted in four federal universities in Nigeria. These universities are University of Ibadan, University of Lagos, Obafemi Awolowo University and Federal University of Technology Akure. These universities are located in the Southwestern region of Nigeria. Nigeria is divided into six geopolitical zones, namely: North Central, North East, North West, South East, South-South and South West. The South West is predominantly Yoruba.

Undergraduates of University of Ibadan, University of Lagos, Obafemi Awolowo University and Federal University of Technology Akure. University of Ibadan was established in 1948 in Ibadan, Oyo State, Nigeria. It runs its academic programmes through sixteen faculties with other academic units and institutes. Obafemi Awolowo University was founded in 1962 at Ile-Ife, Osun State, Nigeria. It runs its academic programmes through eleven faculties, with nine institutes and academic units. University of Lagos was established in 1962 in the then capital city of Lagos State, Nigeria. It runs its academic programmes through twelve faculties and five institutes. Federal University of Technology Akure was established in Akure, Ondo State, Nigeria in 1981. It runs its academic programmes through nine faculties with a College of Medicine.

A minimum sample size of 422 was calculated using a z-score of 1.96 given a confidence interval of 95%, an assumed prevalence of 50% and a margin of error of 5% and an attrition rate of 10%. The selection of participants was done through the quota sampling technique. Equal number of participants was allocated to each university.

Inclusion and exclusion criteria

The study included all second year to final-year undergraduates from the four universities. First-year undergraduates were excluded because they may not have been registered under the health insurance scheme of their universities at the time of conducting the study.

Data collection and survey instrument

Data were collected with a self-administered structured online questionnaire using convenient sampling. The questionnaire was written in English language, the language of instruction in these universities. The questionnaire (in supplementary file) was adapted from the study of Ajaegbu & Ubochi [3]. The questionnaire had the following sections: respondents' characteristics, health seeking behaviour, factors affecting health seeking behaviour, factors influencing students' choice/use of formal healthcare service and awareness about the institution's health insurance scheme. The questionnaire was pretested among 20 undergraduates and corrections were made where necessary. The questionnaire was then administered to undergraduates in the four selected universities.

Healthcare-seeking behaviour was categorised into formal and informal, based on the healthcare service provider. Healthcare-seeking behaviour was defined as formal when healthcare service is sought from a qualified and professional healthcare service provider in an orthodox healthcare facility which may be private or public. Healthcare-seeking behaviour was defined as informal when healthcare service is sought from any other source outside of a qualified and professional healthcare provider. These sources may include chemists, patent medicine vendors, traditional healers, family members, friends, self-medication etc.

Factors that influenced the choice of informal healthcare behaviour were evaluated for each category of informal healthcare service. For formal healthcare behaviour, the factors were categorised into encouraging and discouraging factors.

Test of association was conducted between health-seeking behaviour and the independent variables. The independent variables include Age, Marital status, Religion, University of study,

Level of study, Faculty of study and Proximity to National Health Insurance Scheme accredited facility which is categorised as on-campus (within the university's premises) and off-campus (outside the university's premises). The university's NHIS-accredited facility was used as the reference.

Data analysis

The data were analysed with version 25 of Statistical Package for the Social Sciences. Categorical variables were presented in frequencies and percentages, while continuous variables were presented in means and standard deviations. The association between the dependent and independent variables were tested using Chi-square at a p-value of 0.05 as the significance level.

Ethical Approval and/or Institutional Review Board (IRB)

Ethical approval for this study was obtained from the University of Ibadan Ethics Committee (Approval No. UI/EC/21/0140). The research was conducted in accordance with the Declaration of Helsinki and applicable institutional and national research ethics guidelines. The study purpose was explained to all prospective participants, and informed consent was obtained before administering the questionnaire.

RESULT

There were 417 completed responses from the data collection process across the 4 institutions. Table 1 shows that 47% and 47.7% of the respondents were between 18 – 21 and 22 – 25 years respectively. The other age groups represent 5.3% of the respondent. Nearly all the respondents (99.3%) are single. The most practised religion is Christianity (81.1%). The highest response was from students in the 400 level (25.7%) and 500 level (25.4%), while the least response was from students in 600 level. Also, responses from the Clinical Sciences, Nursing, and health related faculties made up two-fifth of the total responses received. Sixty of the respondents (14.4%) live within the school environment.

Table 1: Respondents' Characteristics

	Frequency (n=417)	%
Age		
21 and below	201	48.2
22-25	199	47.7
26 and above	17	4.1
Marital Status		
Married	2	0.5
Separated	1	0.2
Single	414	99.3
Religion		
Christianity	338	81.1
Islam	71	17.0
Others	8	1.9
Institution		
Federal University of Technology, Akure	82	19.7
Obafemi Awolowo University	99	23.7
University of Ibadan	119	28.5
University of Lagos	117	28.1
Proximity to NHIS health centre		

On-campus	357	85.6
Off-campus	60	14.4
Level		
200	81	19.4
300	102	24.5
400	107	25.7
500	106	25.4
600	21	5.0
Faculty/School		
Clinical Sc., Nursing, Public health	168	40.3
Vet. Med., Pharmacy, Agric., Science	91	21.8
Art, Law, Education, Social Sc.	54	12.9
Engineering, Technology, Architecture	56	13.4
Business, Admin, Economics, Communication	16	3.8
Environmental Sc., Earth & Mineral Sc.	32	7.7

As shown from Table 2 below, 41 (9.8%) of the students claimed they have not experienced any illness or symptom of disease while in school and the rest (376 [90.2%]) had experienced at least one symptom or illness.

Table 2: Frequency of Participants who had experienced any illness/disease symptoms in school

Ever had any illness or symptom of disease while in school	Frequency (n=417)	%
No	41	9.8
Yes	376	90.2

Figure 1 below shows the distribution by frequency of illnesses/symptoms experienced by the students. It shows that malaria and headache were the commonest complaints by the students.

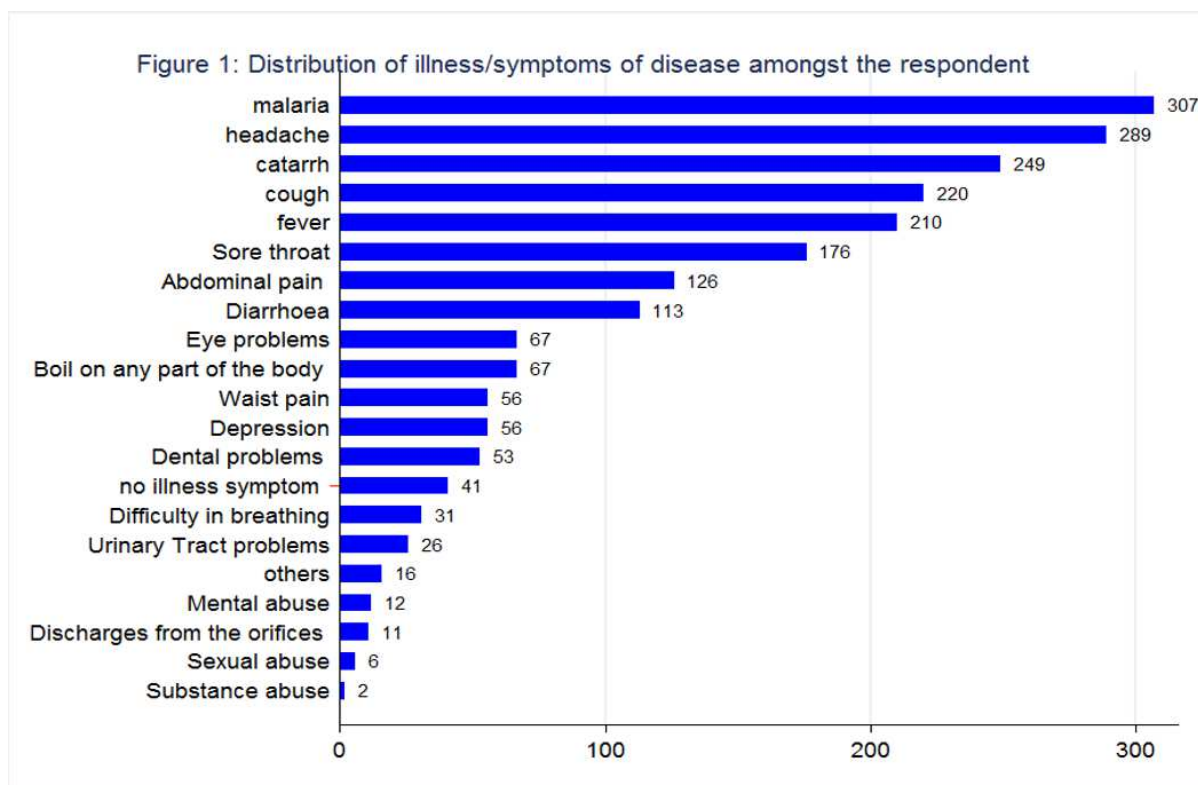


Table 3 shows the reactions/actions students take when they notice symptoms or illnesses and Table 4 show when students think medical attention should be sought from formal healthcare service

Table 3: Respondents' reaction to the experienced illnesses or symptoms while in

	Frequency (n = 376)	%
rested/did nothing	224	59.6
used spiritual tools	47	12.5
took herbs	26	6.9
self-medicated	204	54.3
used the internet	53	14.1
went to a patent medicine dealer	77	20.5
visited an orthodox health care institution (hospital)	217	57.7

Table 4: Students' thought about when to seek formal healthcare service

	Frequency (n = 376)	%
Occasionally, even without symptoms	79	21.0
When symptoms appear	136	36.2
When discomfort/ pain is unbearable	200	53.2
When my functionality is affected	154	41.0
When it distorts my facial appearance	19	5.1
When symptoms appear close to/or during exams/tests	78	20.7

Table 5 shows factors influencing students' choice of informal/non-orthodox healthcare services while Table 6 shows factors influencing the choice/use of formal healthcare service.

Table 5: Factors that are responsible for the use of informal healthcare services by students

	Frequency	%
Use of herb, n=117		
Cultural predisposition	51	43.6
Accessibility	48	41.0
Affordability	19	16.2
Saves time	16	13.7
More effective	39	33.3
Others	10	8.5
Patent Vendors, n=278		
Accessibility	213	76.6
Saves time	146	52.5
Believe the symptoms were minor	123	44.2
The drug worked for a friend	23	8.3
Cheaper	36	12.9
Others	6	2.2
Spiritual tools, n=138		
Belief that there is no medical cure	1	0.7
Against my belief to seek alternative help	2	1.4
Effective and accessible	74	53.6
Cheaper	16	11.6
Readily available	73	52.9
Other (faith)	24	17.4
Others	7	5.1
Internet, colleagues or self-medicate, n=227		
Accessible	171	75.3
Cheaper	76	33.5
No delay	171	75.3
Shyness/ confiding issues	38	16.7
Knowledge on it	190	83.7
Others	0	0.0
Rested/did nothing, n=333		
Belief that symptoms are not life-threatening	213	64.0
Lack of money	64	19.2
Belief that the symptoms are self-limiting	108	32.4
Shyness to disclose symptoms to anyone	23	6.9
Afraid of possible complications if treated	27	8.1
Lack of knowledge on where to seek help	17	5.1
Others	43	12.9

Table 6: Factors influencing Students' choice /use of formal healthcare service

	Frequency	%
Encouraging factors, n=308		
Accessibility	112	36.4
Effectiveness	170	55.2
Belief symptoms were major	164	53.2
Competency of health workers	113	36.7

Cheaper	25	8.1
Others	5	1.6
Factors discouraging formal n=109		
Quality of service provided	45	41.3
Farness from the hospital	29	26.6
Affordability of service	31	28.4
Prompt attention	42	38.5
Readily available drugs	21	19.3
Politeness & courtesy of health worker	0	0.0
Confidentiality	8	7.3
Others	10	9.2

Table 7 below shows the association between the sociodemographic characteristics of respondents and their health-seeking behaviour. Out of the five selected variables, three variables (religion, university and academic level) had significant associations with the use of orthodox health institution (hospital). Students at higher academic levels used more orthodox health institutions than their junior colleagues. There is no significant association between proximity to orthodox centre and the use of formal healthcare services.

Table 7: Association between formal healthcare seeking behaviour and socio-demographic characteristics of the respondents

Variable	Do you visit an orthodox health institution (hospital) when ill		χ^2	<i>p</i> -value
	No Frequency (%)	Yes Frequency (%)		
Age				
21and Below	55 (27.4)	146 (72.6)	0.49	0.784
22-25	49 (24.6)	150 (75.4)		
26 and Above	5 (29.4) ^a	12 (70.6)		
Marital Status				
Married	0 (0.0) ^a	2 (100.0) ^a	1.07	0.586
Separated	0 (0.0) ^a	1 (100.0) ^a		
Single	109 (26.3)	305 (73.7)		
Religion				
Christianity	89 (26.3)	249 (73.7)	11.42	0.003*
Islam	14 (19.7)	57 (80.3)		
Others	6 (75.0) ^a	2 (25.0)		
University				
Federal University of Technology, Akure	33 (40.2)	49 (59.8)	13.99	0.003*
Obafemi Awolowo University	27 (27.3)	72 (72.7)		
University of Ibadan	20 (16.8)	99 (83.2)		
University of Lagos	29 (24.8)	88 (75.2)		
Proximity to NHIS health centre				
On-campus	98 (27.5)	259 (72.5)	2.21	0.137
Off-campus	11 (18.3)	49 (81.7)		
Level				
200	31 (38.3)	50 (61.7)	13.10	0.011*
300	31 (30.4)	71 (69.6)		

400	24 (22.4)	83 (77.6)		
500	21 (19.8)	85 (80.2)		
600	2 (9.5)	19 (90.5)		
Faculty				
Faculty of health College of medicine (MBBS & BDS)	14 (23.7)	45 (76.3)	17.81	0.04*
Faculty of agriculture	19 (16.8)	94 (83.2)		
Faculty of arts	7 (53.9)	6 (46.2)		
Faculty of education	5 (25.0)	15 (75.0)		
Faculty of engineering	3 (30.0)	7 (70.0)		
Faculty of environmental science/tech	11 (20.4)	43 (79.6)		
Faculty of pharmacy	10 (30.3)	23 (69.7)		
Faculty of social sciences	16 (42.1)	22 (57.9)		
Faculty of science	10 (32.3)	21 (67.7)		
	14 (30.4)	32 (69.6)		

*. Statistically significant associations

^a. One expected cell count less than 5

Table 8 below shows respondents' awareness of their institutions' health insurance scheme. Of 417 respondents, 54.4% claimed they don't have any form of health insurance and 43.7% claimed they are not aware of their institutions' health insurance scheme. Of the 56.4% who were aware of the school's health insurance, 22.1% know how much they pay for the insurance and a similar proportion (22.1%) know how much of their medical cost is covered by the insurance. However, despite the insurance scheme 55.3% of the respondents were not encouraged to use the health facilities due to prolonged waiting time (80.8%). Amongst the students (44.7%) who were aware of the health insurance scheme and who made use of it, nearness to the facility was the most common reason for using it (79.0%).

Table 8: Awareness of respondents on their institutions' health insurance scheme

	Frequency	%
Do you have a health insurance? n=417		
No	227	54.4
Yes	190	45.6
Is it a private or public health insurance? n= 223		
Private	30	13.5
Public	193	86.5
Are you aware of your university's health insurance scheme for students? n=417		
No	182	43.7
Yes	235	56.4
If yes, are you aware of how much you pay for the insurance? n=235		
No	183	77.9
Yes	52	22.1
Are you aware of how much of your medical cost is covered by the insurance? n=235		

No	183	77.9
Yes	52	22.1
Has the scheme made you visit the University's health centre more? n=235		
No	130	55.3
If not, what factors prevent you from using it?		
- Prolonged waiting time	105	80.8
- Lack of competent doctors	44	33.8
- Accessibility (Farness)	19	14.6
- Others	16	12.3
Yes	105	44.7
If yes to above, what factors have helped you		
- Accessibility (Nearness)	83	79.0
- Cheaper	63	60.0
- Faster	19	18.1
- Others	2	1.9
If all these factors are improved, would you be encouraged to visit the hospital? n=130		
No	16	12.3
Yes	114	87.7
If all these factors are improved, would you be encouraged to pay more for the insurance scheme? n=130		
No	37	28.5
Yes	93	71.5

DISCUSSION

In this study, informal health-seeking behaviour was found to be pervasive among the students. A high proportion of the students rest/do nothing (59.6%) or self-medicate (54.3%). A proportion of 14.1% treats themselves based on information obtained from the internet or their colleagues. Similar findings have been reported in other studies [3,4, 16,17]. However, Ajaegbu and Ubochi [3] reported a lower prevalence for students who rest or do nothing (24.1%), and those who self-medicate (13.4%) (compared with 59.6% and 54.3% respectively in this study). These differences can be attributed to the participant's residence and the plurality of the choice of healthcare services. All the participants in the study by Ajaegbu and Ubochi [3] stayed within the school premises (close to a health facility) while some of the participants in our study stayed outside the school premises. Also, this other study allowed just one choice of healthcare service, while our study allowed multiple choices of healthcare services. The plurality of choice allowed by our study is more representative of students' choice of healthcare service. Students do not utilise a single form of healthcare service every time they are ill.

Also, we found that 77 students (20.5%) bought drugs from patent medicine dealers, 47 (12.5%) engaged in spiritual practice/tools, and 26 (6.9%) took herbs when they experienced symptoms or illness. Other studies conducted among both students and civil servants have reported similar findings [3,4, 18]. Easy accessibility had a remarkable influence on students' patronage of patent medicine dealers (76.6%), engaging in spiritual practice/tools (53.6%) and

using herbs (41.0%). In addition, the majority of the students (64.0%) rested/did nothing because they believed their symptoms or illnesses were not life-threatening. The least reason why students rested/did nothing was that they were shy to disclose their symptoms (6.9%) or they lack the knowledge of where to seek help (5.1%). This is contrary to other studies that have reported the lack of knowledge of where to seek help, confidentiality concern and fear of embarrassment as the most common reasons why students use informal healthcare services [5,15]. Our studied population knew where to seek help yet a stunning proportion utilise informal healthcare services. This may be attributed to the presence of other dominant factors that incentivise students' choice of informal healthcare service.

The students in this study sought more formal healthcare services (57.7%) than participants in other studies, the reported prevalence in these studies ranged between 22.8% – 25% [3,4]. However, it was less than the prevalence reported for Civil servants (63.1%) by Latunji and Akinyemi [13]. Our lower prevalence can be attributed to a difference in the studied population. Our studied population were youths while the population studied by Latunji and Akinyemi [13] were adults. Young tend to have inappropriate health-seeking behaviour [14]

Despite informal healthcare service being the most prevalent among our studied population, the prevalence of formal healthcare service utilisation was above average. This showed the switching nature of students' health-seeking behaviour. Due to their access to more than one form of healthcare service, students often seek more than one form of healthcare service. This switching nature in healthcare service utilisation has been reported by other studies. Afolabi et. al. [4] and Nyamonogo [19] reported it in their studied population.

In this study, accessibility was more influential than affordability in deciding student's choice of healthcare. Students who used herbs due to accessibility were 41.0% compared with 16.2% due to affordability; 76.6% patronised patent medicine dealers due to accessibility compared with 12.9% due to affordability; 53.6% used spiritual tools due to accessibility compared with 11.6% due to affordability; 75.3% consulted their colleagues, the internet or self-medicate due to accessibility compared with 33.5% due to affordability. This showed that students' choice of healthcare service was more influenced by accessibility rather than affordability. When in need of healthcare service, the students were more concern about what is readily accessible rather than what is affordable. The students were more inclined towards forms of healthcare services that were readily accessible. This finding is in tandem with other studies [5,13,20] that have reported accessibility as a major factor affecting the choice of healthcare service. However, it disagrees with the report of Afolabi et. al. [4] which stated that accessibility is not a factor that influenced the choice of healthcare service. Accessibility in the study by Afolabi et. al. was considered only in terms of location while accessibility in this study was considered in terms of ease of using the healthcare service (which includes time spent). Also, in contrast with other studies [4, 5, 20-22], affordability did not rank as an important factor that dictates the choice of healthcare service. This maybe because the common symptoms or illnesses reported in this study can be treated with cheap over the counter medication.

Factors that were found to encourage students to use formal healthcare services were effectiveness (55.2%), the belief that symptoms were serious (53.2%), competency of health workers (36.7%), nearness to the hospital (36.4%), and cheaper cost (8.1%). The belief that symptoms were serious ranked the second commonest factor that encouraged students to use formal healthcare services. The following factors discouraged students from using formal healthcare services: quality of service provided (41.3%), prompt attention (38.5%), affordability of service (28.4%), farness from the hospital (26.6%), readily available drugs (19.3%) and confidentiality (7.3%). This is synonymous with findings in another study that has

reported protracted waiting time as a major barrier discouraging the use of formal healthcare services among students [4].

There was no association between seeking formal healthcare service and proximity to a national health insurance scheme accredited health facility. This can be attributed to the fact that undergraduates in the southwestern region of Nigeria are more concerned about accessibility and convenience than quality which a formal healthcare service may provide. Also, inadequate knowledge about the health insurance in their institution's health facilities may also be another contributing factor. Only 56.4% were aware of their institution's health insurance scheme for students, and only 22.1% were aware of how much of their medical costs was covered by the insurance or how much they pay for the insurance. The Nigerian Tertiary Institutions Social Health Insurance Programme (TISHIP) cover all students in tertiary institutions, including universities, to provide affordable quality healthcare and reduce out-of-pocket expenses. However, TISHIP's effectiveness is hampered by low awareness of the program [23]. Only 44.7% of the students were encouraged to use the hospital due to health insurance. It was shown in the study that level of study was statistically significant to seeking formal healthcare service with undergraduates visiting an orthodox health institution when ill rising from 61.7% among those in 200level to 90.5% among those in 600level (Table 7).

Limitations

This study has a few important caveats. First, the cross-sectional design relies on self-reported behaviours and perceptions, so we cannot infer causality and our estimates are subject to recall and social desirability bias. Second, the sample comprises undergraduates in selected universities in Southwestern Nigeria; the findings may not generalise to out-of-school youth, other regions, or older adults.

Third, our main exposure, proximity to an NHIS-accredited facility, captures only one slice of "access." We did not objectively measure travel time (e.g., by road network), transport costs, clinic hours, queue length, or digital access (e.g., teleconsultations), all of which can outweigh simple distance. Relatedly, while we defined accessibility more broadly than location in our analyses, constructs such as accessibility and affordability inevitably overlap; residual confounding by socioeconomic status, health literacy, and prior experiences with the health system is possible.

CONCLUSION

Informal care was common among undergraduates. Resting/doing nothing and self-medication were frequent yet more than half also used formal services, underscoring a switching pattern rather than a single, fixed pathway of care. Across options, accessibility (ease and speed of use) mattered more than affordability for most students. When students did choose formal care, they were prompted by perceived severity and expected effectiveness; they were deterred by long waits, perceived service quality, and drug availability. Notably, proximity to an NHIS-accredited facility did not translate into higher formal care seeking, and awareness and practical understanding of TISHIP were modest, with fewer than half feeling encouraged by insurance to use hospital care.

Taken together, these findings suggest that for young people, insurance presence without usability is insufficient. Policies that shorten queues, extend clinic hours, improve the service experience, and ensure essential medicines are in stock may shift behaviour more than simply adding accredited facilities. Universities and state health authorities should pair insurance

enrollment with active, student-centred outreach that clarifies benefits, simplifies use, and builds trust. Partnerships with patent medicine vendors and campus pharmacists could include referral cues for red-flag symptoms, while health-literacy efforts target safe self-care and when to escalate.

Future work should combine objective access metrics (travel time, operating hours, wait audits) with longitudinal or mixed-methods designs to test whether improving convenience and service quality reduces reliance on informal care. Interventions that make formal care fast, friendly, and predictable backed by clear, well-understood coverage are likely to have the greatest impact on the health-seeking behaviour of students in this setting.

Abbreviations

NHIS-National Health Insurance Scheme; TISHIP-Tertiary Institutions Social Health Insurance Programme.

Declarations

Ethics approval and consent to participate

The University of Ibadan Ethics Committee reviewed and approved the study protocol (Approval number: UI/EC/21/0140). The purpose of the study was explained to the participants, and the study questionnaire was administered to participants who consented to participate in the study.

Clinical Trial

Not applicable

Consent for publication

Not applicable. The study do not contain personal data in any form

Availability of data and material

The data supporting the findings of this study are available upon request from the corresponding author.

Competing interests

The authors do not have any conflict of interest to declare

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Authors' contributions

T.S.A., D.E.A., M.A.F., T.D.O., and P.S.A. conceived the research. T.S.A., D.E.A., M.A.F., T.D.O., A.T.R., P.S.A., O.J.O., O.A.A., and O.F.O. collected the data. D.E.A. and A.T.R. managed the data. T.S.A., D.E.A., M.A.F., T.D.O., A.T.R., P.S.A., O.J.O., O.A.A., and O.F.O. wrote the manuscript. All authors reviewed and approved the final manuscript and agree to be accountable for all aspects of the work.

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