

Students' Health Care Seeking Behaviour and Perception about Health Care Services at SD Dombo University in Resource Poor Setting in Northern Ghana

Joseph Kwame Wulifan^{1*}, Bismarck Yelfogle Guba², Darius Tuonianuo Mwingyine³

¹Department of Geography, Faculty of Social Science and Arts, SD Dombo University of Business and Integrated Development Studies, Wa, Ghana

²Department of Community Development, Faculty of Planning and Land Management, SD Dombo University of Business and Integrated Development Studies, Wa, Ghana

³Departments of Land Management, Faculty of Planning and Land Management, SD Dombo University of Business and Integrated Development Studies, Wa, Ghana

Email: *jwulifan@ubids.edu.gh, *joewully1@yahoo.com, gubabismac@ubids.edu.gh, gubabismac@yahoo.comn, dmtuonianuo@ubids.edu.gh, dmtuonianuo@gmail.com

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Abstract

Background: Students have the tendency to delay or ignore preventive health-care measures until the illness escalates. The purpose of this study is to assess the health seeking behavior of these students and to identify the factors affecting this behavior. Methods: Data was collected from a sample of 422 students at the Dombo University on heath seeking behaviour in the past 12 months, using an anonymous questionnaire. We employed a two (2) level of data analysis. At the first level we adopted the univariate analysis which included an assessment of health seeking behaviour and a sample description of the independent variables. Frequencies and percentages were used to guide the sample description. The second level employed multivariate analysis to assess the adjusted association of the explanatory variables and the outcome variable. We used binary regression model because the outcome variable was dichotomous and categorized into two (2). Thus, health seeking at the formal level and health seeking at the informal level. Results: Among the 422 students who participated in the study 86.97% (367/422) reported ever experiencing illness symptoms in the past 12 months. Of the number who experienced illness symptoms, 56.40% (207/367) indicated malaria while 21.80% (80/367) mentioned headache. A total of 83.92% (308/367) visited the hospital, Clinic or pharmacy when they detected illness but 16.08% indicated they did nothing when ill or visited the spiritualists, herbalist or used internet.

Majority of the students 50.0% (137/275) indicated that aside the University hospital, they also visited the Wa Municipal hospital when ill. One in three students say they did not visit the University hospital when ill because of long waiting time to receive medical care. From the multivariate analysis, we detected a positive association between students who ever experienced symptoms of illness and seeking formal health care assistance [OR: 1.02; CI: -4.39 - 0.37]. A negative association was however detected as students advanced in age [OR: 0.40 CI: 0.11 - 1.70], students who experienced malaria and other illness symptoms [OR: 0.32; CI: 0.22 - 1.49] and students who visited the University hospital after experiencing illness symptoms hospital [OR: 0.32; CI: 0.22 - 1.48] and seeking formal health care assistance. Conclusion: Promotional activities may be necessary to inform and educate students on ration use and access to treatment at the formal health care centers. Malaria and headache are more common among SD Dombo University students. Further studies are required to understand the causes of the malaria and headache among the students.

Subject Areas

Health Policy, Public Health

Keywords

Health Seeking Behaviour, Illness Experienced, Malaria, SD Dombo University

1. Introduction

Health seeking behaviour is a response to ill-health problem as a result of where the individual undertakes action in order to find solution to the illness problem. Student health-seeking behaviour (SHSB) is defined as the activity undertaken by individual students who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy [1] [2] [3]. University students constitute a population subgroup with lower rates of mortality, morbidity and health care use [4]. Nonetheless, they tend to have appreciable health concerns that are often hidden and/or under-diagnosed, and these may relate to unhealthy lifestyles, poor eating habits, stress, risky behaviours such as drug and alcohol abuse, unsafe sexual behaviours, smoking, and mental health issues such as depression and suicidal thoughts and attempts [3] [4] [5] [6]. Studies in many tropical countries found that malaria, headache, cold/flu and fever were the most commonly encountered illness by university students [7] [8].

University students tend to find it difficult to ask for help especially when it comes to health issues [4]. The major barriers to accessing health services among students range from socio-cultural factors to social networks, gender and economic status [3]. Others include concerns about confidentiality, embarrassment in disclosing health issues, absence of health insurance document or limited financial accessibility, low knowledge of existing services and lack of trust in

health professionals [2] [3] [5] [9] [10] [11] [12]. Relevant data on health seeking behaviour and health care use has important policy implications in every health system development [3] [9] [13].

University students differ in their choice of treatment sources depending on the type and perceived severity of illness, financial capacity, accessibility to the public health facility and demographic characteristics [1]. What students do when they experience symptoms of illness has major implications for morbidity and progression of the illness and consequences for creating a healthy university community. Extreme delays or refusal in seeking proper diagnosis and treatment can allow for a greater probability of adverse consequences [2] [9] [10] [12] [13].

Most studies on health-seeking behavior among university students were conducted in developing and under-developed countries, but such studies are limited among universities in northern Ghana [2] [3] [5] [6] [8]-[19]. However, it is important to note that, such studies aim to provide information for policy and health care providers to educate and assist this population group on appropriate health seeking behaviour which will eventually impact positively on their academic performance and quality of life. By reason of the foregoing, this study seeks to assess health care seeking behaviour and perception of health care services among SD Dombo University students.

Our study adopted Andersen's behavioral model of health-care utilization approach [20] [21]. Specifically, we employed versions of Andersen's model, which have been adopted by most studies in resource scarce settings [20] [21] [22]. **Figure 1** provides information on our adapted model employed in our study to examine student's health care seeking behaviour during the last illness. Andersen's model suggests that health-seeking behaviour of individuals is a function of three cluster of factors: predisposing, enabling and need. Predisposing factors explain the tendency to use services which include socio-demographics and Self-rated health, while enabling factors depict the means available to use health services including personal and family resources (e.g. wealth status and social support) and community resources (e.g. residence and access to health resources). Andersen maintains that although predisposing and enabling factors are necessary for health service utilization, they are not sufficient for actual use. Actual use is triggered by need, which might arise as a result of illness severity [1] [13] [20] [21].

2. Methods

2.1. Study Design and Target Population

A descriptive cross-sectional survey design targeted students of Simon Diedong Dombo University of Business and Integrated Development Studies (SDD UBIDS) from July, 2021 to September, 2021. The University is one of the prestigious Universities in Ghana and located in the North-Western part of Ghana. The University currently has eight Faculties (Faculty of Integrated Development Studies, Faculty of Planning and Land Management, School of Business, School

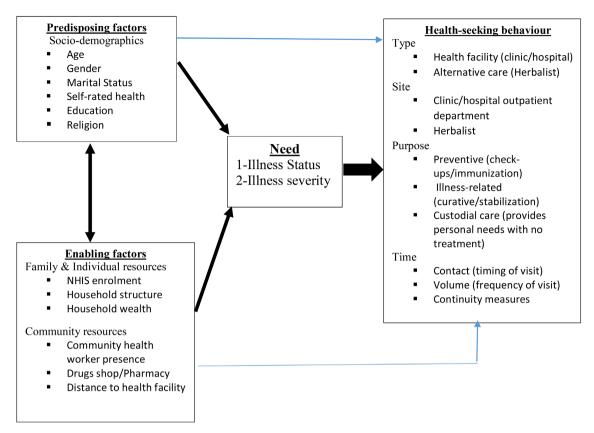


Figure 1. Adopted conceptual framework based on Andersen's behavioral model of health-care services utilization.

of Education and Life-Long Learning, Faculty of Social Science and Arts, Faculty of Public Policy and Governance, Faculty of Information and Communication Technology and Faculty of Law) with a population of 6574 undergraduates and postgraduates.

The Population of the study includes all undergraduate students from first to fourth year (level 100 to Level 400) and first year graduate students (Level 500). According to the students' record in the University Finance Directorate for 2020/21 academic year, the total population of students is 6574. A sample size of 380 was determined for the study using Yamane formulae [23] [24].

2.2. Survey Questionnaire

In view of the Covid-19 pandemic and the subsequent restrictions imposed on social distancing, an electronic software google form questionnaire was designed to reflect similar studies found in literature [13] [16] [17] [22] [25] [26] and pilot-tested with 50 course leaders. Based on the issues that emanated from the pilot, the questionnaire was refined to accommodate all the relevant issues on the subject under study. Self-identity questions were avoided in order to maintain anonymity and thus ensure the confidentiality of the research participants and their responses. The question was designed to be self-completed by research participants on their smart phones in approximately ten minutes. The google form survey questionnaire link was then generated and circulated through student

whatsApp platforms and emails. The completed and submitted questionnaires were collated in google excel sheet in a google drive.

2.3. Study Variables

The outcome variable for the study which was health seeking behaviour was derived from a series of specific questions under symptoms of illness experienced by students.

Health seeking behaviour was defined as: formal (coded as 1), when professional assistance was sought from health care services providers and or health care facilities (physicians, hospitals/clinics, pharmacy shop); informal (coded as 0), if health care assistance was sought from internet/colleagues close relations/ self-medication, spiritual source, herbal centers). A category of "no care seeking behaviour" was subsequently created for those students who experienced symptoms of illness or ill-health yet indicated they did not take any immediate health care steps (rest/did not do anything about the symptoms).

The type of health seeking behaviour recorded for each student was with reference to symptoms of illness experienced within the immediate previous 12 months whist on campus.

The independent variables considered in the study were age of student, gender, religion, marital status and level of study. Other variables were experiences of any symptoms of illness on campus in the last 12 months, the type of symptoms of illness experienced and at the stage at which the individual sought health care services.

2.4. Ethical Consideration

It was made clear to the prospective research participants that the study would be anonymous and the data would be used for only the purpose of the research. The consent of each student was sought through the google form and link that was shared on the student WhatsApp general platforms. It was also made clear that participation was optional. In designing the questionnaire through the google form, identity questions were avoided to ensure that participants are not individually identified.

2.5. Analytical Approach

We employed a two (2) level data analysis. At the first level we adopted the univariate analysis which included an assessment of health seeking behaviour and a sample description of the independent variables. Frequencies and percentages were used to guide the sample description.

The second level employed multivariate analysis to assess the adjusted association of the explanatory variables and the outcome variable. We used binary regression model because the outcome variable was dichotomous and categorized into two (2). Thus health seeking at the formal level and health seeking at the informal level.

3. Results

3.1. The Univariate Analysis

3.1.1. Socio-Demographic Characteristics

Table 1 shows the socio-demographic characteristics of the students interviewed. In total 422 students participated in the research. Of the 422 students who completed the questionnaire, 276 65.40% (276/422) were males and 34.60% (146/422) females. About two-thirds of the respondents 70.00% (295/422) were in age category 20-24 while the least age group was 40+ (0.71%). The dominant religious group among the respondents was Christianity (61.61%) and those practicing Islam were 37.68% (159/422). African traditional religion (ATR) formed the least (3.00%). Under marital status, 93.84% (396/422) reported they were single while 6.16% (26/422) indicated they were married. More than half of

Variable	Count (Total = 422)	v	
Age (years)			
15 - 19	31	7.35	
20 - 24	295	69.91	
25 - 29	76	18.01	
30 - 34	13	3.08	
35 - 39	4	0.95	
40 and above	3	0.71	
Sex			
Male	276	65.40	
Female	146	34.60	
Religion			
Christianity	260	61.61	
Islam	159	37.68	
African Traditional Religion (ATR)	3	0.71	
Marital Status			
Single	396	93.84	
Married	26	6.16	
Level of study			
100	232	54.98	
200	93	22.06	
300	66	15.64	
400	25	5.92	
500	6	1.42	

Table 1. Socio-demographic characteristics of respondents.

the respondents 54.98% (232/422) were in level 100 while the least number of respondents were in level 500 (1.42%).

3.1.2. Health Care Seeking Behaviour

Table 2 shows students health care seeking behaviour. Of the 422 students,

Table 2. Health care seeking behaviour.

Variable	Count (Total = 422)	Percentage (100%)
Illness symptoms ever experienced		
No	55	13.03
Yes	367	86.97
	422	
What Symptoms Experienced		
Headache	80	21.80
Malaria	207	56.40
Fever	20	5.45
Dental Problem	4	1.09
Eye Problem	7	1.91
Abdominal Pain	22	5.99
Discharge from Orifices	2	0.54
Cough/Catarrh	13	3.54
Boils on Part of Body	12	3.27
	367	
What Action taken when ill		
Did nothing, Spiritualist Herbs, Internet	59	16.08
Hospital, Clinic Pharmacy shop	308	83.92
	367	
At what stage do you visit Health institution		
Occasionally, even without symptoms	37	10.08
When Symptoms appear	140	38.15
When discomfort/pain is unbearable	160	43.60
When my functionality is affected	18	4.90
When it distorts my facial appearance	8	2.18
When someone I know just died from such symptoms	4	1.09
	367	
Do you have NHIS Card		
Yes	314	74.41
No	108	25.59
	422	

86.97% (367/422) reported ever experiencing ill health in the last 12 months while 13.03% (55/422) indicted the negative. Among the illness reported, more than half representing 56.40% (207/367) reported malaria followed by head-ache 21.80% (80/367) while the least was discharge from orifices 0.54% (2/367). For the students who reported to have taken action when they experienced illness, 83.92% (308/367) reported they visited a hospital, clinic or a pharmacy shop while 16.08% (59/367) indicated that they visited a spiritualist, used herbs or did not do anything at all when they experienced symptoms of illness. When asked at what stage do they visit the health institution to seek care, 43% (160/367) indicated when discomfort /pain is unbearable, 38% (140/367) said when illness symptoms appear whilst the least 1.09% (4/367) indicated that when it distorts their facial appearance. On assessing student's status on health insurance card holders, 74.41% (314/422) reported holding valid health insurance cards.

3.1.3. Student Perception on Health Care Services at SDD UBIDS Hospital To establish if students have ever visited the SDD UBIDS hospital when they experience symptoms of illness, two-thirds of the respondents 66.59% (281/422) reported they have not visited the facility while 33.41% (141/422) responded in the affirmative (Table 3). When asked which other health facility they visit aside SDD UBIDS hospital when illness arise, 49.82% (137/275) indicated Wa Municipal hospital, followed by 22,18% (61/275) reporting they visit Homeland Clinic with the least 1.09% (3/275) mentioning they visit Ahmadiyya Clinic. When asked further why they did not visit the SDD hospital to seek health care, 40.00% (110/275) reported long waiting time to access medical care, 24.00% (66/275) mentioned unavailability of drugs, 16.36% indicated cost while 12.36% identified co-payment (payment made even though they have a valid health insurance card). In finding out which sections they experience delays, 37.45% (103/275) identified queues to medical doctor's consulting room, 35.27% (97/275) mentioned delays at the laboratory diagnosis unit, 12.73% indicated delays at the medical records/patients folder section.

3.2. Multivariate Analysis

Table 4 reports the formal and informal Students health care seeking behaviour (SHSB) Odds ratio estimates for the multivariate regression analysis. From the analysis, we detected a positive association between students who ever experienced symptoms of illness [OR: 1.02; CI: -4.39 - -0.370] and seeking formal health care assistance. A negative association was however detected between students advanced in age [OR: 0.40 CI: 0.11 - 1.70], students who experienced malaria and other illness symptoms [OR: 0.32; CI: 0.22 - 1.49] and students who visited SDD UBIDS hospital after experiencing illness symptoms hospital [OR: 0.32; CI: 0.22 - 1.48] and seeking formal health care

Table 3. Perception on health care services at UBIDS Hospital.

Variable	Count (Total = 422)	Percentage (100%)
Have you ever visited UBIDS Hospital?		
Yes	141	33.41
No	281	66.59
	422	
Which Health Facility did you visit aside UBIDS Hosp		
Upper West Regional Hospital	39	14.18
Wa Municipal Hospital	137	49.82
Homeland Clinic	61	22.18
Ahmadiyya Clinic	3	1.09
Yassin Clinic	13	4.73
Messiah Clinic	22	8.00
	275	
Why did you not visit UBIDS Hospital when sick		
Cost of Health Care services not affordable	45	16.36
Long waiting time to access medical care	110	40.00
Insufficient information on available medical service	6	2.18
Poor attitude of Health care staff towards clients	12	4.36
Unavailability of drugs	66	24.00
Co-payment (Payment made even though you have NHIS Card	34	12.36
Others	2	0.73
	275	
Which section /Unit did you experience delays		
Medical records (Patient folder section)	35	12.73
At queue to Doctor's consulting room	103	37.45
At Pharmacy/Drug Unit	14	5.09
At Laboratory diagnosis Unit	97	35.27
Others	5	1.82
	275	

4. Discussion

Main Findings

Our study found that individuals differed in their choice of treatment sources depending on perceived severity of illness and accessibility of health care services. We identified that more students would rather patronize the Hospital, Clinic

Variables	Unadjusted Multivariate regression		
	OR	CI	P-Value
Student's age (continuous)	1.00		
	0.40	0.11 - 1.70	0.026
Ever experienced symptoms of illness in the last	12 months		
No	1.00		
Yes	1.02	-4.39 - 0.37	0.020
Symptoms of illness experienced in the last 12 m	onths		
Headache	1.00		
Malaria & others	0.32	0.22 - 1.49	0.008
Ever visited UBIDS hospital when experience illr	iess		
No	1.00		
Yes	0.32	0.22 - 1.48	0.007

Table 4. Formal and Informal SHSB Odds ratio estimates for the regression analysis.

or pharmacy shop (83.92%) than visit a spiritualist, use herbs, consult internet or did nothing (16.08%). Presumably the students in SDD UBIDS are exposed to multiple sources of healthcare services and they could switch among the alternatives sources available depending on their perception of the intensity of illness and the care they would receive. This result is consistent with similar studies on healthcare switching behavior of patients with multiple sources of health care services [1] [4] [27]

The study also identified perceived barriers to low patronage of the health facility as relatively long waiting time to access medical care (33.11%), cost of care (27.81%), co-payment concerns (11.26%), and insufficient information on medicine services (2.00%). These results support findings of previous studies conducted in the middle east (Lebanon), Kenya, Nigeria and Ghana on possible barriers limiting patient access to healthcare services [1] [4] [5] [16] [27]

Specifically, students experienced considerable delays at service delivery points at the university hospital which they identified to include; long waits at the queue to doctor's consulting room and at the medical records unit. Likewise, the folder retrieval system at the medical/patients records unit was considered inadequate (12.96%), a possible re-organization or computerization of processes in the unit could enhance service delivery. Previous studies have demonstrated that a patient's experience of waiting in a health system can radically influence his/her perceptions of service quality and in fact, protracted waiting time has equally been identified as a reason for patients not seeking care in some conventional health facilities [1] [4] [15] [26] [28]

Study subjects who ever experienced symptoms of illness in the last 12 months were statistically more likely to use formal healthcare facilities. It also came up that, students who had malaria and other illness symptoms were less likely to seek formal health care. It is important to note from previous studies that, informal health care-seeking behaviour is a reality that health professionals concerned with students health cannot ignore [4] [5]. Health professionals should be conscious of these trends and reach out to students who were more likely to seek informal care (consult friends, relatives, internet etc) on sexual and emotional problems due to confidentiality and trust [3] [4] [7] [17] [19]. Preferably, health professionals should provide students with specific services, which are multidisciplinary, adapted to their needs/expectations and affordable, and ensure that they know about them, for example, using the Internet as a means to reach out to them. Also, health professionals need to work on establishing a solid partnership of trust with students to make them feel more comfortable with disclosing intimate concerns and assured of confidentiality. A study in Lebanon maintained that, informal care is not always appropriate and health professionals need to support and educate parents, peers and other support networks so that they can have a better impact on youth health [4].

5. Conclusions

Our study revealed that SDD UBIDS students do not go to the hospital until they experience discomfort/pains that they cannot accommodate anymore. Other factors preventing effective use of the university hospital include excessive waiting time at service delivery points particularly queues to the doctor's consulting room and at the laboratory diagnosis unit. The use of the hospital for proper diagnosis and consultation should be encouraged through appropriate information, education and communication. Restructuring of some of the service delivery points may be necessary, for instance, another queue could be introduced to cater for only staff and students whilst the other queue handles the non-university community. The laboratory unit could also be enhanced with more modern equipment to reduce the time spent to produce test results. More research, including qualitative studies, should be encouraged to further understand the contextual triggers that may urge SDD UBIDS students to seek timely health care at the university hospital. These factors if discovered may be more amenable to modification than relying upon unalterable factors such as gender, age or religious status.

What is known about this topic?

The Andersen's model of health-care seeking behaviour has been used to demonstrate the usefulness of enabling, need and predisposing factors in understanding health-seeking behaviours. For example, in our study, we found that, the type of health facility students prefer when they experience illness is important for understanding health seeking behaviours among students in SDD UBIDS.

What this study adds:

To the best of our knowledge, this study is the first to investigate students' health seeking behaviour and their perception of health care services at the SDD UBIDS hospital. Our study is also the first to examine students' healthseeking behaviour with a focus beyond a specific group or disease. Our findings demonstrate that, students who experience illness were more likely to seek treatment in formal health facility. The study highlights the need for some form of health education and promotion to improve access to health seeking among students.

Limitations of This Study

First, individuals' self-evaluation and assessment of illness, illness severity and the associated need to seek treatment may vary largely. Nonetheless, our study did not control for severity and/or type of illness as information on this variable was not collected. Further studies are necessary for exploring the role of illness severity in appreciating students' health-seeking behaviours among SDD UBIDS Students. Also, we relied on self-reported health facility accessed at last 12 months illness experienced, which is subject to recall bias.

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Authors' Contribution

All authors were involved in the conceptualization of the study. JKW designed the google form for the data collection. All authors contributed by independently reviewing the study and conducted the full article analysis. JKW, BYG and DTM agreed on the data analysis approach. JKW and BYG conducted the Univariate and Multivariate analysis. JKW, BYG and DTM drafted the manuscript, and all authors reviewed and approved the manuscript for submission.

Availability of Data and Materials

Any information relating to the study will be available upon request. Requests can be sent to jwulifan@ubids.edu.gh.

Conflicts of Interest

The authors declare no conflicts of interest.

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Abbreviations

SHSB: Student health-seeking behavior

SDD UBIDS: Simon Diedong Dombo University of Business and Integrated Development Studies.