

Health Behavior of Undergraduates and Service Utilization of University Health Centre

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Abstract:

Introduction: The health services in higher institutions are to aid in providing treatment, information and education about health. Unfortunately, services available are not being utilized appropriately. Assessment of utilization is a main approach to understand the functioning of the health services. This study aimed to know the behavioural pattern and factors that influence the utilization of available health services among undergraduates.

Method: This was a cross sectional descriptive study of 250 undergraduates selected using random sampling technique from four faculties out of thirteen faculties in the institution. Self-administered pre-tested questionnaires were used to gather information from the participants.

Results: Majority, 177(70.8%) were males, 190 (76%) had registered with the health centre and those who did not, 67.4% were of the opinion that registration procedure is clumsy. Among 142 students who were ill, 45.8% utilized the health centre. Of those that sought alternative means of treatment, 70.7% used self-medication (over-the-counter), while 15.2% visited private hospitals, 41.8% believed that alternative means were prompt in response to their health needs while 24.6% believed drugs were not usually available in the health centre.

Conclusion: Factors that influence utilization of university health centre are income, course of study, registration with health centre and perceived severity of illness. These factors identified among undergraduates in this study are amenable to policy change in order to improve utilization.

Key words: Utilization, behaviour, undergraduates, health.

I. Introduction

Health services in higher institutions are to provide prompt and qualitative treatment, adequate and appropriate information and education about health. Students are not only concerned about their health but also feel susceptible concerning certain areas of their health and need intervention (WHO, 2013). This is in addition to overwhelming social structures which encourage endangered health risk behaviours (Stevens 2004) with grave implications and long term consequences if no early intervention. Unfortunately, in some places, services available and provided are not being utilized as expected for various reasons.

Although, undergraduates, majority of who are youths are vulnerable, the tendency to overlook young people's health by policy makers is high (nigeria.unfpa.org, Fletcher *et al.*, 2007) (Feldman, 2012; Keefe, 2011). More than 2.6 million young people aged 10-24 die each year, mostly due to preventable or treatable causes (Patton *et al.*, 2009). The situation is worse in Sub-Saharan Africa and South East Asia where two-thirds of all deaths of young people occur (Patton *et al.*, 2009; Blum, 2009). In Nigeria, youths form a significant integral component of her population. Young peoples' health that undergraduates represent should be given adequate and appropriate attention it deserves. Youths are the leaders of future and should be treasured with efforts to eliminate as much barriers to attaining their potentials as they transit. One way is to encourage young people to utilize the available services in time of ill-health as this reduces emergency use and hospitalization (Young *et al.*, 2001; Santelliet *al.*, 1986).

Utilization of health services has both short and long- term benefits. McNallet *al* reported that as various acute illnesses and stress were treated among students that utilize school health centres, they were noticed to have strong academic performance, healthy mind and body. According to UNFPA, about two-thirds of premature deaths and one-third of the total disease burden in adults are associated with conditions that began in their youth (nigeria.unfpa.org). For instance, utilization of health centre encourages early diagnosis of conditions

such as chronic kidney disease which has been reported to be prevalent among the productive age group in Nigeria (Bamgboye, 2006, Oluyomboet *al* 2014). With good utilization of health facilities, many chronic diseases could be diagnosed early with progression delayed or halted (Barker, 1994; Barbi and Vaupel, 2005; Finch and Crimmins, 2004).

Health care utilization is influenced by predisposing, needs, and enabling factors (Anderson 1995, Webber et al., 2003). Need generates the purpose of utilization. People view health and use the services available differently. Symptoms that are more severe are seen as conditions that would need medical attention, whereas conditions that run predictable course are usually, hitherto, wrongly considered as not needing medical attention (Foster and Anderson, 1980; Wade et al., 2008; Narrow et al., 2000). Health beliefs from socio-cultural perspectives and background could have either positive or negative influence on health seeking behaviour. The location of the facility, premises, opening hours, and complicated bureaucratic procedures, attitudes of staff and quality of the care are all organizational processes that can affect utilization of health care facility (Patton et al., 2009; Nai-Peng and Siow-li, 2013; Awoyemiet *al.*, 2011). The assessment of utilization of the available health facilities is a main approach to understand the functioning of health services available. It is a measure of performance as it creates room for improvement in service delivery. Thus, this study is designed to know the behavioural pattern and identify the factors that influence undergraduates in the utilization of health care facility available within the institution.

II. Methodology

This study was a cross sectional study. The university is a Federal Institution in South West Nigeria. Information about the students' population was obtained from the student record office. There were 13 faculties and two colleges –the Postgraduate College and the College of Health Sciences in the university. The university offers undergraduate and postgraduate programmes and it is situated within 300 m of the halls of residence. It is a primary health care centre with 24-hour service of operation and 16 bed spaces for admitting patients. Registration with the health centre is for a fee to be paid for medical tests by the students but subsequently, treatment is free. A semi-structured questionnaire was designed to obtain information on bio-data and retrospective evaluation of health care behaviour toward the university health centre during the preceding 6 months as measured by consultation.

Four (4) faculties were randomly selected out of the 13 faculties. The faculties were (Environmental design and Management, Engineering and Technology, Social sciences and Basic Medical Sciences) and the students were from first year to final year in the university. The administrations of questionnaires were scheduled outside normal class hours to reduce disruption of academic programme. The questionnaire sought information on demographic characteristics and their health-seeking behaviour in the previous six (6) months before the time of the study. Questionnaire was pre-tested and modified accordingly. Only full-time undergraduate students who reside in the halls of residence were included in the study. Informed written consent was taken from the participants. The study was approved by the ethical committee of the College of Health Sciences of the University.

Analysis: Descriptive analysis of data was done to determine frequencies, percentages and standard deviation. Chi-square was used to compare the categorical variables. Relationship between utilization of health centre and other variables were determined. The level of significance was $p < 0.05$.

III. Results

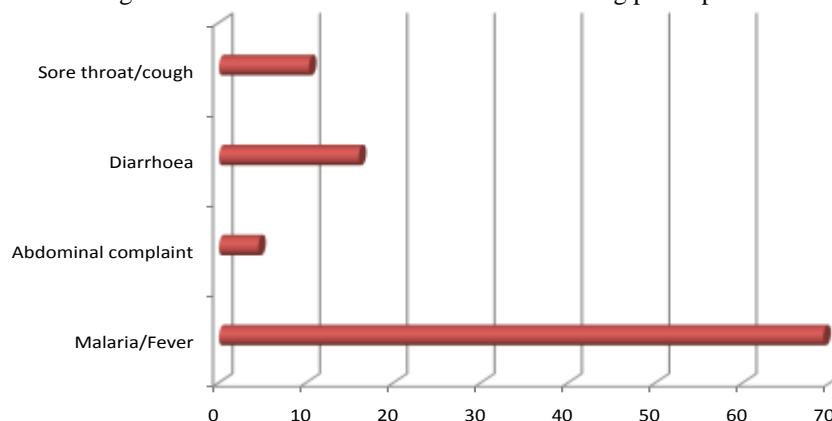
Age of the participants ranged between 15-29 years. Majority, 177(70.8%) were males. Table 1 shows the socio-demographic characteristics of the respondents. One hundred and ninety (76%) participants have registered with the health centre and 41 (68.4%) out of 60 students who did not register with the health centre believed that the registration is clumsy. No student complained of the cost of registration as a reason for not registering.

Table 1: Socio-demographic characteristics of respondents.

Variable	N (%)
Gender	
Male	177 (70.8)
Female	73 (29.2)
Age	
15-19	21 (8.4)
20-24	147 (58.8)
25-29	41 (16.4)
>30	41 (16.4)
Ethnicity	
Yoruba	211 (84.4)
Igbo	25 (10.0)
Hausa	1 (0.4)
Others	13 (5.2)
Marital status	
Single	248 (99.2)
Married	2 (0.8)
Faculty	
Social sciences	58 (23.2)
Technology/Engineering	61 (24.4)
Basic Medical Sciences	65 (26.0)
Environmental design and Management	66 (26.4)
Year/Level in University	
1	42 (16.8)
2	79(31.6)
3	28 (28.0)
4	77 (30.8)
5	24 (9.6)
Average Monthly income	
Low	68 (27.2)
Medium	49 (19.6)
High	133 (53.2)
Registration with Health Centre	
Yes	190 (76.0)
No	60 (24.0)
Previous utilization of health facility prior university admission	
Good	203 (81.2)
Fair	39 (15.6)
Poor	8 (3.2)

One hundred and forty two (49.3%) of the respondents took ill once in the preceding six months. Figure 1 shows the distribution of health conditions among the participating students. Majority (69.2%) had malaria and/or fever related conditions. In all, 65 (45.8%) utilized the university health centre out of 142 students who took ill in the preceding six months.

Figure 1: Distribution of health conditions among participants



Although not statistically significant, more females (56.8%) than males utilized the health facility (p=0.077) (Table 2).

Of the 99 respondents who sought alternative (other avenues of health care) means, 70.7% used self-medication (over the counter drugs), 15.2% had visited private hospitals and 4.1% attended traditional homes. Fifty six (41.8%) of those who sought alternatives believed that the services were prompt and 24.6% were of the opinion that drugs were not readily available in the centre. Students from faculty of health sciences recorded the highest utilization while students from environmental design and management had the least utilization (p=0.002). Although, there was no statistical significance, students in 500 level (5th year) appear to utilize the health centre more than other students in lower levels (Table 2). Undergraduates with lower income utilized health centre more than their better-off counterparts (55.3% vs. 45.5%, p=0.048). Entire participants with abdominal complaint reported at the health centre, while 39.2% with malaria reported utilization of health centre (p=0.008).

Table 2. Factors affecting utilization of university health center by the students.

Factors	Utilization, n=65 (%)	Non-Utilization, n=77 (%)	p-value
Gender			
Male	40 (40.8)	58 (59.2)	0.077
Female	25 (56.8)	19 (43.2)	
Age			
15-19	10 (83.3.0)	2 (16.7)	0.122
20-24	39 (44.3)	49 (55.7)	
25-29	16(55.2)	13 (44.8)	
Faculty			
Health Sciences	29 (64.4)	16 (35.6)	0.002
Social Sciences	8 (28.6)	20 (71.4)	
Technology/Engineering	19 (52.8)	17 (47.2)	
Environmental design and Management	9 (27.3)	24 (72.7)	
Year on Campus			
1	11 (50.0)	11 (50.0)	0.409
2	19 (44.2)	24 (54.8)	
3	5 (31.3)	12 (68.7)	
4	20 (45.5)	24 (54.5)	
5	10 58.8)	6 (41.2)	
Monthly Income			
Low	36 (59.0)	25 (41.0)	0.048
Medium	13(29.5)	31 (70.5)	
High	16 (45.7)	19 (54.3)	
Previous utilization before university admission			
Good	59 (45.7)	70 (54.3)	0.976
Fair	6 (46.2)	7 (53.8)	
Registration with Health Centre			
Yes	65 (58.6)	46 (41.4)	0.000
No	0 (0.0)	31 (100.)	
Frequency of illness			
1	35 (48.6)	36 (51.4)	0.517
2	17 (37.8)	28 (62.2)	
>3	13 (50.0)	13 (50.0)	
Nature of illness			
Malaria/Fever	40 (40.0)	60 (60.0)	0.008
Abdominal complaint	7 (100.0)	0 (0.0)	
Dysentary/Diarrhoea	6 (46.2)	7 (53.8)	
Respiratory tract infection	2 (22.2)	7 (77.8)	
Others	7 (70.0)	3 (30.0%)	

NB: Frequency of illness is the number of times participants have been ill in the past preceding six months before the study.

IV. Discussion

In all, 45.8% of the students reported an incidence of utilization of the university health centre. This is higher than the reports of 38.7% from Ethiopia (Mesganaw and Getu, 2003) and among postgraduate students in Pakistan (Manzooret *al.*, 2009). Brittoet *al.* (2001) reported non-utilization of health facility in over 45% of students. In a report from US, utilization of health facilities by students was 59% (Wade *et al.*, 2008). There is

higher proportion of females utilizing the health centre. Majority of the participants in this study are in the reproductive age group. One important factor is the biological perspectives of males and females. There tend to be more of gynaecological concerns around this age group. However, none of the participants gave gynaecological reasons for utilization and this may be because for social implication as deemed by female students. Other groups have reported gender differences in utilization of health facilities other than pregnancy and birth (Pastor *et al.*, 1998; Anglinet *et al.*, 1996, Hyun *et al* 2006). In addition, the possible barrier of culture, tradition and belief where females has to take permission from their husbands to seek health assistance (Rani and Bonu, 2003) has been removed. Students are free and not under the strict control of their parents in school. Level of education (Mesganaw and Getu, 2003, Wade *et al.*, 2008 and Manzooret *al.*, 2009) and ability to make decision positively affect utilization (Awoyemiet *al.*, 2011; Arcuryet *al.*, 2005).

Undergraduates from faculty of health sciences utilize the university health centre more than any other faculty. This is contrary to the reports of Hooper *et al.* (2005) who reported that medical students do not pass through their doctors while seeking health care. However, students in faculty of health sciences are a mixture of medical and other health-related students and this might have contributed to the increased utilization observed in this cohort. Increased knowledge(Blackwell *et al.*, 2009) and experience acquired in training by the students from this faculty could also explain higher utilization.

In this study, students with low income significantly have increased utilization of health centre. Accessing health services in the university centre is free once student is registered. Non-payment for services (consultation and purchase of drugs) encourages utilization of health centre by low –income students. User fee negatively influences utilization and its abolition improves access to health care facility (Pastor *et al.*, 1998, Narrow *et al.*, 2000, Lagardeet *al.*, 2008) and promotes equity in service access(Brittoet *al.*, 2010, Bronwyn *et al*; 2011). Although, many institutions in Nigeria today have subscribed for National health Insurance and tertiary institution health insurance scheme, there is still a vast limitation as to the conditions the scheme covers.

Registration with the health centre affects its utilization by the participants. None of the students who did not register with the health centre accessed the service even though they have been ill. The respondents claimed clumsiness in registration and bureaucracy as the major reasons. Registration encourages good practice, continuity of information as well as early problem recognition. However, the fact that registration with the health centre is a *sine qua non* to utilization, the process of registration should be simplified and made friendly to enable students' unrestricted access to the services of the health centre(Brittoet *al.*, 2010).

A good proportion of participants sought alternatives to health centre with two-third using herbal concoction. The reasons for seeking alternatives were prompt attention, readily available drugs and personalized private service. Delay or long waiting time promotes use of complementary and alternative medicine. Increased waiting time and non-availability of drugs make patients unhappy, lose trust and encourages non-utilization (Ayers and Kronnefeld, 2012). To encourage utilization, the structural and administrative organization of health system should be adjusted to facilitate accessibility and “bring services closer” to the users. It is worrisome that these participants resulted to taking herbal concoction as an alternative. Many of these herbs are untested and unregulated (Angell and Kassirer, 1998) and have been found to be associated with organ damage for instance, acute kidney injury (Kadiriet *al* 1999, Anochie and Eke 2005). One way to prevent this is to encourage utilization of formal health service which the university health centre provides.

All Participants with abdominal complaints reported at the health centre. There are reports of association between illness severity and hospital utilization (Fletcher *et al.*, 2007; Suleet *al.*, 2008). How illness is perceived determines whether or not, when and/or where that individual will seek for health care (Anderson 1995, Hooper *et al.*, 2005, Anderson and Newman, 2005). Poor understanding of symptoms, risk factors and possible complications hinders utilization of health services. Some diseases run mild courses causing increased morbidity, irreversible damage and sometimes leading to mortality. On account of this benign course, many will not present for early intervention. Pathogen burden due to failure to present in hospital or poor management from use of alternatives has been linked with future development of cardiovascular diseases (Bamgboye, 2006; Barker, 1994; Barbi and Vaupel, 2005). Therefore, utilization of health services should be encouraged among the students to forestall this preventable occurrence, limits disability (Jekel 2007) and then promotes better healthy and productive future.

V. Limitations

While this study provides important information as to factors affecting utilization of health services among students, it has limitations. The clinical needs and clinical diagnosis of the students were not determined. This may affect the type and availability of service which may translate to use of the health centre. Utilization of the services was based on a single visit to the centre. The questionnaire was self-administered and objectivity of the information and recall bias on the side of the students might have influenced the clinical diagnosis mentioned in this study. This study was conducted before the introduction of health insurance to the university.

It would therefore be worthwhile for another study with a larger sample size to assess utilization of services provided in the university health centre.

VI. Conclusion

The factors that influenced health service utilization in this study are; course of study, income, registration with the health centre and severity of the illness. These factors are amenable to policy change. For instance, by promoting knowledge on health education cum general symptomatology of presence of disease and need to access available services on campus regardless of how trivial the symptoms of an illness might be. And simplifying process of registration would go a long way increasing health care utilization. More funds should be made available to increase drug supply and in varieties as this reassures students and increase utilization.

Implications for school health: Assessing utilization for possible change of structure and organizational processes of health services may facilitate increased usage of health facilities. Less than 50% utilized health service while the non-users gave reasons that are amenable to workable policy change.

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