

Use of Internet Health Information Resources and Information Seeking Behaviour among Undergraduate Student of University of Education, Winneba

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Abstract

The study sought to find out the impact of the use of the internet on health-seeking behavior among undergraduate students of University of Education, Winneba. The study employed a descriptive survey design using the quantitative research approach. Samples of 515 undergraduate students were conveniently selected from the five faculties in the University of Education, Winneba. A questionnaire on the Impact of online Health Seeking Behavior among University Students was used to collect data for the study. Descriptive statistics were used to organize the data from the questionnaire into frequencies and the responses expressed in percentages. Analysis of the data proved that health information from the internet had a significant impact on the health seeking behaviour of university students. It is, therefore, recommended among other things that an exclusively medical online management information system be rolled out by doctors and nurses to guarantee accurate medical advice on health information services. This is expected to minimize the negative implications of internet health information on the health-seeking behaviour of students. It is also recommended that online websites providing health information are regulated and a disclaimer suggesting the non-conclusiveness of existing information on such sites be made available to protect the innocent unsuspecting online health seeker.

Keywords: Internet health • University student • Health information • Health delivery

Introduction

The internet has become part and parcel of the daily life of most people in the world notably, among students. Interest in the use of the internet for health-related information among university students is growing rapidly. The search for health and therapeutic information is among the most sought for information that students usually search online [1]. According to Fitzgerald C and Oleske DM [2], the internet is an ideal source for medical information, because it can be very useful in health promotion and preventive medicine. In addition, the internet offers people searching for health-related information the possibility to access tailored information and the chance to remain anonymous. Internet-based health information is accessed by students from a variety of sources, including, websites run by organizations, homepages owned by individual doctors, online support groups where people actively exchange health information and blogs authored by health advocates, caregivers or those pursuing self-help [3]. A US Pew survey indicates that about 66% of health information seekers begin their search process at search engines such as Google or Yahoo, with 27% using a specific health-related website to start the search [4].

Health-seeking behavior has been defined as the activity undertaken by

individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy [5]. Students have their own choice of seeking treatment depending on the severity of the illness and also how accessible the healthcare service facility is to them. From their study, it was realized that, nearly half of the respondents (49.2%) relied on information obtained from attendants at various pharmacy shops towards treatments of common ailments. Again, 6% of the respondents showed their reliability to colleagues for treatment whenever they experienced any symptoms of illness than to go to the university hospital. People seek help on health issues based on several reasons, and the factors which influence the choice of treatment sources when symptoms occur include socio-cultural factors, social networks, gender and economic status. Access to healthcare facilities in terms of cost of treatment and healthcare provider attitude are also determinants of health seeking behaviour. There are indications that cost of prescribed medicines, inconvenience as a result of the location of health facilities and patient delays affect the patronage and utilization of public health services. This has contributed to the increase in the use of other sources such as internet, community pharmacies, drug peddlers, herbal medicine, religious care organizations and students in health-related academic disciplines [6].

In relation to undergraduate students, Scott SD, et al. [7] conducted a quantitative study with undergraduate students to investigate their use of the internet to access health information. It was realized that the growing interest in online health seeking behavior among students was in the assertion that more personal knowledge in the disease area is gained and this contributes to the selection of the appropriate therapeutic approaches. The undeniable fact about this practice is that people in the act tend to visit the nearest pharmacy shop to acquire drugs based on their personal view on the information they received online without any professional advice. It must be noted however, that most of these pharmacy shops are not manned by trained professionals and as such the students' lives may be put in danger in terms of the appropriate drug to be administered. Again, these workers at the pharmacy shops only prescribe drugs based on its effectiveness on other clients without taking into consideration the conditions of administration pertaining to an individual's

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physiological makeup and the associated side effects. There have been reports on the general online health seeking behavior of university students but the easy access to internet facilities and the uncontrolled level of information available online makes it very important that a study be concentrated on internet seeking health behavior of such students.

This study therefore focuses on the use of the internet as a source of seeking health and its impacts on undergraduate students of the University of Education, Winneba. Emphasis was placed on the following areas: kinds of health information university students seek using the internet, reasons why the internet is used for health-related issues, whether they look out for contraindications of the treatment regimen they settle on as therapeutic approach, associated complications that such students may experience in their online health seeking behavior and how their academic activities are affected by these methods of health delivery.

Materials and Methods

The study used a quantitative approach, employing the survey method. A questionnaire on the Impact of Internet Use on Health Seeking Behavior among University Students was used to collect data from 515 undergraduate students of the University of Education, Winneba – Ghana. Out of the 515 that was sampled 25.2% came from the Faculty of Social Science, 23.5% from the Faculty of Science Education, 21.7% from Language Education, 15.7% from Faculty of Educational Studies and 13.9% from Faculty of Creative Arts, the percentage allocation was done based on the total undergraduate student population at the various faculties.

Undergraduate students were used for the study because they make up the highest population in the university. However, it is observed their attendance at the university clinic is low compared to other categories of students within the university. The questionnaire before administration to the research subjects was pilot tested at the School of Ghanaian Languages, Ajumako in the Central Region of Ghana to ascertain its validity and reliability. Data collected were screened, coded and entered into computer software. The analysis was facilitated using the Statistical Package for Social Science version 21 for Windows. The data was organised into descriptive and discussed. Finally, the cross tabulation statistics function of the SPSS software was used to analyze the data into frequency counts and converted into percentages.

Results

From Table 1, 64.3% of the respondents are males while the rest, 35.7% are females. The dominant age group falls within 21-25 years with (61.5%, 63) of the sample. This was followed by the age range 26-30 years and only two of the respondents had their ages above 36 years (1.9%, 2) of the sample. More than one fourth of the respondents were from the Faculty of Social Science, while 27 of them came from the Faculty of Science Education with 21 also coming from the Faculty of Language Education. Finally, 16 of the respondents were from the Faculty of Creative Arts.

Table 2 shows more than half (70.9%) of respondents used the internet to obtain information on the prevention of diseases. Sixteen percent of the respondents used the internet to obtain diagnostic health information while a little above one tenth used the internet for information on therapeutic and treatment.

Table 3 shows majority of the students of the Faculty of Science Education (20.4%, 21) of sample, searched for Preventive health information. Many of the students of the Faculty of Language Education searched for Diagnostic health information as compared to students from other faculties. About a quarter of respondents from the Faculty of Creative Arts searched for health information on Therapeutic and Treatment of disease though most of the students who search for this information are from the Faculty of Social Science.

As presented in Table 4, over half of respondents used the internet as a source of health information because of educational purposes. However, 10.7% of the respondents searched for health information on the internet because they wanted to avoid visiting the hospital while 2.9% of the respondents used

the internet as a source of health information because they wanted to cut down cost related to health. Fifteen of the respondents said they used the internet for health information for convenience's sake.

Table 5 shows majority of the respondents from all the faculties used the internet for health information basically for the reason of health education purposes. An equal number of the respondents (3.9%) actually used the internet for health information to avoid visiting the hospital and for convenience's sake. Only one respondent from the Faculty of Educational Studies used the internet for health information in order to cut down costs related to health.

Table 6 reveals some of the unexpected reactions experienced by respondents in using internet health information for therapeutic and treatment purposes. These include blurred vision, 9.7% of respondents, increased blood pressure 2.9% of respondents, an equal percentage (5.8%) of respondents experienced irritation of the skin and erectile and urinal dysfunction. Four of the respondents experienced other unexpected reactions whereas 74 of them had no unexpected reaction after the treatment.

From Table 7, 14.6% of the respondents reported having experienced some form of setback in their academic performance after obtaining unexpected response from the use of health information from the internet while 85.4% of respondents didn't record any effect. There were students each from all the faculties who experienced an effect on his or her academic performance

Table 1. Socio-demographic data of respondents.

Variables	Frequency	Percentage (%)
Gender	Male	340
	Female	175
Age group	16 – 20	50
	21 – 25	315
	26 – 30	100
	31-35	40
	36 and above	10
		1.9
Faculty	Educational studies	85
	Foreign languages	105
	Science education	135
	Social science education	110
	Creative art	80
		15.5

Table 2. Distribution of the nature of health information students looked for on the internet.

Health	Frequency	Percentage (%)
Preventive	365	70.9
Diagnostic	80	15.5
Therapeutic and treatment	55	10.7
Other	15	2.9
Total	515	100.0

Table 3. Faculty of student and the kind of health information looked for.

What Health Information do you Search for on the Internet					
Faculty	Preventive n (%)	Diagnostic n (%)	Treatment n (%)	Other n (%)	Total n (%)
Educational Studies	60 (11.7)	10 (1.9)	5 (1.0)	10 (1.9)	85 (16.5)
Language Education	70 (13.6)	30 (5.8)	5 (1.0)	0 (0.0)	105 (20.4)
Science Education	105 (20.4)	20 (3.9)	5 (1.0)	5 (1.0%)	135 (26.2)
Social Science Education	75 (14.6)	10 (1.9)	25 (4.9)	0 (0.0)	110 (21.4)
Creative Arts	55 (10.7)	10 (1.9)	15 (2.9)	0 (0.0)	80 (15.5)
Total	365 (70.9)	80 (15.5)	55 (10.7)	15 (2.9)	515 (100.0)

Table 4. Reasons for using the internet as a source of health information.

Reason	Frequency	Percent (%)
For educational purposes	370	71.8
To avoid visiting the hospital	55	10.7
To cut down cost	15	2.9
For convenience sake	75	14.6
Total	515	100.0

Table 5. Comparison between faculty and reasons why internet is used for health information.

	For Educational Purposes	To Avoid Visiting the Hospital	To Cut Down Cost	For Convenience Sake	
Faculty	n, (%)	n, (%)	n, (%)	n, (%)	n, (%)
Educational Studies	50 (9.7)	20 (3.9)	5 (1.0)	10 (1.9)	85 (16.5)
Language Education	80 (15.5)	5 (1.0)	0 (0.0)	20 (3.9)	105 (20.4)
Science Education	120 (23.3)	5 (1.0)	0 (0.0)	10 (1.9)	135 (26.2)
Social Science Education	85 (16.5)	5 (1.0)	10 (1.9)	15 (2.9)	115 (22.3)
Creative Arts	35 (6.8)	20 (3.9)	0 (0.0)	20 (3.9)	75 (14.6)
Total	370 (71.8)	55 (10.7)	15 (2.9)	75 (14.6)	515(100.0)

Table 6. Unexpected reactions experienced by respondents.

Complication	Frequency	Percent (%)
Increased blood pressure	15	2.9
Blurred vision	50	9.7
Irritation of skin	30	5.8
Erectile and urinal dysfunction	30	5.8
Other	20	3.9
Missing	370	71.8
Total	515	100

Table 7. Relationship between faculty and effects of unexpected reaction on academic performance of students.

	Why do you search for health information on the internet?				
Faculty	Reduced retentive memory	Forgetfulness	Sluggishness	Other	Total
	n (%)	n (%)	n (%)	n (%)	
Educational Studies	5 (6.7)	5 (6.7)	0 (0.0)	0 (0.0)	10 (13.3)
Language Education	5 (6.7)	10 (13.3)	5 (6.7)	0 (0.0)	20 (26.7)
Science Education	5 (6.7)	0 (0.0)	5 (6.7)	5 (6.7)	15 (20.0)
Social Science Education	5 (6.7)	5 (6.7)	5 (6.7)	0 (0.0)	15 (20.0)
Creative Arts	5 (6.7)	5 (6.7)	5 (6.7)	0 (0.0)	15 (20.0)
Total	25 (33.3)	25 (33.3)	20(26.7)	5 (6.7)	75 (100.0)

as a result of the unexpected reaction they experienced from making use of internet health information. Some of the effects the unexpected reaction had on students included; Reduced Retentive Memory (33.3, 5) of respondents, Forgetfulness (33.3, 5) of sample and Sluggishness (26.7, 4) of respondents.

Many of the respondents whose academic performance was affected as a result of the unexpected reaction came from the Language Education Faculty. However, three respondents each from the faculties of Science Education, Social Science Education and Creative Arts experienced an effect on their academic performance as a result of the unexpected reaction they experienced in using health information from the internet for therapeutic and treatment purposes.

Discussion

Unarguably, the search for health information online has with time become

a common practice globally with the advent of modern technologies. This has an enormous impact on the quality of life and health of any nation. This research, therefore, sets out to assess the internet health-seeking behaviour of students at University of Education Winneba. From the study, we report preventive, diagnostic, therapeutic and treatment and others (general health information) from the highest frequency as the main reasons for internet use for health information in the university respectively. This however is not surprising as a survey revealed that more than half of tertiary students in Ghana use the internet for health information [8]. This information collaborates the lack of access to basic healthcare services in the country. On the contrary, Adegbihero-Iwari OE, et al. [9] in their research also cited sexual or reproductive health as the main reason for online health information in a private university in Nigeria. Adegbihero-Iwari OE, et al. [9] Knowing that health information on the prevention of disease is the most sought for, it was worth understanding the different categories of students who use the internet as a source of health information. Students from all the faculties used the internet for health information but the majority of them came from the Science Education Faculty

followed by students from the Faculty of Social Science Education. The Faculty of Creative Arts, however, recorded the least value of 14.6% in the use of the internet for health information. This shows that students in the sciences and social sciences with their content knowledge readily use the internet for health information compared to other disciplines. The large number of students who source for health information from online shows the belief and trust they have in such media and this is buttressed by the Health Belief Model (HBM).

Respondents used the internet as a source of health information because of different reasons. These reasons ranked from top to bottom include; educational purposes, to avoid visiting the hospital, to cut down costs related to health and finally for convenience sake. These observations are in tandem with the works of Osei AB, et al. [8]. Again, the reasons respondents gave for using the internet as a source of health information are also similar to the study by Sillence E, et al. [10] which showed that the top five most important reasons why people trusted the internet for health in order of importance were that: the site was easy to use, the advice came from a knowledgeable source, the advice appeared to be prepared by an expert, the advice appeared to be impartial and independent and the reasoning behind the advice was explained.

Perceived benefits of using the internet for health information are deducible from the fact that respondents wanted more education on health issues because health professionals were unwilling to go further with explanations; the internet was more illustrative; gave varied options; was inexpensive; was private and confidential; gave handy and relevant information and internet was the nearest source of health information for them. This observation could be attributed to the socio-cultural climate of the Ghanaian society and its university campuses. The fear of stigmatization together with other socioeconomic factors coerces students to use the internet for health-related information opposed to visiting the hospital.

Some of the unexpected adverse effects experienced after using internet health information ranked from top to bottom included blurred vision, irritation of skin, erectile and urinal dysfunction and finally others. These complications were similar to the findings of Young KS [11]. According to Young KS [11], addiction to internet health information results in disrupted sleep patterns, fatigue, and lack of exercise, familial and occupational impairment, and relational, academic and occupational problems.

Over half of the respondents who made use of health information from the internet knew about the fact that unexpected experiences could result from the use of health information from the internet. Interestingly, an appreciable number of the respondents who used health information from the internet had experienced some form of reaction from the use of the information.

The rapid expansion of the internet makes its regulation extremely difficult. Hence information on the internet may not always be accurate. A research conducted by the Journal of the American Osteopathic Association on online Wikipedia articles found that over 90% of the entries were statements that contradicted the latest medical research [12]. It is therefore not surprising that some students who resort to the internet for health information experience some form of adverse effect. Again, the search for health information online often promotes self-diagnosis which can be a dangerous practice owing to the lack of clinical expertise to properly synthesise and critique such information [13].

A sizable number of the respondents had their academic performance affected by the unexpected reaction experience. Most of them became sluggish, could not concentrate and easily forgot what they had been taught in class. Out of the number who experienced an effect on their academic performance, the majority were from the language education faculty. One student each from the Faculties of Science Education and Social Science Education became sluggish and experienced reduced retentive memory as a result of the complications they had developed. This, they said, affected their academic performance.

Findings

The kind of health information sought for in rank order, from the most cited to the least mentioned, were preventive, diagnostic, therapeutic and treatment

and others (general information about health) health information. It was also found out that among the many types of health information sought for, students searched for health information for educational purposes. The major reason why students went on the internet for health information was for convenience sake.

In addition to that, among the unexpected reaction experiences which were identified, blurred vision was the most experienced adverse effect. However, an appreciable number of students did experience irritation of skin and erectile and urinal dysfunction from the use of internet health information.

Finally, the study revealed that some of the students who had unexpected reaction experiences from the use of internet health information had their academic performance being affected. They could either not concentrate in class or easily forgot whatever they were taught and this had a great effect on their performance in class.

Conclusion

This study was conducted to establish how internet use affects the health seeking behavior of students of University of Education, Winneba. Based on the findings of the study, the following recommendations are made to minimize the negative effects of use of internet health information.

It is recommended that a medical call centre, run by doctors and nurses who guarantee accurate medical advice on health information from the internet exclusively could be developed for the university students to have easy access to qualified health experts. This will provide expert medical advice to health seekers on the internet in need of quality healthcare and are uncertain about the information on the internet from the convenience of their phones.

This will offer them the platform to discuss all their healthcare concerns with professionals who will give them the right attention and advice before they actually go ahead to either use or not to use any health information they find on the internet. It will be irrespective of people's financial circumstance or social status since there will not be the need to travel or meet the doctor in person.

Finally, it is recommended that sites providing information on health are regulated such that innocent health seekers who go to these sites for health information are not affected.

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