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Samuel Ankamah

*University of Ghana*, [ankamahsamuel44@gmail.com](mailto:ankamahsamuel44@gmail.com)

Prosper Amegashie

*University of Ghana*, [amegashi2002@yahoo.com](mailto:amegashi2002@yahoo.com)

Francis Yeboah

*University of Ghana*, [fktyeboah@gmail.com](mailto:fktyeboah@gmail.com)

Naomi Amofah-Serwaa

*University of Ghana*, [namofah-serwaa@ug.edu.gh](mailto:namofah-serwaa@ug.edu.gh)

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# Health Information Seeking Behaviour among Users in the College of Health Sciences Library, the University of Ghana amid the COVID-19 pandemic

Samuel Ankamah <sup>\*1</sup>, Prosper Amegashie <sup>2</sup>, Francis Yeboah <sup>3</sup>, Naomi Amofah-Serwaa <sup>4</sup>

<sup>1,2,3,4</sup> Assistant Librarian, University of Ghana Library System, University of Ghana

\*Correspondence: [sankamah@ug.edu.gh](mailto:sankamah@ug.edu.gh), cc. [ankamahsamuel44@gmail.com](mailto:ankamahsamuel44@gmail.com)

## ABSTRACT

The purpose of this study is to assess the information needs and information-seeking behaviour among library users in the CHS Library, the University of Ghana amid the COVID-19 pandemic. The study adopted the survey design to select 128 respondents using the convenience sampling technique with a response rate of 68.75 per cent. The study found that most respondents were competent health information literates. Moreover, most users look for health information to gain a better understanding of the causes, severity, and prognosis of a disease. Again, most respondents demonstrated that their main source of health information during the COVID-19 pandemic was the internet followed by medical databases. The findings also indicated that major challenges encountered in seeking health information by most respondents were internet connectivity followed by lack of time and inadequate library resources. Earlier studies have focused on health information and there is relatively little research on health information provided during the COVID-19 pandemic. Thus, this study provides insights into the information needs and information-seeking behaviour among library users during the pandemic in a developing country setting.

**Keywords** - Health information-seeking behaviour, Health information sources, Information needs, Library users, COVID-19 pandemic, Ghana.

## **INTRODUCTION**

Accessibility to adequate information on health is quintessential to every country. This is particularly relevant in the developing world where there are overwhelming health challenges. For instance, Africa has the highest Maternal Mortality Rate (MMR) in the world (World Health Organization, 2019). Thus, access to health information empowers medical and health professionals (MHP), patients, caregivers and policy makers in making better decisions that will improve medical outcomes (Kugbey et al., 2019; Lwoga & Mosha, 2013; Norbert & Lwoga, 2012) . However, amid the COVID-19 pandemic with its attendant lockdowns and closure of schools, libraries, bookshops, and limited access to internet connection and ICT infrastructure negatively affected access to health information relevant to patient care (Jandrić et al., 2020; The World Bank, 2021a; Turianskyi, 2020).

Severe acute respiratory syndrome coronavirus 2 (SARS-COV-2) is an infectious viral disease responsible for the coronavirus disease 2019 (COVID-19) pandemic. The first known case among humans was reported in Wuhan, China in December 2019. COVID-19 is mostly spread through droplets when an infected person exhales, coughs, or sneezes. The droplets are denser than air thus, it settles quickly on surfaces such as tables, chairs, doorknobs, skin, and cloths. One can be infected by inhaling the virus within proximity of infected persons or by touching contaminated surfaces and then touching one's eyes, mouth, or nose without washing or sanitizing the hands.

Most people affected by the disease experience fever, dry cough, tiredness, and headache and some recover without treatment. However, as of March 09, 2021, there have been a total confirmed case of over 177 million and 2.61 million deaths worldwide (Worldometer, 2021a). In Ghana, there is a total case of 86 465 and 647 deaths (Worldometer, 2021b).

The College of Health Sciences (CHS) Library is a satellite library of the University of Ghana Library System (UGLS) situated on the Korle-Bu Campus. The library provides service to students and staff of the college and other external users such as Korle-Bu Teaching Hospital and nearby health institutions. The library's collection comprises print and electronic resources with a total of 11 875 volumes of print books across all health disciplines (UGLS, 2021). The print resources include but not limited to textbooks, WHO publications, medical dictionaries, and anatomy atlases. Additionally, the library bestows access to health electronic resources that the University of Ghana (UG) subscribes to. The services the library provides includes access to Wi-Fi, reading spaces, library orientation and instruction, software installation, plagiarism checking and so on. The library is managed by three medical librarians comprising the college librarian and two assistant librarians as well as other para-professionals. (UGLS, 2021).

Library as an institution is principally a hub of informational resources such as books, databases, and films where users access and acquire knowledge and skills. Colleges and universities libraries (academic libraries) support the research and academic work of students and faculty and it is considered the most important resource of an institution of higher learning (Association of College and Research Libraries, 2010). Thus, in the field of medicine and allied health sciences, library users rely on medical and health libraries to gain access to relevant health information about their patients, clients, and themselves to ensure improvement of health and also for the delivery of better health services. This health information also serves as supplement to oral medical advice that the library users receive (Lwoga & Mosha, 2013).

Mostly, users of medical and health libraries are medical doctors, dentists, nurses, midwives, pharmacists and other health workers who access evidence-based medical information such as actionable summaries (guidelines), systematic reviews, meta-analyses, randomized

controlled trials, cohort studies and case control studies to provide quality and better health services (Masic et al., 2008). However, with emergence of COVID-19 pandemic and its preventive and protective measures imposed by governments worldwide such as social distancing, wearing of face mask, lockdowns, closure of business and schools have affected the management and operations of libraries. In Ghana, the Government closed down schools and universities nationwide. CHS Library as an academic library within the University of Ghana was also shut down. This closure means that its users would not be able to get access to most of its services which is vital in the fight of the COVID-19 pandemic. While there is available research on health information, there is relatively little research on health information provision during the pandemic (Zhao et al., 2020). Thus, this study seeks to assess the information needs and information seeking behaviour among library users in the CHS Library during the pandemic. The following are the objectives of the study:

- a. To assess the health information needs and information seeking behavior among CHS Library users and.
- b. To identify factors that may prevent CHS Library users from seeking health information.

### **Theoretical Framework**

The study incorporated the Wilson's model of information behaviour which posits that an information user seeks information to satisfy a perceived need (Wilson, 1999). The study focused on the information needs, information searching process and intervening variables (such as psychological, environmental, economic and source characteristics which may be supportive or preventive of information use) to explain the health information needs of CHS

library users, their preferred information sources and other factors that inhibits users for seeking health information during the COVID-19 pandemic.

## **LITERATURE REVIEW**

### **Health information needs**

On daily basis, library users have peculiar information needs ranging from social, health, politics as well as information related to their academic curriculum. It is very crucial to investigate the context in which information seeking occurs (Jacobs et al., 2017). Lack of adequate health information leads to stress, whereas providing effective and timely health information to users can reduce the anxiety (Jackson et al., 2008). According to, Lwoga and Mosha (2013), seeking for health information from various sources is triggered by individual interest and needs. The information needs drives health professionals to an information seeking process to fill the information gap. Individuals seeking for information about health, seeks to acquire more facts about the illness, risks, protection, prevention, and treatment which is termed as “cognitive needs” while others also seek information to emotionally deal with the diseases (affective needs) (Wilson, 1999). There are significant growth of health information needs from health professionals, patients, caregivers, parents as well as medical students. In the South-eastern of the United States of America (USA) diagnosis, treatments, hospital visit and services were the information needs of both patients and health professionals (Roche & Skinner, 2009).

Another study also indicates that caregivers of orphans and vulnerable children in Namibia need information on feeding scheme, medication, financial support (Mnubi-Mchombu & Ocholla, 2011). Some patients and caregivers get confuse, misunderstand, may not remember and at times not satisfied about the information they receive from health professionals

therefore they seek health information on their own to help adapt to the health situation. Ghana has been reported to have one of the lowest ratio of physician to patient at the rate of 0.136:1000 in the world (The World Bank, 2021b). Therefore, it is very difficult for physician to provide adequate health information to all patients and due to that reason information needs of patients are met elsewhere.

### **Health Information Seeking Behaviour**

Seeking for health information is a vital component to better make informed decision about the diseases, medications, and preventions. Information sources can be obtained from three category: the controllable information sources (brochures, booklets, CD and institutional websites), the non-controllable information sources (external sources such as family members, media as well as colleagues) and the partly controllable information sources such as newspapers publications, magazines and web-based sources (Veloutsou et al., 2005). Research in Tanzania by Veloutsou et al. (2005) indicated that vital sources of health information were from radio, brochures, word of mouth from family and friends and television. This means that people still rely on alternative sources of health information such as personal networks, traditional media, and health care providers.

A study in a medically underserved population in the USA with 53 participants indicated that, the primary source of health information was provided by 64% (34 of 53) health professionals and health care providers followed by 13% (seven of 53) of the respondents indicated brochures, eleven percent of participants (six of 53) identified television, nine per cent (five of 53) of participants mentioned the internet and only one participant identified the library as a primary source of health information (Zach et al., 2012).



Presently, with the advent of technology, many users resort to the internet as a major source of information because it is easy to access as compared to the print format. Plantin and Daneback, (2009) reported that there is an increase number of parents and caregivers who resort to the internet for health information aside the oral medical advice from health professionals. Reavley and Jorm (2011) also opined in their study that, in the South-Eastern USA, the internet is a vital source of health information. AlGhamdi and Moussa (2012) stated that in the developing countries, health information is internet-based and its used as a supplementary source of information for patients and parents and healthcare providers. Most information on the internet is current since they are published every day and is quite faster and easier to access than the printed format. This has helped to solve the challenges of accessibility of health information resources. A study in Namibia by Mnubi-Mchombu and Ocholla (2011) stated that supplementary source of health information includes mass media, internet, and the print media. It is evident that for healthcare providers or health professionals, the internet, mass media, family and friends, brochures are important sources of health information.

### **Barriers to Information Seeking Behaviour**

Identifying the sources of information can be a challenge to many users seeking for information. Despite the availability of health information, many library users lack enough experience to retrieve the information. Some information seekers also find it difficult to use the retrieval tools (Chung et al., 2011). Wald et al. (2007) asserted that most users find it difficult to identify information sources available in the library. Anker et al. (2011) also outlined some barriers to information seeking behaviour which include lack of time to search for information, lack of skills to search for information on or from the web or the devices

used in assessing information from the web as well as unwillingness of some library staff to assist users identify and retrieve information.

## **METHODOLOGY**

The study adopted the survey design to select 128 respondents (which is also the maximum seating capacity of CHS Library) from 2<sup>nd</sup> October 2020 to 5<sup>th</sup> November 2020 using the convenience sampling technique. The sole instrument employed to collect data from the respondents was printed questionnaire. The data was analyzed using Statistical Package for the Social Science (SPSS), version 20 into frequency tables.

## **RESULTS AND DISCUSSIONS**

Out of a total of 128 respondents that were approached to participate in the study, 88 respondents agreed and participated in the study. This represents a response rate of 68.75 per cent.

**Table 1: Gender of respondents**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	44	50.6
Female	43	49.4
<b>Total</b>	<b>87</b>	<b>100.0</b>

From Table 1, there was almost a gender balance as out of the total of 87 respondents, 44 (50.6%) were males whereas 43 (49.4) were females. This indicates a fair representation of gender.

**Table 2: Age distribution of respondents**

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
20 and below	10	11.4
21-30	41	46.6
31-40	36	40.9
41-50	1	1.1
<b>Total</b>	<b>88</b>	<b>100.0</b>

Table 2 indicates that majority of the respondents (46.6%) were aged 21-30. This was followed by the age group 31-40 which recorded 40.9%. Age group 20 and below were 11.4% whilst those 41-50 were only 1.1%. This implies that a little over 87% of the respondents were within the age cohort of 21-40.

**Table 3: User category**

<b>User Category</b>	<b>Frequency</b>	<b>Percent</b>
Student	42	48.3
Medical professional	25	28.7
Dental professional	3	3.4
Nursing and Midwifery	6	6.9
Allied health professional	5	5.7
Researcher	1	1.1
Faculty	2	2.3
University staff	1	1.1
Other	2	2.3
<b>Total</b>	<b>87</b>	<b>100.0</b>

Table 3 indicates that majority of the respondents were students 42 (48.3%) and Medical professionals 25 (28.7). A handful of the respondents were Nursing and Midwifery 6 (6.9%); Allied health professionals 5 (5.7); Dental Professional 3 (3.4). Only 2 (2.3%) were Faculty, whereas Researcher and University staff recorded 1 (1.1%) each. This implies that 77% of the respondents were 'students' and 'medical professionals' and the remaining categories of the

respondents (Nursing and Midwifery, Allied Health Professionals, Dental Professionals, Faculty, Researcher, University Staff) constitute 23%.

**Table 4: Level of health information literacy**

<b>Level of health information literacy</b>	<b>Frequency</b>	<b>Percent</b>
Expert	5	5.7
Competent	50	56.8
Intermediate	21	23.9
Basic	8	9.1
Not sure	4	4.5
<b>Total</b>	<b>88</b>	<b>100.0</b>

From Table 4, the respondents were asked about their level of health information literacy, a little over half that is, 50 (56.8%) respondents indicated that they were ‘competent’ while 21 (23.9%) had ‘intermediate’ level. Eight (9.1%) had ‘basic’ literacy level of health information. Only 5 (5.7%) indicated that their level of health information literacy was ‘expert’ whilst 4(4.5) were ‘not sure’ of their level of health information literacy. Thus, it could be inferred that majority of the respondents (over 86%) had appreciable level of health information literacy. It emerged from the study that majority of the respondents had appreciable level of literacy in health information. This appears very promising especially amid the COVID-19 pandemic era where the population is expected to know more about issues that affect their health and how to stay safe from contracting the disease.

**Table 5: Reasons for looking for health information during the Covid-19 pandemic**

<b>Why do you look for health information during this pandemic?</b>	<b>Frequency</b>	<b>Percent</b>
a. Because I ran the risk of getting a particular disease	22	25.0%
b. Because I want general information on healthy lifestyle	41	46.6%

c. Because I have been diagnosed and want to know more about my illness	2	2.3%
d. To gain better understanding of the causes, severity, and prognosis of a disease	59	67.0%
e. Because I like to search for medical information for academic purposes	39	44.3%
f. To find information on a specific disease, treatment and drugs/medication	37	42.0%

As presented in Table 5, a major reason for looking for health information during the pandemic was ‘to gain better understanding of the causes, severity and prognosis of a disease’ 59 (67%). Other relatively prominent reasons include: ‘to get general information on healthy lifestyle’ 41(46.6); ‘to search for medical information for academic purposes’ 39 (44.3%); and ‘to find information on a specific disease, treatment and drugs/medication’ 37 (42.0%). A quarter (25.0%) of the respondents also reported that they looked for health information during the pandemic because they ‘ran the risk of getting a particular disease’. Only 2 (2.3%) stated that they looked for health information ‘because they had been diagnosed and want to know more about the illnesses. The study also shows that diversity of reasons underpin health information needs of various people. Key among the reasons were to gain better understanding of the causes, severity, and prognosis of a disease; to obtain general information on healthy lifestyle; and to search for medical information for academic purposes. The study however reveals that people give priority to their health over their academics as majority of the respondents indicated that they seek health information to gain better understanding of the causes, severity, and prognosis of a disease as well as how to live a healthy life as compared to those who seek it for academic reason, even though the respondents were basically students and medical professionals. Of course, life is needed to pursue academics, so it is not surprising. This is in sync with Wilson’s model which indicates that individuals seeking for information about health, seeks to acquire more facts about the

illness, risks, protection, prevention, and treatment which is terms as cognitive needs while others also seek information to emotionally deal with the diseases (affective needs) (Wilson, 1999). The finding also aligns with that of (Roche & Skinner, 2009), who, in the South-eastern of the United States of America (USA), found out that diagnosis, treatments, hospital visits and services were the information needs of both patients and health professionals (Roche & Skinner, 2009).

**Table 6: Sources of health information during the pandemic**

<b>Where do you get information on health during this pandemic?</b>	<b>Frequency</b>	<b>Percent</b>
a. Social media	33	37.5%
b. Internet	66	75.0%
c. Library	11	12.5%
d. Radio/TV	30	34.1%
e. Family/Friends	14	15.9%
f. Medical databases	41	46.6%

In Table 6, the main source of health information during the pandemic was ‘internet’ 66 (75.0%), followed by ‘medical databases’ 41 (46.6%). ‘Social media’ and ‘radio/TV’ recorded 33 (37.5%) and 30 (34.1%) respectively. The least source of health information during the pandemic was ‘library’. It emerged from the study that internet, medical databases, social media, and radio/TV were the main source of information on health during the pandemic. Surprisingly, the library was the least consulted source. This is quite scary as the most authentic source of information (the library) has been relegated to the background in favour of sources such as internet and social media which cannot be readily authenticated. This implies that the user might have challenges using the library as asserted by Wald et al. (2007) that most users find it difficult to identify information sources available in the library. The finding confirms those of earlier studies which identified the internet and the social media or mass media as major sources of health information to most people ( Veloutsou et al.

2005; (Zach et al., 2012); Plantin and Daneback, 2009; Reavley & Jorm 2011; Mnubi-Mchombu & Ocholla 2011). The finding however contradicts the assertion by the Association of College and Research Libraries (2010) that colleges and universities libraries (academic libraries) support research and academic work of students and faculty and it is considered the most important resource of an institution of higher learning.

**Table 7: Challenges to health information seeking during the pandemic era.**

<b>What are the challenges or barriers you encounter in seeking health information during this pandemic?</b>	<b>Frequency</b>	<b>Percent</b>
a. Inadequate library resources	29	36.7%
b. Health information illiteracy	13	16.5%
c. ICT illiteracy	4	5.1%
d. Internet connectivity	43	54.4%
e. Lack of time	30	38.0%
f. Lack of funds	16	20.3%

As represented in Table 7, the key challenge that more than half of the respondents reported was ‘internet connectivity’ 43(54.4%). Thirty (38.0%) of the respondent also indicated ‘lack of time’ and ‘inadequate library resources 29 (36.7%) as challenges encountered in seeking health information during the pandemic. ‘Health information illiteracy’ and ‘lack of fund’ recorded 13 (16.5%) and 16 (20.3%) respectively. ‘ICT illiteracy’ was the least challenge encountered 4 (5.1%). The key challenges or barriers encountered by most respondents in seeking health information during the pandemic were internet connectivity, lack of time and inadequate library resources. Internet connectivity is a huge challenge to accessing information resource, especially e-resource, across the African continent. The situation critically undermines governments’ efforts in promoting healthy lifestyle since access to health information is key in health promotion programs and achieving the Sustainable Development Goal three. It may also cause stress as indicated by Jackson et al. (2008) that

lack of adequate health information leads to stress, whereas providing effective and timely health information to users can reduce anxiety. The finding of the study is in line with that of Anker et al. (2011) who outlined some barriers to information seeking behaviour which include lack of time to search for information, lack of skills to search for information from the web or the devices used in assessing information from the web.

## **CONCLUSION**

The findings of this study indicated that most of the respondents were competent and thus had a very good level of health information literacy. Moreover, the major reason CHS library users look for health information during the COVID-19 pandemic was to gain better understanding of the causes, severity and prognosis of a disease which was particularly consorted with cognitive needs. Again, most respondents demonstrated that their main source of health information during the pandemic was the internet followed by medical databases. The findings further specified that the major challenge encountered by CHS library users in seeking health information was internet connectivity, followed by lack of time, and inadequate library resources.

It is therefore recommended that the College Administration invest a lot more in provision of ICT infrastructure and good internet connectivity for CHS Library to improve its services and access to its patrons. Moreover, CHS Library should increase its publicity of relevant and authentic resources to the wider community apart from its bona fide users. Again, the Library should re-strategize and re-think its mode of service delivery to remain relevant in the face of changing information technology. The library should provide access to e-resources and engage their clients in the virtual environment. This will help in aiding users anywhere and at



any time. And, to help the library build trust and reliability which will guarantee its relevance amidst the Covid-19 pandemic.

The study focused on the views of the CHS library users during the COVID-19 pandemic. Moreover, the study may be applicable to health libraries with a comparable setting and population. Further research could assess library staff views on health information needs and impact of technology in meeting library users' health information needs. Future research may analyse the presence of any relationships among health information sources and demographics variables such as gender, education, and age.

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## APPENDIX

Questionnaire: Please circle in the appropriate option(s).

1. Gender: a. Male b. Female
2. Age: a. Below 20 b. 21-30 c. 31-40 d. 41-50 e. 51+
3. Level of Education: a. No formal education b. Primary education c. Secondary Education d. College and university education
4. How do you rate your level of health information literacy? a. Expert b. Competent c. Intermediate d. Basic e. Not sure
5. Why do you look for health information during this pandemic? (Choose as many as possible)
  - a. Because I ran the risk of getting a particular disease
  - b. Because I want general information on healthy lifestyle
  - c. Because I have been diagnosed and want to know more about my illness
  - d. To gain better understanding of the causes, severity and prognosis of a disease
  - e. Because I like to search for medical information for academic purposes
  - f. To find information on a specific disease, treatment and drugs/medication
6. What type of information about health do you find difficult to obtain during this pandemic?
  - a. Nutrition
  - b. Treatment
  - c. Physical fitness
  - d. Prevention
  - e. Diagnosis
  - f. Health education
  - g. Causes of diseases
  - h. Prognosis
7. Where do you get information on health during this pandemic?
  - a. Social media
  - b. Internet
  - c. Library
  - d. Radio/TV
  - e. Family/Friends
  - f. Medical databases
8. What are the challenges or barriers you encounter during health information seeking during this pandemic? Indicate as many as applicable.
  - a. Inadequate library resources
  - b. Health information illiteracy
  - c. ICT illiteracy
  - d. Internet connectivity
  - e. Lack of time
  - f. Lack of funds