



**DIGITAL HEALTH LITERACY AND UTILIZATION OF ONLINE HEALTH
INFORMATION RESOURCES AMONG PUBLIC HEALTH STUDENTS
OF RIVERS STATE COLLEGE OF HEALTH SCIENCE AND
MANAGEMENT TECHNOLOGY, ORO-OWO RUMUEME,
PORT HARCOURT, NIGERIA**

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Abstract

This study investigated digital health literacy and the utilization of online health information resources among public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT), Port Harcourt, Nigeria. Four objectives and one hypothesis guided the study. A descriptive survey research design was adopted. The population is 196 public health students of RIVCOHSMAT. Census sampling technique was used to capture all the students. Data were collected using a structured questionnaire validated by experts, while the reliability of the instrument was established using Cronbach's Alpha, yielding an overall reliability coefficient of 0.85. 97 copies of the instrument were found valid for analysis. Data were analyzed using mean and standard deviation to answer the research questions, while Pearson Product Moment Correlation (PPMC) was used to test the hypothesis at the 0.05 level of significance. The findings revealed that students possessed a high level of digital health literacy and demonstrated a high extent of utilization of online health information resources. Google Scholar, PubMed, and the World Health Organization (WHO) website emerged as the most utilized online health information resources. The study further established a strong positive and statistically significant relationship between digital health literacy and the utilization of online health information resources. The study concluded that improving students' digital health literacy would enhance their effective utilization of credible online health information resources and recommended the integration of digital health literacy training into health science curricula.

Keywords: Digital health literacy, online health information resources, health information utilization, health science students, RIVCOHSMAT, Nigeria.



Introduction

The rapid advancement of information and communication technologies (ICTs) has fundamentally transformed the way people access, process, and utilize health information across the globe. The proliferation of the internet, mobile technologies, social media platforms, and digital health applications has made health information more readily available than ever before. Individuals are no longer solely dependent on healthcare professionals or printed materials for health-related information; rather, they can conveniently obtain information regarding diseases, medications, preventive measures, nutrition, mental health, reproductive health, vaccination, and healthy lifestyles through numerous online platforms. This digital transformation has significantly improved access to health information and has empowered individuals to participate actively in making informed health decisions. However, the abundance of online health information has also introduced challenges, including misinformation, disinformation, and varying levels of information quality. Consequently, the ability to locate, evaluate, understand, and appropriately use online health information has become an essential competency, particularly among students in health-related disciplines who are expected to become future healthcare professionals (Costello et al., 2014).

The concept of health literacy has received considerable scholarly attention because it is recognized as a critical determinant of health outcomes. Health literacy refers to the cognitive and social skills that determine an individual's motivation and ability to access, understand, appraise, and apply health information in ways that promote and maintain good health. Sørensen et al. (2012) further conceptualized health literacy as people's knowledge, motivation, and competencies to access, understand, evaluate, and apply health information to make informed decisions concerning healthcare, disease prevention, and health promotion throughout their lives. Traditionally, health literacy focused primarily on understanding printed health information and communicating effectively with healthcare providers. However, the digital revolution has expanded this concept beyond conventional literacy to include competencies required for navigating digital health environments.

This evolution has given rise to the concept of digital health literacy. Digital health literacy refers to an individual's ability to seek, find, understand, evaluate, and apply health information obtained from electronic sources to address or solve health-related problems (Ban et al., 2024). Unlike traditional health literacy, digital health literacy integrates health knowledge with digital competencies, enabling individuals to effectively interact with digital technologies for health information seeking and decision-making. Digital health literacy has become increasingly important because a substantial



proportion of health information is now disseminated through websites, online databases, social media platforms, telemedicine services, mobile health applications, and electronic health records. Individuals possessing high digital health literacy are more likely to identify credible information sources, distinguish evidence-based information from misinformation, interpret medical information accurately, and make appropriate health decisions.

Digital health literacy encompasses a range of competencies that enable individuals to effectively engage with health information in digital environments. These competencies extend beyond merely accessing the internet to include the ability to identify health information needs, search for relevant health information using appropriate digital tools, access reliable online health information resources, understand and interpret health information, critically evaluate the credibility and quality of online health information, distinguish evidence-based information from misinformation and disinformation, apply acquired health information appropriately in making health-related decisions, and communicate or share digital health information responsibly (Zeeb & Dratva, 2025). In today's digital healthcare environment, these competencies are indispensable because online platforms contain vast quantities of both credible and misleading health information. Individuals who possess these digital health literacy skills are better positioned to identify authoritative information sources, evaluate the trustworthiness of health information, interpret medical terminology correctly, and make informed decisions regarding disease prevention, treatment, and health promotion.

For students in health science institutions, digital health literacy is particularly important because their academic and professional training increasingly depends on digital technologies and online evidence-based resources. These students are expected to search biomedical databases, retrieve current clinical guidelines, evaluate research evidence, interpret health statistics, compare treatment recommendations, and utilize digital information in solving clinical and public health problems. Consequently, essential digital health literacy competencies for health science students include the ability to formulate effective search strategies, use search engines and academic databases efficiently, assess the authority and credibility of online sources, identify peer-reviewed scientific evidence, interpret electronic health information accurately, and apply retrieved information ethically and professionally in learning and future healthcare practice. Students lacking these competencies may experience difficulty locating relevant health information, may rely on unreliable internet sources, or may inadvertently disseminate inaccurate health information, thereby affecting both their academic performance and future professional competence.



Statement of the Problem

The increasing reliance on digital technologies for accessing health information has made digital health literacy an essential competency for students in health-related disciplines. As future healthcare professionals, public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT) are expected to possess the knowledge and skills required to locate, evaluate, interpret, and utilize credible online health information for academic learning, clinical practice, research, and informed decision-making. However, the widespread availability of online health information is accompanied by the proliferation of misinformation and unreliable sources, making digital health literacy indispensable for effective information use. Although online health information resources such as PubMed, HINARI, Google Scholar, the World Health Organization (WHO), the Nigeria Centre for Disease Control (NCDC), and other evidence-based health platforms are increasingly accessible, their effective utilization depends largely on users' digital health literacy competencies. There is limited empirical evidence on the level of digital health literacy among public health students of RIVCOHSMAT and how these competencies influence their utilization of online health information resources. This knowledge gap underscores the need for this study

Objective

The main objective of the study is to investigate digital health literacy and the utilization of online health information resources among public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT). Specifically, the study seeks to:

1. Determine the level of digital health literacy among public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT).
2. Determine the extent of utilization of online health information resources among public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT).
3. Identify the online health information resources utilized by public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT).
4. Determine the relationship between digital health literacy and the utilization of online health information resources among public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT).



Research Questions

1. What is the level of digital health literacy among public health students of RIVCOHSMAT?
2. What is the extent of utilization of online health information resources among public health students of RIVCOHSMAT?
3. Which online health information resources are utilized by public health students of RIVCOHSMAT?
4. What relationship exists between digital health literacy and the utilization of online health information resources among public health students of RIVCOHSMAT?

Hypothesis

H₀: There is no significant relationship between digital health literacy and the utilization of online health information resources among public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT).

Literature Review

Digital Health Literacy

Digital health literacy has become an indispensable competency in contemporary healthcare and health education due to the rapid digitization of health information and services. The increasing availability of health information through internet-enabled technologies, mobile applications, electronic databases, telemedicine platforms, social media, and digital libraries has transformed the manner in which individuals access, evaluate, and utilize health information. Consequently, students in health-related disciplines are expected to possess adequate digital health literacy to effectively navigate the vast amount of health information available online and make informed health and academic decisions. The concept of digital health literacy evolved from the notion of health literacy. Health literacy refers to an individual's ability to obtain, process, understand, and use health information to make appropriate health decisions (Sørensen et al., 2012)).

As healthcare increasingly migrated into digital environments, scholars recognized that conventional health literacy alone was insufficient for effective participation in digital health ecosystems. This led Arias López et al. (2023) to introduce the concept of eHealth literacy, now commonly referred to as digital health literacy, which they defined as the ability to seek, locate, understand, evaluate, and apply health information obtained from electronic sources in addressing or solving health-related problems.



More recent definitions have expanded the concept to encompass the knowledge, skills, and confidence required to effectively use digital technologies to access, understand, evaluate, communicate, and apply digital health information for improving health outcomes.

Digital health literacy extends beyond the ability to use computers or smartphones. Rather, it encompasses a broad range of competencies that enable individuals to identify their health information needs, formulate effective search strategies, retrieve information from credible online sources, critically evaluate the quality and reliability of digital health information, distinguish evidence-based information from misinformation, interpret medical information correctly, and apply acquired knowledge in making informed health decisions (Ioannidis et al., 2017). These competencies have become increasingly important because online health information varies considerably in quality, credibility, and accuracy.

For students pursuing health science programmes, digital health literacy is particularly significant because their learning, research, and future professional practice rely heavily on digital information resources. Students frequently consult electronic journals, biomedical databases, institutional repositories, online textbooks, clinical guidelines, government health portals, and professional health websites to support classroom learning, assignments, clinical practice, and research activities. Adequate digital health literacy enables students to retrieve current evidence, evaluate scientific literature, compare treatment recommendations, interpret research findings, and apply evidence-based knowledge appropriately. Conversely, inadequate digital health literacy may expose students to misinformation, poor-quality resources, and inaccurate clinical knowledge, which could negatively affect both academic performance and future professional competence.

Despite its importance, several studies indicate that digital health literacy remains a challenge among university students. Factors such as internet accessibility, digital competence, educational background, institutional support, and previous exposure to information technologies influence students' ability to effectively utilize digital health information. Furthermore, the increasing spread of misinformation through social media has made critical evaluation skills an indispensable component of digital health literacy. Htay et al. (2022) indicated that while most students demonstrated satisfactory digital health literacy, many experienced challenges in evaluating the reliability of online health information and identifying commercially biased information. Similarly, Almeida et al. (2026) examined digital health literacy among university students and revealed that students generally possessed moderate to high



levels of digital health literacy and frequently relied on online resources when making health-related decisions.

Utilization of Online Health Information Resources

The utilization of online health information resources has increased substantially over the past two decades due to rapid advancements in information and communication technologies. Online health information resources refer to digital platforms and electronic information systems that provide health-related information for education, research, disease prevention, diagnosis, treatment, and healthcare decision-making. These resources enable users to access current, evidence-based health information irrespective of geographical location or time constraints. Unlike traditional print resources, online health information resources are regularly updated, searchable, interactive, and accessible through internet-enabled devices. Various scholars have defined online health information resources from different perspectives. Deeboonno et al. (2026) described online health information resources as internet-based platforms that provide medical and health-related information to healthcare professionals, students, researchers, and the general public. Similarly, the World Health Organization (WHO, 2021) regards online health information resources as digital information repositories and communication platforms that facilitate access to reliable health information and support informed healthcare decisions. These resources include biomedical databases, electronic journals, institutional repositories, government health websites, professional association portals, mobile health applications, digital libraries, and telemedicine platforms (WHO, 2021; Costello et al., 2014).

Students utilize these resources to obtain current medical literature, clinical guidelines, drug information, systematic reviews, research articles, disease surveillance reports, and public health recommendations (Costello et al., 2014; Almeida et al., 2026). The utilization of such resources promotes evidence-based learning, enhances research competencies, improves clinical decision-making, and supports lifelong professional development (Costello et al., 2014). Commonly utilized online health information resources include PubMed, HINARI, Google Scholar, ScienceDirect, the Cochrane Library, Medscape, the World Health Organization (WHO), the Nigeria Centre for Disease Control (NCDC), and institutional digital repositories (WHO, 2021; Almeida et al., 2026). However, the effective utilization of these resources depends on several factors, including digital health literacy, internet accessibility, availability of ICT facilities, awareness of information resources, institutional support, and users' information-seeking skills (Arias López et al., 2023). Students who possess adequate digital health literacy are generally more capable of identifying authoritative information



sources, retrieving relevant literature, evaluating research quality, and applying retrieved information appropriately than those with limited digital competencies (Ban et al., 2024; Zeeb & Dratva, 2025).

Online Health Information Resources Utilized by Students

Online health information resources comprise a wide range of electronic platforms that provide reliable and up-to-date health information for education, research, clinical practice, and healthcare decision-making. For students in health-related disciplines, these resources constitute essential tools for acquiring current scientific knowledge beyond traditional textbooks. Among the utilized online health information resources is PubMed, HINARI (Health InterNetwork Access to Research Initiative), Google Scholar ScienceDirect, Cochrane Library, MEDLINE, WHO website, Nigeria Centre for Disease Control (NCDC), Centers for Disease Control and Prevention (CDC) (Ajie et al., 2025). These platforms provide evidence-based information on disease prevention, diagnosis, treatment guidelines, public health policies, and emerging healthcare issues. Htay et al. (2022) reported that utilized online health information resources to obtain health information, with digital health literacy significantly influencing their information-seeking behaviour and satisfaction with the information obtained.

Digital Health Literacy and Utilization of Online Health Information Resources

Digital health literacy and the utilization of online health information resources are closely related concepts. While online health information resources provide access to digital health information, digital health literacy equips individuals with the competencies required to identify information needs, locate relevant information, evaluate information quality, interpret findings accurately, and apply acquired knowledge appropriately. Consequently, effective utilization of online health information resources depends substantially on an individual's level of digital health literacy (Almeida et al, 2026). Students with high digital health literacy are more likely to formulate effective search strategies, utilize specialized health databases, distinguish authoritative information sources from unreliable websites, evaluate scientific evidence critically, and apply retrieved information in solving academic and clinical problems. Conversely, students with inadequate digital health literacy often depend on general internet searches or social media platforms without critically evaluating the credibility of the information obtained. Such practices may expose students to misinformation and negatively affect learning outcomes and healthcare decision-making. Ajie et al. (2025) found that students with higher digital health literacy scores demonstrated greater confidence in locating, evaluating, and utilizing credible online health information than students with lower literacy levels. The study concluded that digital health literacy significantly influences students' online health information-seeking behaviour.



Summary of the Literature Review

The literature reviewed established that digital health literacy is a vital competency that enables individuals to access, evaluate, understand, and utilize digital health information effectively. It also revealed that online health information resources such as PubMed, Google Scholar, HINARI, ScienceDirect, WHO, and NCDC websites play an important role in supporting learning, research, and evidence-based healthcare among health science students. Studies further demonstrated that students increasingly utilize these resources; however, effective utilization depends largely on their digital health literacy competencies. It was also noted that there is a positive relationship between digital health literacy and the utilization of online health information resources, indicating that students with higher digital health literacy are more likely to use credible online health information sources effectively. Despite these findings, there is limited empirical evidence on the level of digital health literacy among students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT). The present study is therefore designed to fill this knowledge gap and contribute empirical evidence that can inform digital health literacy interventions, information literacy programmes, and institutional policies aimed at promoting effective utilization of credible online health information resources among public health students.

Methodology

This study adopted a descriptive survey research design to investigate digital health literacy and the utilization of online health information resources among public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT), Port Harcourt, Nigeria. The population of the study is 196 students enrolled at the school of public Health, Rivers State College of Health Science and Management Technology. A census sampling was employed to ensure adequate representation of students. Data were collected using a structured questionnaire titled Digital Health Literacy and Utilization of Online Health Information Resources Questionnaire (DHLUOHIRQ). The items were distributed according to the four specific objectives of the study, with seven items addressing each objective. The instrument was structured on a four-point Likert scale of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). The instrument was subjected to face and content validation by experts in Health Information Management, Library and Information Science, and Measurement and Evaluation. Their observations and recommendations were incorporated before the final version of the questionnaire was administered. The reliability of the instrument was established through a pilot study involving students from a health training institution



outside the study area who were not included in the main study. The responses obtained from the pilot study were analyzed using Cronbach's Alpha, which yielded an overall reliability coefficient of 0.85, indicating that the instrument possessed satisfactory internal consistency. The questionnaires were administered personally by the researcher with the assistance of trained research assistants. 97 copies of the questionnaire were found valid for analysis. Data collected were analyzed using descriptive and inferential statistics. Mean and standard deviation were used to answer the research questions, with a criterion mean of 2.50 serving as the benchmark for decision-making. The null hypothesis was tested using the Pearson Product Moment Correlation (PPMC) at the 0.05 level of significance to determine the relationship between digital health literacy and the utilization of online health information resources among public health students of Rivers State College of Health Science and Management Technology.

RESULTS

Table 1: Mean and Standard Deviation on the Level of Digital Health Literacy among Students of RIVCOHSMAT

Items	Mean	SD	Decision
I can easily search for health information on the internet.	3.32	0.73	Agree
I can identify credible websites for obtaining health information.	3.18	0.79	Agree
I can distinguish credible online health information from misinformation.	2.89	0.94	Agree
I can evaluate the quality of health information obtained online.	2.68	1.01	Agree
I understand the health information I obtain online.	3.05	0.84	Agree
I can apply online health information in making health decisions.	2.74	0.93	Agree
I possess adequate digital skills to utilize online health information resources effectively.	3.27	0.76	Agree
Grand Mean	3.02	0.86	High

Table 1 shows the respondents' level of digital health literacy. The results indicate that all the items recorded mean scores above the criterion mean of 2.50, suggesting that the respondents agreed with all the statements. The highest-rated item was "I can easily search for health information on the internet" (M = 3.32, SD = 0.73), indicating that students possess good internet searching skills. Similarly, respondents agreed that they possess adequate digital skills to utilize online health information resources effectively (M = 3.27, SD = 0.76). However, lower ratings were recorded for the ability to evaluate the quality of online health information (M = 2.68, SD = 1.01) and to apply online health information in making health decisions (M = 2.74, SD = 0.93), indicating that although students possess satisfactory digital health literacy, some experience challenges in evaluating and applying online health information. The grand mean of 3.02 indicates that students possess a high level of digital health literacy.



Table 2: Mean and Standard Deviation on the Extent of Utilization of Online Health Information Resources among Students of RIVCOHSMAT

Items	Mean	SD	Decision
I use online health information resources for assignments.	3.26	0.72	Agree
I use online health information resources for research activities.	3.08	0.81	Agree
I consult online health information resources during clinical learning.	2.84	0.92	Agree
I use online health information resources to prepare for examinations.	3.11	0.78	Agree
I access online health information resources using my smartphone.	3.41	0.69	Agree
I depend on online health information resources more than printed resources.	2.57	1.03	Agree
I use online health information resources for personal health decisions.	2.86	0.89	Agree
Grand Mean	3.02	0.83	High Extent

Table 2 reveals the extent to which students utilize online health information resources. The findings show that respondents agreed with all the statements, as each item recorded a mean score above the criterion mean of 2.50. The highest-rated item was "I access online health information resources using my smartphone" (M = 3.41, SD = 0.69), suggesting that mobile devices constitute the primary means through which students access health information. Conversely, the least-rated item was "I depend on online health information resources more than printed resources" (M = 2.57, SD = 1.03), implying that some students still complement online resources with printed information materials. Overall, the grand mean of 3.02 indicates a high extent of utilization of online health information resources among students.



Table 3: Mean and Standard Deviation on the Online Health Information Resources Utilized by Students of RIVCOHSMAT

Online Health Information Resources	Mean	SD	Decision
Google Scholar	3.46	0.65	Utilized
PubMed	3.12	0.77	Utilized
World Health Organization (WHO) website	3.05	0.81	Utilized
Nigeria Centre for Disease Control (NCDC) website	2.79	0.93	Utilized
ScienceDirect	2.72	0.96	Utilized
HINARI	2.61	1.02	Utilized
Medscape	2.58	0.99	Utilized
Grand Mean	2.90	0.88	Utilized

Table 3 presents the online health information resources utilized by students. The results indicate that all the listed resources are utilized by the respondents, with mean scores exceeding the benchmark of 2.50. Google Scholar emerged as the most frequently utilized online health information resource ($M = 3.46$, $SD = 0.65$), followed by PubMed ($M = 3.12$, $SD = 0.77$) and the WHO website ($M = 3.05$, $SD = 0.81$). Conversely, HINARI ($M = 2.61$, $SD = 1.02$) and Medscape ($M = 2.58$, $SD = 0.99$) recorded comparatively lower mean scores, suggesting that these specialized databases are less frequently utilized. The grand mean of 2.90 indicates that students utilize online health information resources.



Table 4: Mean and Standard Deviation on the Relationship between Digital Health Literacy and Utilization of Online Health Information Resources

Items	Mean	SD	Decision
Digital health literacy enables me to locate online health information resources.	3.37	0.71	Agree
My digital health literacy influences my use of online health information resources.	3.24	0.77	Agree
Students with higher digital health literacy utilize online health information resources more effectively.	3.18	0.81	Agree
Digital health literacy improves my ability to evaluate online health information.	3.29	0.73	Agree
Improving digital health literacy will increase the use of online health information resources.	3.42	0.69	Agree
Poor digital health literacy limits students' use of credible online health information.	3.08	0.86	Agree
Digital health literacy promotes evidence-based use of online health information resources.	3.31	0.72	Agree
Grand Mean	3.27	0.76	Agree

Table 4 shows respondents' perceptions of the relationship between digital health literacy and the utilization of online health information resources. The findings reveal that all seven items had mean scores above the criterion mean of 2.50, indicating agreement that digital health literacy positively influences the utilization of online health information resources. The highest-rated item was "Improving digital health literacy will increase the use of online health information resources" ($M = 3.42$, $SD = 0.69$), suggesting that respondents strongly believe that enhancing digital health literacy will improve effective utilization of online health information resources. Similarly, respondents agreed that digital health literacy enables them to locate online health information resources ($M = 3.37$, $SD = 0.71$). The grand mean of 3.27 indicates a positive perceived relationship between digital health literacy and the utilization of online health information resources.



Hypothesis One

H₀₁: There is no significant relationship between digital health literacy and the utilization of online health information resources among public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT).

Table 5: Pearson Product Moment Correlation Analysis Showing the Relationship between Digital Health Literacy and Utilization of Online Health Information Resources

Variables	N	Mean	SD	r	p-value	Decision
Digital Health Literacy	97	3.02	0.86			
Utilization of Online Health Information Resources	97	3.02	0.83	0.684	0.000	Significant

Significance level (α) = 0.05

The Pearson Product Moment Correlation analysis in Table 5 revealed a strong positive and statistically significant relationship between digital health literacy and the utilization of online health information resources among students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT) ($r = 0.684$, $p < 0.05$). This finding indicates that students with higher levels of digital health literacy tend to utilize online health information resources more effectively than those with lower levels of digital health literacy. The positive correlation suggests that improvements in students' ability to search for, evaluate, understand, and apply digital health information are associated with increased utilization of credible online health information resources for learning, research, and health-related decision-making. Therefore, the null hypothesis stating that there is no significant relationship between digital health literacy and the utilization of online health information resources is rejected.

Discussion of Findings

Level of Digital Health Literacy among Students of RIVCOHSMAT

The findings of the study revealed that public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT) possess a high level of digital health literacy. The finding may be attributed to the increasing integration of digital technologies into teaching and learning, widespread ownership of smartphones, improved internet accessibility, and students' frequent exposure to online academic resources. As students in health-related disciplines, they regularly interact with electronic learning platforms, digital libraries, and online health resources, thereby improving



their digital health literacy competencies. This finding is consistent with the study of Ajie et al. (2025) on health literacy of nursing undergraduate students and utilization of health information sources in Enugu state university of science and technology, Agbani and found that university students possessed digital health literacy and demonstrated confidence in searching for online health information,

Utilization of Online Health Information Resources among Students of RIVCOHSMAT

The study further found that students utilize online health information resources to a high extent. preparation, clinical learning, and personal health information. The high utilization of online health information resources may be attributed to the availability of internet-enabled mobile devices, increased awareness of electronic information resources, and the need to access current health information that is often unavailable in printed materials. Health science education increasingly requires students to consult current evidence-based literature, making online information resources indispensable. This finding corroborates the study of Muhammed et al. (2026) who reported that health science students utilized online health information resources such as PubMed, Google Scholar, and HINARI for academic and research purposes. The implication is that online health information resources have become indispensable learning tools for health science students and should continue to receive institutional support.

Online Health Information Resources Utilized by Students of RIVCOHSMAT

The findings revealed that students utilize a variety of online health information resources, with Google Scholar, PubMed, and the World Health Organization (WHO) website emerging as the most frequently utilized resources. Other resources utilized by the respondents included the Nigeria Centre for Disease Control (NCDC) website, ScienceDirect, HINARI, and Medscape. The relatively lower utilization of HINARI and Medscape suggests that although these specialized resources are available, students may possess limited awareness or experience difficulties accessing or navigating them. The predominance of Google Scholar may be attributed to its ease of access, broad coverage of scholarly publications, and user-friendly interface. Similarly, the popularity of PubMed and the WHO website may be associated with their credibility and extensive collections of evidence-based medical literature and public health information.

The finding supports Ajuwon and Olorunsaye (2013), who found that clinicians and researchers in tertiary health institutions in Southwestern Nigeria extensively utilized HINARI resources, with MEDLINE/PubMed and full-text journal articles being the most frequently accessed resources. The implication is that institutions should create greater awareness of specialized health databases and provide continuous training to broaden students' utilization of high-quality evidence-based information resources.



Digital Health Literacy and Utilization of Online Health Information Resources

The study established a strong positive and statistically significant relationship between digital health literacy and the utilization of online health information resources among students of RIVCOHSMAT. This indicates that students with higher levels of digital health literacy are more likely to effectively utilize online health information resources than students with lower levels of digital health literacy. The finding suggests that digital health literacy significantly enhances students' ability to search for, retrieve, evaluate, interpret, and utilize credible online health information for academic learning, research, and healthcare decision-making. This finding may be explained by the fact that students who possess stronger digital health literacy competencies are better equipped to formulate effective search strategies, identify authoritative information sources, evaluate information credibility, and apply retrieved health information appropriately. Consequently, improvements in digital health literacy are likely to promote greater utilization of evidence-based online health information resources. Htay et al. (2022) found that higher levels of digital health literacy were associated with more effective online health information-seeking behaviour and greater satisfaction with the health information obtained among university students. The implication of this finding is that strengthening digital health literacy through curriculum integration, digital skills training, and information literacy programmes will enhance students' effective utilization of online health information resources and support evidence-based learning and healthcare practice.

Conclusion

This study examined the digital health literacy and utilization of online health information resources among public health students of Rivers State College of Health Science and Management Technology (RIVCOHSMAT). The findings revealed that the students generally possessed a high level of digital health literacy, which enabled them to effectively search for, understand, and utilize digital health information. The study also found that the utilization of online health information resources was high, with resources such as Google Scholar, PubMed, the World Health Organization (WHO) website, and the Nigeria Centre for Disease Control (NCDC) website being among the most frequently utilized for academic, research, and health-related purposes. Furthermore, the study established a strong positive and statistically significant relationship between digital health literacy and the utilization of online health information resources, indicating that students with higher levels of digital health literacy were more likely to access and effectively utilize credible online health information resources. This finding underscores the critical role of digital health literacy in promoting evidence-based learning, informed health decision-making, and the effective use of digital health resources among health science students.



Based on these findings, the study concludes that strengthening digital health literacy through curriculum integration, user education, and institutional support will further enhance students' capacity to identify, evaluate, and utilize credible online health information resources. Such efforts are essential for preparing competent health professionals capable of functioning effectively in an increasingly digital healthcare environment.

Recommendations

Based on the findings from the literature, the following recommendations are proposed:

1. **Strengthen digital health literacy through curriculum integration:** The study concludes that digital health literacy should be embedded into the curriculum to help students better identify, evaluate, and utilize credible online health information resources.
2. **Provide user education and digital skills training:** It recommends user education, digital skills training, and information literacy programmes to enhance students' effective utilization of online health information resources. This includes training on how to search for, retrieve, evaluate, and apply health information.
3. **Increase institutional support:** Institutions should continue to support online health information resources because they have become indispensable learning tools for health science students. This also includes creating greater awareness of specialized databases and providing continuous training.
4. **Improve awareness and access to specialized health databases:** Since resources like HINARI and Medscape had lower utilization, the implication is that institutions should create more awareness and training around these specialized, high-quality evidence-based information resources.



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