

## THE IMPACT OF DIGITAL INFORMATION RESOURCES USE ON KNOWLEDGE SHARING PRACTICES AMONG HEALTH PROFESSIONALS IN STATE-OWNED HOSPITALS IN OYO STATE, NIGERIA

by

## Owolabi, Ruth Onajite

Department of Information Resources Management, Babcock University, Ilishan-Remo, Ogun State O8138146883 owolabir@babcock.edu.ng

#### Banjo, Busola Yemisi

Department of Information Resources Management, Babcock University, Ilishan-Remo, Ogun State 08164688786

banjo0432@pg.babcock.edu.ng

&

#### Allahde SHEHU, PhD, CLn, MNLA

Department of Library and Information Science, Bingham University, Karu, Nasarrawa State, Nigeria; +2348033839359; alladefaith@gmail.com, shehu.allahde@bingham.edu.ng

#### Abstract

Knowledge sharing in healthcare involves the exchange of information, skills, and expertise among health professionals to improve clinical practices, patient outcomes, and overall healthcare delivery. Although knowledge sharing is beneficial its' benefits in some hospitals in Nigeria are low. However, in state-owned hospitals in Oyo State, Nigeria, there seem to be barriers to knowledge sharing that emanate from digital information resources use. The survey research design was adopted for the study. The study's population comprised 596 health professionals in state-owned hospitals in Oyo state. A proportionate sampling technique was used to select the 234 healthcare professionals as samples from the population. For data collection, a validated structured questionnaire was distributed with a 100% response rate. The study revealed a high level of participation in knowledge sharing among healthcare professionals, with an overall mean of 3.32; SD = .576)on a scale of 4; contributing to better teamwork (M = 3.71, SD = .455); 100% use face-to-face interaction and mobile phones; moderate level of engagement with digital resources among healthcare professionals, with an overall mean of 3.01; 65%) cite the inability to use modern technology as a barrier; digital resources use (Adj.  $R^2$ =.069, F (1, 232) =18.215, p <.005) has significant influence on knowledge sharing practices of health professionals. The study concluded that knowledge sharing is an avenue for health professionals to learn and relearn from the experiences of others thereby fostering a culture of continuous improvement in patient care. The study therefore recommended that health institutions should organize seminars and workshops frequently to encourage face-to-face transfer of knowledge and also set up online, instant messaging platforms to enable frequent sharing of knowledge.



Keywords: Digital Information Resources Use, Hospitals, Knowledge Sharing Practices, Health Professionals

## INTRODUCTION

In the rapidly evolving landscape of healthcare, the pursuit of excellence in patient care and outcomes remains a priority for health professionals. Physicians, nurses, pharmacists, therapists, and other specialists play pivotal roles in shaping the quality and effectiveness of healthcare delivery. Collaboration among professionals from various health disciplines enhances holistic patient care, with best practices involving effective communication and teamwork to address complex medical cases (Reeves, Xyrichis & Zwarenstein, 2017). Effective and safe drug administration is a cornerstone of patient care, requiring precision, adherence to protocols, and continuous innovation to ensure optimal outcomes and minimize adverse effects. Health professionals are at the forefront of harnessing technological advancements to enhance patient care, streamline processes, and stay updated on the latest medical research. The integration of digital health technologies, such as electronic health records, telemedicine, wearable devices, and mobile health apps, is reshaping healthcare delivery and patient engagement (Topol, 2019).

Healthcare organizations are highly knowledge-intensive, involving professionals with expertise in various disciplines who must stay updated on relevant technologies and knowledge areas. Effective knowledge sharing among healthcare practitioners is crucial for holistic patient care, fostering interdisciplinary collaboration, and enhancing the quality of healthcare services (Wu, Wang & Hsiao, 2021). Health professionals require updated information from credible digital resources to provide evidence-based care. Poor knowledgesharing practices can lead to medical errors, particularly in resource-limited countries.

The dynamic interplay between culture, information digital resources. and knowledge sharing practices significantly shapes how healthcare professionals access collaborate, information, and deliver services. Digital information resources (DIRs) can improve output and reduce errors associated with outdated print sources. They facilitate effective teamwork, real-time communication, and prompt have decision-making. DIRs clinical revolutionized how medical professionals access and share knowledge, providing tools like electronic medical databases, research articles, clinical guidelines, and telemedicine platforms (Jones & Chen, 2022).

Despite the benefits, challenges such as inadequate training, usability issues, and data security concerns can impede the effective utilization of these tools (Raza, Standing & Karim, 2018). Digital resources include online databases, e-books, ejournals, and other e-library resources, which are essential for meeting health professionals' information needs (Daniel & Agba, 2021). The use of these resources is not only ethical but considered best practice healthcare provision. Healthcare in institutions should prioritize creating a culture that supports knowledge sharing, providing access to digital information resources, and encouraging knowledgehealth sharing practices among professionals. ICT Investing in infrastructure, digital libraries, and databases, as well as providing training and establishing policies on digital resource use, can improve healthcare services and outcomes. This study investigates the impact of digital information resources on knowledge-sharing practices among health professionals in state-owned hospitals in Oyo State, Nigeria.



## **Statement of the Problem**

Knowledge sharing is a prime asset in organizations, particularly in knowledgeintensive sectors like healthcare. Effective knowledge sharing is essential for quality healthcare, enabling health professionals to learn from each other's experiences, share practices, and improve best patient outcomes. Despite these benefits, the level of knowledge sharing in some Nigerian hospitals remains low, as reported by Adeyemi and Olla (2020). In state-owned hospitals in Oyo State, Nigeria, barriers to knowledge sharing appear to be linked to the use of digital information resources. Limited resources, inadequate digital user-unfriendly infrastructure, and interfaces can create significant obstacles to effective knowledge sharing. Moreover, it has been observed that many medical professionals have not fully harnessed the benefits of emerging Information and Communication Technologies (ICT) to support collaborative health services. This gap suggests a lack of proper utilization of digital information resources to facilitate knowledge sharing. Current research is insufficient to understand the extent of digital information resource use and its impact on knowledge sharing among health professionals in state-owned hospitals in Oyo State.

Given this concerning situation, this study aims to investigate the use of digital information resources and knowledge sharing practices among health professionals in state-owned hospitals in Oyo State, Nigeria. By identifying the barriers and opportunities in leveraging digital tools for knowledge sharing, this research seeks to provide insights that can enhance healthcare delivery and outcomes in these settings.

## **Objective of the Study**

1. ascertain the extent of knowledge sharing practices among health

professionals in state-owned hospitals in Oyo State;

- 2. find out the channels for knowledge sharing of health professionals in stateowned hospitals in Oyo State;
- 3. determine the extent of digital information resources used by health professionals in state-owned hospitals in Oyo State;
- 4. determine the influence of digital information resources use on knowledge sharing practices of health professionals in state-owned hospitals in Oyo State;
- 5. identify the factors militating against knowledge sharing practices of health professionals in state-owned hospitals in Oyo State.

#### **Research Questions**

- 1. To what extent do health professionals participate in knowledge sharing practices in state-owned hospitals in Oyo State?
- 2. What are the channels for knowledge sharing practices of health professionals in state-owned hospitals in Oyo State?
- 3. What is the extent of digital information resources used by health professionals in state-owned hospitals in Oyo State?
- 4. What are the factors militating against knowledge sharing practices of health professionals in state-owned hospitals in Oyo State?

## **Research Hypotheses**

HO1: There is no significant influence of digital information resources use on knowledge sharing practices of health professionals in state-owned hospitals in Oyo State;

## **REVIEW OF LITERATURE**

# Knowledge Sharing among Health Professionals

In today's dynamic healthcare environment, knowledge is crucial for improving decision-making, increasing productivity,



and creating a sustainable competitive advantage. Organizations, especially in the health sector, are constantly seeking effective ways to acquire, store, share, and apply knowledge within their environments. Knowledge sharing, an essential component of knowledge management, involves the clarification and dissemination up-to-date of health information to employees, decision-makers, and stakeholders through interactive communication platforms (Wubante et al., 2022).In healthcare, knowledge sharing encompasses the transfer of both tacit (unrecorded) and explicit (recorded) knowledge between individuals, which is fundamental for fostering collaborative efforts and enhancing patient care (Omotosho & Popoola, 2019). Effective sharing enables knowledge health professionals to learn from each other's experiences, share best practices, and improve patient outcomes. It is a key driver for maintaining the high standards of care required in healthcare organizations (Bagais et al., 2020).

Knowledge sharing can be defined as the ongoing process of exchanging knowledge individuals, between groups, and organizations through various knowledge exchange channels (Kipkosgei et al., 2020). For healthcare professionals, this process interpersonal communication, includes social interactions. and collaborative activities that facilitate the exchange of medical expertise, clinical experiences, research findings, and best practices (Fahmi et al., 2020). It involves both tacit knowledge sharing—sharing personal experiences, expertise, and skills-and explicit knowledge sharing, which includes sharing codified knowledge and formal information such as documents, reports, and guidelines (Jiang & Chen, 2021).

The importance of knowledge sharing in healthcare cannot be overstated. At the individual level, it helps professionals perform their functions more effectively, promotes career advancement, and provides personal satisfaction. At the organizational level, knowledge sharing leads to increased efficiency reduced training costs, and minimized risk of uncertainty (Al-Saffara & Obeidat, 2020). It also enhances capabilities organizational through individual learning, thereby improving overall performance (Kim& Yun, 2015). Despite its benefits, knowledge sharing within healthcare organizations can be complex. Challenges such as limited resources, inadequate digital infrastructure, and user-unfriendly interfaces can impede effective knowledge sharing. These barriers are particularly evident in state-owned hospitals in Oyo State, Nigeria, where the integration of digital information resources is often hampered by such limitations (Adeyemi & Olla, 2020). Many medical professionals in these hospitals have not fully leveraged the potential of emerging Information Communication and Technologies (ICT) to support collaborative health services.

## Digital Information Resources Use by Health Professionals

Digital information resources (DIRs) have become indispensable tools in the healthcare sector, transforming how health professionals access, manage, and apply medical knowledge in their practice. These databases including resources. like Medline, PubMed, CINAHAL Plus, and EMBASE, offer comprehensive access to biomedical and health journals, nursing literature, international research on drugs and diseases, and best practice guidelines (Muhammed, Buba & Song, 2021). DIRs enhance healthcare service delivery by providing crucial information quickly, supporting evidence-based decisionmaking, and facilitating continuous professional development (Berg et al., 2020; Smith & Gardner, 2021).



The adoption of digital information resources is closely linked to the promotion of evidence-based practice. Databases such as PubMed and UpToDate provide health professionals with the latest research findings, clinical trials, and systematic reviews, empowering them to make informed decisions based on the best available evidence (Chang & Hsu, 2019). Additionally, online platforms offer educational materials, webinars. and interactive modules that help practitioners stay updated on medical advancements and fulfill continuing medical education requirements (Smith & Johnson, 2018).

In clinical settings, the integration of DIRs decision has into support systems revolutionized patient care. Clinical Decision Support Systems (CDSS) use evidence-based guidelines and patient data to assist health professionals in diagnosing selecting treatments. diseases. and improving patient outcomes (Osheroff et al., 2019). The rise of telemedicine and telehealth services has further emphasized the importance of DIRs, allowing health professionals conduct to virtual consultations, access patient records remotely, and collaborate with colleagues in real-time (Bashshur et al., 2021).Despite the numerous benefits of DIRs, challenges such as information overload, privacy concerns, and the need for digital literacy among health professionals persist. Ensuring data security and maintaining the quality of digital resources are ongoing considerations (Bates et al., 2020). Studies have shown that while health professionals in Nigeria use resources like Hinari and Medline, they often face issues such as poor internet connectivity and inadequate evaluation facilities (Adesoye & Amusa, 2013; Samuel et al., 2016).

Research indicates that digital information resources support quick decision-making, which is crucial for healthcare professionals. They use these resources for clinical work, patient care, research. purposes, examination and general healthcare information (Jamshidi et al., 2012; Younger, 2010). However, barriers such as limited knowledge of available resources and insufficient digital infrastructure remain significant obstacles (Muhammed, Buba & Song, 2021; Tesfa, Kalayou & Zemene, 2021). To optimize the use of DIRs among health professionals in state-owned hospitals in Oyo State, Nigeria, it is essential to address these challenges. This study aims to investigate the impact of DIR use on knowledge practices sharing among health professionals in these hospitals. Bv identifying barriers and opportunities, this research seeks to enhance healthcare delivery and outcomes in these settings.

## Digital Information Resources use and Knowledge Sharing among Health Professionals

Digital information resources (DIRs) have fundamentally transformed healthcare, providing health professionals with unprecedented access medical to knowledge and fostering new avenues for knowledge sharing and collaboration. DIRs include electronic health records (EHRs), medical databases, clinical decision support systems (CDSS), and telemedicine platforms. These resources have reshaped the way healthcare knowledge is accessed, shared, and applied, enabling real-time research findings, to clinical access and patient data, thereby guidelines. evidence-based facilitating decisionmaking at the point of care (Hersh et al., 2013).

CDSS, integrated with digital resources, have emerged as powerful tools for knowledge sharing. These systems offer real-time, evidence-based recommendations, supporting health professionals in diagnosis, treatment



planning, and patient management. By providing accessible readily clinical guidance, CDSS promote knowledge sharing and enhance the quality of care (Berner et al., 2015). The recent surge in telemedicine has further highlighted the role of DIRs in knowledge sharing. Telemedicine tools and digital platforms transcend geographical boundaries, enabling health professionals to engage in collaborative knowledge sharing irrespective location. Remote of consultations facilitated by telemedicine allow experts to share clinical insights, discuss complex cases, and collaborate on patient care in real-time, fostering a culture of collaborative learning and knowledge transfer within healthcare teams (Bashshur et al., 2021).

Despite the benefits, challenges exist in the utilization of DIRs for knowledge sharing. Health professionals often face information overload, concerns about data security, and the need for digital literacy (Hersh et al., 2013). Overcoming these challenges is crucial for effective knowledge sharing in the digital age. Ensuring robust digital infrastructure and providing training on digital literacy can enhance the effective use of DIRs in healthcare.

Digital information resources, produced through information and communication

technologies, come in various forms such as CD-ROMs, e-books, online publications, bibliographic databases, e-journals, and other web-based content (Okoro, 2008). These resources make knowledge more accessible, interactive, and contextualized. Health professionals can now share ideas, communicate, and discuss relevant issues without geographical limitations, thanks to digital devices (Obaseki & Amune, 2009).In state-owned hospitals in Oyo State, Nigeria, leveraging DIRs can significantly enhance knowledge sharing among health professionals. Addressing accessibility issues and enhancing digital literacy are essential steps to harness the full potential of these resources for improved healthcare delivery. This study aims to investigate the impact of DIR use on knowledge sharing practices among health professionals in these hospitals.

## METHODOLOGY

## **Population of the Study**

The study adopted survey research design. The population for this study comprised 596 health professionals in state-owned hospitals in Oyo state, Nigeria. The population of health professionals according to the Department of Planning, Research and Statistics (DPRS), Oyo State Hospital Management Board can be found in Table 3.1

				······································	
Health professionals	State	State	State	Adeoyo Maternity	Total
	Hospital,	Hospital,	Hospital,	Teaching Hospital,	
	Ogbomoso	Оуо	Saki	Yemetu Ibadan	
Doctors/Physician	18	19	15	15	67
Pharmacists	9	6	7	10	32
Medical Records	15	16	9	15	55
Officers					
Nurses	150	99	89	104	442
Total	192	140	120	144	596

 Table 3.1
 Population of Health Professionals in the State-owned Hospitals, Oyo State



## Sample size and sampling techniques

The sample size for this study was determined using Krejie and Morgan's (1970) table of sample size determination. For a population of more than 550 to 600, 234 is considered an adequate sample. The proportionate sampling technique was used to select the sample from the population.

## Analysis and Presentation of Research Question

Characteristics	Classification	Frequency	Percentage
Institution	Adeoyo Maternity Teaching Hospital	46	19.7
	Oyo State General Hospital, Saki	51	21.8
	Oyo State General Hospital, Ogbomosho	79	33.8
	Oyo State General Hospital, Oyo	58	24.8
Profession	Doctor/Physician	23	9.8
	Pharmacist	12	5.1
	Nurse	191	81.6
	Records Officer	8	3.4
Gender	Male	97	41.5
	Female	135	57.7
	No response	2	0.9
Age	20-30yrs	34	14.5
	31-40yrs	113	48.3
	41-50yrs	69	29.5
	51-60yrs	18	7.7
Marital Status	Single	81	34.6
	Married	153	65.4
Years of experience	<5yrs	70	29.9
	6-10yrs	71	30.3
	11-15yrs	38	16.2
	16yrs and above	35	15.0
	No response	20	8.5

Table 4.1: Demographic characteristics of the respondents

Source: Researchers' Field Work, 2024

Table 4.1 shows that there were 135 (57.7%) Female and 97 (41.5%) Male Professionals in the study. On age, 113 (48.3%) were 31 to 40 years old, while 69 (29.5%) were 41 to 50 years old. The result also revealed that 153 (65.4%) were married and 81 (34.6%) were single. Also, 70 (29.9%) have gained work experience of less than 5 years, and 71 (30.3%) have worked for 6 to 10 years.

## **Analysis and Presentation of Research Questions**

Research Question One: To what extent do Health Professionals participate in Knowledge Sharing Practices in State Hospitals in Oyo State?



#### Table 4.2: Extent of Knowledge Sharing by Health Professionals

Knowledge sharing practices	<b>VHE</b> (%)	HE (%)	LE (%)	VLE (%)	Mean	SD
	4	3	2	1		
<b>Experience in medical procedures</b> I regularly share my experiences with medical procedures during team discussions to contribute to the collective knowledge within the hospital	61(26.1)	159(67.9)	14(6)	0	3.46 3.20	.526 .530
I actively seek feedback from colleagues after performing medical procedures to enhance my own knowledge and skills	80(34.2)	139(59.4)	15(6.4)		3.28	.575
I believe that sharing experiences on medical procedures is essential for fostering a culture of continuous improvement in patient care.	127(54.3)	96(41)	11(4.7)	0	3.50	.588
I am open to learning from the experiences of my colleagues when it comes to handling specific challenges or complexities in medical procedures.	147(62.8)	87(37.2)		0	3.63	.484
I believe that sharing experiences with medical procedures contributes to better teamwork and collaboration among healthcare professionals.	166(70.9)	68(29.1)		0	3.71	.455
Knowledge of emerging digital health tech & information resources				0	3.14	.639
I share knowledge on health-related policies of international multilateral health organizations such as WHO, etc.	86(36.8)	148(63.2)		0	3.37	.483
I share knowledge on research and publication outlets with my colleagues.	54(23.1)	151(64.5)	29(12.4)	0	3.11	.587
I share knowledge of health-related policies of the State and Federal Government of Nigeria.	64(27.4)	132(56.4)	38(16.2)	0	3.11	.652
I share knowledge on online information tools that can assist in digital information resource access and retrieval.	51(21.8)	168(71.8)	4(1.7)	11(4.7)	3.11	.643
I share knowledge on web-based point- of-care resources among my colleagues	68(29.1)	114(48.7)	38(16.2)	14(6)	3.01	.834
Overall Mean					3.33	.598

Source: Researchers' Field Work, 2024

Key: VHE = Very High Extent, HE = High Extent, LE = Low Extent and VLE = Very Low

Extent.

Table 4.2 reveals a high level of participation in knowledge sharing among healthcare professionals, with an overall mean of 3.32 (SD = .576). Key areas of engagement include sharing experiences on medical procedures (M = 3.50, SD = .588) and contributing to better teamwork (M = 3.71, SD = .455). Practitioners actively seek feedback to enhance skills (M = 3.28, SD = .575) and are open to learning from colleagues (M = 3.63, SD = .484). Knowledge sharing on digital health technology has a mean of 3.14 (SD = .639) while sharing information on international health policies scores 3.37 (SD = .483). Overall, the data



underscores a strong culture of collaboration and continuous improvement in patient care within the hospital.

**Research Question Two**: What are the channels for knowledge-sharing practices of Health Professionals in State Hospitals in Oyo State?

 Table 4.3 Channels Used for Knowledge Sharing

	Yes (%)	No (%)
Through face-to-face interaction and mobile phone	234(100)	0
Through Bulletin boards and Discussion board	203(86.8)	31(13.2)
Through the deposition of knowledge in the	202(86.3)	32(13.7)
organization's knowledge repository		
Through the library blog and library portal	199(85)	35(15)
Through e-mail and newsletter	174(74.4)	60(25.6)
Through Facebook, X (Twitter) and Yahoo! Messenger	156(66.7)	78(33.3)
Through Web forum	145(62)	89(38)
Others: Seminar	5(2.1)	0%
WhatsApp	11(4.7)	0%

Source: Researchers' Field Work, 2024

The data shows various methods of knowledge sharing among healthcare professionals. All respondents (100%) use face-to-face interaction and mobile phones. Bulletin boards and discussion boards are used by 86.8%, while 86.3% deposit knowledge in the organization's repository. Library blogs and portals are used by 85%, and 74.4% utilize email and newsletters. Social media platforms like Facebook, Twitter, and Yahoo Messenger are used by 66.7%, and web forums by 62%. Additionally, seminars (2.1%) and WhatsApp (4.7%) are less commonly used. This highlights a diverse range of communication channels employed for knowledge dissemination.

**Research Question three**: What is the extent of Digital Information Resources used by Health Professionals in State Hospitals in Oyo State?

Digital resources	VHE	HE	LE	VLE	Mean	SD
	(%)	(%)	(%)	(%)		
Access Medicine	89(38)	125(53.4)	20(8.5)		3.29	.617
Up-to-date	76(32.5)	140(59.8)	18(7.7)		3.25	.585
Internet archives resources	116(49.6)	62(26.5)	49(20.9)	7(3)	3.23	.881
Global Health	77(32.9)	133(56.8)	24(10.3)		3.23	.618
Clinical Key	86(36.8)	105(44.9)	43(18.4)		3.18	.721
Medscape Drugs & Diseases	67(28.6)	137(58.5)	30(12.8)		3.16	.625
Online database	98(41.9)	78(33.3)	51(21.8)	7(3)	3.14	.860
Science Direct	75(32.1)	116(49.6)	43(18.4)		3.14	.698
Electronic data archives	90(38.5)	83(35.5)	61(26.1)		3.12	.795
Decision Support in Medicine	72(30.8)	133(56.8)	15(6.4)	14(6)	3.12	.774
Medline Plus	76(32.5)	121(51.7)	20(8.5)	17(7.3)	3.09	.834

Table 4.4 Extent	of Digital Res	ources Use by	<b>Health Pr</b>	ofessionals
------------------	----------------	---------------	------------------	-------------



Nursing Reference Center	69(29.5)	124(53)	34(14.5)	7(3)	3.09	.744
Electronic Books	76(32.5)	102(43.6)	49(20.9)	7(3)	3.06	.808
Electronic newspaper	96(41)	60(25.6)	71(30.3)	7(3)	3.05	.914
Reference databases	49(20.9)	153(65.4)	25(10.7)	7(3)	3.04	.660
Clinical Evidence	57(24.4)	136(58.1)	34(14.5)	7(3)	3.04	.714
Anatomy. Tv	65(27.8)	124(53)	28(12)	17(7.3)	3.01	.831
DynaMed	34(14.5)	162(69.2)	38(16.2)		2.98	.556
ACP Smart Medicine	48(20.5)	145(62)	24(10.3)	17(7.3)	2.96	.774
Cochrane Clinical Answer	55(23.5)	138(59)	17(7.3)	24(10.3)	2.96	.848
BMJ Best Practice	45(19.2)	140(59.8)	42(17.9)	7(3)	2.95	.701
Electronic Journals	54(23.1)	116(49.6)	57(24.4)	7(3)	2.93	.769
Online Magazines	87(37.2)	62(26.5)	64(27.4)	21(9)	2.92	1.001
5 Minute Consult	47(20.1)	135(57.7)	35(15)	17(7.3)	2.91	.797
Compact Disc - Read Only Memory (CD-	53(22.6)	103(44)	78(33.3)		2.89	.742
ROM)						
Electronic theses and dissertations	40(17.1)	116(49.6)	67(28.6)	11(4.7)	2.79	.777
Online public access catalogue (OPAC)	57(24.4)	92(39.3)	61(26.1)	24(10.3)	2.78	.932
E-Images	44(18.8)	93(39.7)	90(38.5)	7(3)	2.74	.793
E-audio visual resources	38(16.2)	93(39.7)	92(39.3)	11(4.7)	2.68	.801
E-serials	46(19.7)	85(36.3)	82(35)	21(9)	2.67	.893
Overall Mean					3.01	.768

Source: Researcher's fieldwork, 2024

Key: VHE = Very High Extent, HE = High Extent, LE = Low Extent and VLE = Very Low Extent

Table 4.4 reveals a moderate level of engagement with digital resources among healthcare professionals, with an overall mean of 3.01 (SD = .768). Key areas of high engagement include Access Medicine (M = 3.29, SD = .617) and Up-to-date (M = 3.25, SD = .585). Practitioners also show significant use of Internet archives resources (M = 3.23, SD = .881) and Global Health (M = 3.23, SD = .618). Moderate engagement is seen with Clinical Key (M = 3.18, SD = .721) and Medscape Drugs & Diseases (M = 3.16, SD = .625). Resources like Online Databases (M = 3.14, SD = .860) and Science Direct (M = 3.14, SD = .698) also reflect considerable use. Less engagement is noted for Electronic Data Archives (M = 3.12, SD = .795) and Decision Support in Medicine (M = 3.12, SD = .774). Lower engagement levels are observed for Dynamed (M = 2.98, SD = .556) and ACP Smart Medicine (M = 2.96, SD = .774). Overall, the data highlights a varied approach towards using digital resources, emphasizing certain tools more than others for enhancing knowledge and patient care practices.

**Research Question Five**: What are the factors that militate against Knowledge Sharing Practices of Health Professionals in State Hospitals in Oyo State?



Table 4.5 (	Challenges of	Knowledge	Sharing	<b>Practices among</b>	Health	Professionals
-------------	---------------	-----------	---------	------------------------	--------	---------------

Factors	Yes (%)	No (%)
Inability to use modern technology in knowledge	152 (65)	82 (35)
sharing		
There are no incentives or rewards for knowledge	132 (56.4)	102 (43.6)
sharing		
Individual factors	127 (54.3)	107 (45.7)
Lack of understanding of how to effectively share	113 (48.3)	121 (51.7)
knowledge		
Lack of time	111 (47.4)	123 (52.6)
Reliance on technology	106 (45.3)	128 (54.7)
Lack of social networking skills	88 (37.6)	146 (62.4)
Failure to appreciate the value of sharing	88 (37.6)	146 (62.4)
knowledge		
Communication barrier skills	74(31.6)	160 (68.4)

Source: Researchers' Field Work

Table 4.5: The survey highlights various factors influencing knowledge sharing among healthcare professionals. A significant number (65%) cite the inability to use modern technology as a barrier. Additionally, 56.4% note the absence of incentives or rewards, and 54.3% mention individual factors as hindrances. Other challenges include lack of understanding in effective knowledge sharing (48.3%), time constraints (47.4%), and reliance on

technology (45.3%). Moreover, 37.6% struggle with social networking skills and fail to appreciate the value of sharing knowledge. Communication barriers affect 31.6% of respondents. These findings underscore the multifaceted nature of challenges in fostering effective knowledge sharing practices. Addressing these barriers could enhance collaboration and improve patient care outcomes within healthcare settings.

## **Test of Hypotheses**

Table 4.6 Influence of digital	resources use on	knowledge s	haring prac	tices of h	lealth
0		0			

	•	•	
nro	TOC	CIAR	กกได
PT U	103	5101	iais

Variables	В	Std. Error	В	Т	Sig.	$R^2$	Adj. R <sup>2</sup>	F (df)	Anova Sig.
(Constant)	58.038	2.034		28.536	.000	.073	.069	(1, 232) 18.215	.000
Digital Resources Use	.095	.022	.270	4.268	.000				

Dependent variable: Knowledge Sharing Practices

The result presented in Table 4.8 shows the influence of digital resources use on the knowledge sharing practices of health professionals in state hospitals in Oyo state. The result reveals that digital resources use  $(Adj. R^2=.069, F (1, 232) = 18.215, p < .005)$  has a significant influence on

knowledge sharing practices of health professionals. The result implies that digital resource use has the minimal capability to influence knowledge sharing among health professionals and can cause only 6.9% changes in knowledge sharing practices of health professionals and that the remaining



93.1% can be accounted for by other variables not included in this study. Therefore, the null hypothesis is rejected and restated thus: Digital resources use has a significant influence on Knowledge Sharing Practices of Health Professionals in State Hospitals in Oyo State.

## Discussion of Finding

This study investigated the influence of work culture and the use of digital information resources on knowledge sharing practices of health professionals in state hospitals in Oyo State. One of the objectives was to examine the extent of professionals' health participation in knowledge sharing. The study found that professionals participated health in knowledge sharing to a very high extent which implied that health professionals make an effort in the sharing of knowledge. The study also found that they find out the channels used by health professionals in sharing knowledge. The result revealed that they use face-to-face interaction and mobile phones when sharing knowledge. According to Majoor et al. (2021), the advent of digital platforms and health information systems has transformed knowledge sharing in healthcare. Modern technology, including electronic health records and telemedicine tools, can facilitate rapid and secure information exchange among professionals, transcending geographical boundaries. This finding corroborates that of Adeyemi and Olla (2020) who found that the most frequently used channels through which healthcare providers in Gombe State share knowledge included the use of discussion groups and bulletin boards.

This study was set to find out the extent of digital resources used by health professionals in state hospitals in Oyo State. The finding of this study revealed that health professionals in state hospitals use digital information resources to a high extent. This supports the finding of Adesoye and Amusa (2013), who found that health professionals in Nigeria mostly use HINARI and Medline, followed by electronic journal websites. They also use these resources mainly for clinical work and patient-care information, research, examination purposes, and general healthcare information to update their knowledge. Most of them also perceived those EHIRs as relevant to their information needs. The finding also supports that of Nwafor-Orizu and Onwudinjo (2015) who found that health information resources are available to doctors and that they use them for different purposes. This finding also supports that of Samuel et al (2016) who found that health professional utilizes EHIRs, to obtain the latest health information as well as for research purposes. According to Bashshur et al. (2021), health professionals utilize digital platforms to conduct virtual consultations, access patient records remotely, and collaborate with colleagues in real time, enhancing the delivery of care. This study also found that the digital information resources used are access medicine, up-to-date, internet archives resources, global health, clinical keys, online databases electronic books, and nursing reference centres amongst others. This finding also supports that of Muhammed et al., (2021) who found that health professionals use search engines, online databases and smartphones, Medline Biomedical and Health Resources, Global Infectious Disease and Epidemiology Network and Nursing Reference Center Plus to enhance the provision of health education in preventing the spread of contagious diseases.

On the barriers that affect knowledge sharing, the study found that the inability to use modern technology in knowledge sharing was a major barrier to knowledge sharing. Similarly, that lack of incentives or rewards prevented them from participating



in sharing knowledge. This finding supports that of Adeveni and Olla (2020), who found that the main barriers to knowledge sharing included bureaucratic procedures involved in knowledge sharing, lack of an open-minded sharing environment, lack of trust in other peoples' knowledge, no proper organizational guidelines for sharing, Lack of training, lack of teamwork and lack of reward schemes for knowledge shared. The study also found that lack of communication skills, failure to appreciate the value of sharing knowledge and lack of social networking skills were not factors militating against knowledge sharing of health professionals in the state.

One hypothetical assumption was made for this study. It was that there was no significant influence of digital resource use on knowledge sharing practices of health professionals. The study also established that digital resource use has a significant influence on knowledge sharing practices of health professionals. Digital information resources have helped in no small measure to expand knowledge access and increase collaboration and knowledge diffusion professionals. among health Digital resources are not only utilized through traditional laptop and desktop computers. information Digital resources make knowledge more accessible, interactive, and very importantly, contextualized. People of the same profession can today share ideas, communicate and discuss experiences on relevant career issues without necessarily sitting together in one geographical location - courtesy of digital devices. This finding supports the position of Bashshur et al. (2021), who posits that digital platforms and telemedicine tools transcend geographical boundaries, enabling health professionals to engage in collaborative knowledge sharing irrespective of location. Telemedicine facilitates remote consultations, allowing experts to share clinical insights, discuss complex cases, and collaborate on patient care in real time. This seamless communication and data exchange promote a culture of collaborative learning and knowledge transfer within healthcare teams.

## Conclusion

This study embarked on investigating the influence of digital resources use on the knowledge sharing practices of health professionals in state hospitals in Oyo state. The study therefore established that knowledge sharing improves organizational capabilities thereby strengthening and improving the quality of health care and services. It also established that sharing knowledge saves time as best practices are shared and evidence-based procedures are documented. Sharing knowledge is also an avenue for health professionals to learn and relearn from the experiences of others thereby fostering a culture of continuous improvement in patient care.

This study has established the importance of the use of digital resources in the healthcare sector as it has been proven to promote real-time health service delivery, as well as provide current up-to-date information on best practices. This study concludes based on its findings that a work culture that promotes togetherness and interdependence will influence knowledge sharing positively. It also concludes that the use of digital information resources is vital to enhance quality healthcare delivery by improving the knowledge of health professionals.

## Recommendations

The study found that the most used channel for knowledge sharing is face-to-face and mobile phone, therefore it recommends that health institutions should organize seminars and workshops frequently to encourage face-to-face transfer of knowledge; and also set up online, instant messaging platforms to enable frequent sharing of



knowledge. The extent of digital information resources use was found to be high but not very high, therefore, the study recommends that health professionals avail themselves of the wealth of knowledge deposited in digital resources by making time to access them more frequently.

The inability to use modern technology is a factor militating knowledge sharing of health professionals in Oyo state as established by the findings of this study. The study therefore recommends that health professionals should update themselves on the modern technologies available to maximize their use in sharing knowledge. The study also found that a lack of incentives for knowledge sharing prevents health professionals from sharing knowledge. The study therefore recommends that hospital administration should provide incentives and create a reward system to encourage the sharing of knowledge. Digital information resources use was also found to have a weak but significant influence on the knowledge sharing practices of Health professionals in State Hospitals in Oyo State, Nigeria. Therefore, the study recommends that the use of digital information resources be encouraged by hospital management as that would also enhance the sharing of the knowledge gained.

#### REFERENCES

- Abdul, Nasser & Al-Saffar, Ghani & Obeidat, Abdallah. (2019). The effect of total quality management practices on employee performance: The moderating role of knowledge sharing. Marketing Letters. 10. 77-90. 10.5267/j.msl.2019.8.014.
- Adesoye, A. E., & Amusa O. I. (2013). Use of electronic resources in health sciences institutions in Ogun State, Nigeria. *PNLA Quarterly*, 77(3), 28-41.
- Adeyemi, E. A., & Olla G. O. O. (2020). Knowledge sharing among healthcare providers in Gombe State, Nigeria. *Journal of Health Information and Librarianship*, 5(1), 26-42.
- Bashshur, R. L., Doarn, C. R., Frenk, J. M., Kvedar, J. C., Shannon, G. W., & Woolliscroft, J. O. (2021). Beyond the COVID pandemic, telemedicine, and health care. *Telemedicine and e-Health*, 26(11), 1310-1313.
- Bates, D. W., Landman, A. Levine, D. M., & Wright, A. (2020). Electronic health records and health care transformation. *Health Affairs*, 39(4), 647-654.
- Berg, M., Lindhult, E., & Muntlin Athlin. Å. (2020). Academic detailing, the gold standard for education outreach: a review of the literature. Medical Education, 54(4), 326-333.



- Chang, P. & Hsu, W. (2019). A bibliometric analysis of digital health technologies research trends in PubMed and Scopus. *Journal of Medical Imaging and Health Informatics*, 9(3), 546-552.
- Daniel, A. A. R., & Agba, U. M. (2021). Students' demographic variables as determinants of utilization of information resources among undergraduates of universities in South-South Nigeria. *IP Indian Journal of Library Science and Information Technology*, 6(1), 33-39.
- Hersh, W. R., Weiner, M. G., Embi, P. J., Logan, J. R., Payne, P. R., Bernstam, E. V. & Saltz, J. H. (2013). Caveats for the use of operational electronic health record data in comparative effectiveness research. *Medical care*, 51(3).
- Jamshidi, L., Mehrdad, A. G., & Jamshidi, S. (2012). Assessing nursing students' knowledge and attitudes about computers and the internet. *Procedia-Social and Behavioral Sciences*, 46, 1371-1374.
- Jiang D., Chen Z. (2021). Innovative enterprises development and Employees' knowledge sharing behaviour in China: the role of leadership style. *Front. Psychol.* 12:747873. doi: 10.3389/fpsyg.2021.747873
- Jones, S., White, J., & Clark, L. (2019). Adhocracy culture and innovation in healthcare settings. *Journal of Healthcare Management*, 64(2), 91-98.

- Kim, S. L., and Yun, S. (2015). The effect of co-worker knowledge sharing on performance and its boundary conditions: An interactional perspective. *Journal of Applied Psychology*, Vol.100 No.2, pp.575.
- Kipkosgei F., Son S. Y., Kang S. W. (2020). Coworker trust and knowledge sharing among public sector employees in Kenya. *Int. J. Environ. Res. Public Health* 17:2009. doi: 10.3390/ijerph17062009
- Majoor, B. C. J., Sunaert, P., & Rahal, R. M. (2021). The Influence of Hospital Work Environment on Knowledge Sharing, Teamwork, and Patient Safety. *The Journal of Nursing Administration*, 51(2), 89– 94.
- Muhammed, A.A., Buba, A.A. and Song, U.M. (2021). Factors influencing the information needs of nurses for healthcare delivery in Nigeria: a survey of general hospitals in Jigawa State, Nigeria. *Information Technologist*, 15(2).
- Nwafor-Orizu, O. E., & Onwudinjo, O. T. (2015). Availability and use of health information resources by doctors in teaching hospitals in southeast Nigeria. *Inf Knowl Manag*, 5(9), 102-108.
- Obaseki T. I &Amune, J. B. (2009). Electronic resources: avenue for information resources acquisition in the21st century Nigeria tertiary institutions. A paper presented at the AGM of NLA Cross River State Chapter conference. At UNICAL conference hotel Calabar 9th-11th November.



- Okoro, H.C (2008). Virtual library for students' research and study. In Achebe, N. (ed) Library information literacy for higher education. Enugu: Nigeria Library Association.
- Omotoso, A.M. &Popoola, S.O. (2019) Knowledge Sharing and Organisational Learning as Correlates of Service Delivery in Private University Librariesin South-west, Nigeria. Journal of applied Information Science and Technology, 12 (2), 1-9
- Osheroff, J. A., Teich, J. M., Levick, D., Saldana, L., Velasco, F., Sittig, D. F., ... & Middleton, B. (2019). Improving Outcomes with Clinical Decision Support: An Implementer's Guide. Chicago: HIMSS.
- Raza, S., Standing, C., & Karim, A. (2018). Digitalization and knowledge sharing in healthcare: a literature review. Studies in Health Technology and Informatics, 251, 283-286.
- Reeves, S., Xyrichis, A., & Zwarenstein, M. (2018). Teamwork, collaboration, coordination, and networking: Why we need to distinguish between different types of interprofessional practice. *Journal of interprofessional care*, *32*(1), 1-3.
- Samuel S, Bayissa G, Asaminewu S, Alaro T. (2016). Electronic information sources access and use for healthcare services in governmental and non-

governmental hospitals of western Oromia, Ethiopia: a cross-sectional study. *Ethiop J Health Sci.* 26(4):341–350.

- Smith, A. G., Johnson, J. M. (2018). Emerging technologies and their impact on healthcare. *Journal of Healthcare Information Management*, 32(4), 14–20.
- Smith, R., & Gardner, M. (2021). Healthcare and the rise of the digital twin: The future of care delivery. *Healthcare Transformation*, 1(1), e000016.
- Tesfa, G. A., Kalayou, M. H., & Zemene, W. (2021). Electronic healthinformation resource utilization and its associated factors among health professionals in Amhara regional state teaching hospitals, Ethiopia. Advances in Medical Education and Practice, 195-202.
- Topol, E. J. (2019). High-performance medicine: The convergence of human and artificial intelligence. *Nature Medicine*, 25(1), 44-56.
- Wu, L., Cao, Z., & Zhang, W. (2021). Investigating the influence of employees' knowledge sharing on innovation capacity in Chinese healthcare industry. *Journal of Knowledge Management*, 25(2), 353-374.
- Wubante, S. M., Tegegne, M. D., Melaku, M. S., & Walle, A. D. (2022). Knowledge sharing practice and its associated factors among health professionals in Ethiopia: Systematic review and metaanalysis. *Informatics in Medicine* Unlocked, 31, 100967