ASSESSMENT OF RECORDS MANAGEMENT SOFTWARE AMONG HEALTHCARE PERSONNEL IN HANDLING PATIENTS' MEDICAL RECORDS IN GENERAL HOSPITALS, ZAMFARA STATE, NIGERIA

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ABSTRACT
This study investigates records management software skills among healthcare personnel responsible for managing patients' medical records within General Hospitals in Zamfara State, Nigeria. A quantitative research methodology, employing a cross-sectional survey design, was utilized to assess the skills possessed by records officers. The target population comprised all 110 records officers in General Hospitals across Zamfara State. Data was collected using a self-developed semi-structured questionnaire and analyzed using descriptive statistics with the Statistical Package for Social Sciences (SPSS) Version 23. The results revealed varying levels of proficiency among records officers in different records management software skills. Word processing skills emerged as the most prevalent, with 89 respondents (19.5%) possessing proficiency in this area, followed by Internet skills (17.8%), social media skills (16.0%), and networking skills (11.4%). However, skills such as software installation and troubleshooting were found to be less prevalent, with only 2 respondents (0.4%) possessing proficiency in each area. This suggests a potential gap in technical expertise required for installing software components and resolving technical issues within record management systems. The study concluded that the prevalence of word processing skills indicates a strong foundation in basic computer literacy and document management among records officers. However, the lower frequency of software installation and troubleshooting skills highlights a need for targeted training programs to enhance technical capabilities in these areas. The study recommends that, addressing this gap could improve the effective utilization and maintenance of record management systems within General Hospitals in Zamfara State, ultimately enhancing patient record management efficiency and healthcare service delivery. These findings diverge from previous research, indicating a discrepancy in the skills possessed by records officers compared to other settings, suggesting the need for context-specific interventions tailored to the needs of healthcare personnel in Zamfara State.
Keywords: *Records Management, Software, Healthcare Personnel, Patients', Medical Records, General Hospitals*

INTRODUCTION
Efficient management of patients' medical records is essential for ensuring the delivery of quality healthcare services and maintaining patient safety within healthcare facilities. In Nigeria, like many other countries, the adoption of records management software has become increasingly important in modernizing healthcare information systems and streamlining administrative processes. General Hospitals in Zamfara State, Nigeria, are no exception, as they strive to enhance their capacity to handle patient medical records effectively.

However, the successful implementation and utilization of records management software rely heavily on the skills and proficiency of healthcare personnel responsible for managing medical records. These personnel, often referred to as records officers or health information management professionals, play a critical role in capturing, organizing, and maintaining accurate patient information using electronic record management systems. Their proficiency in utilizing records management software directly impacts the efficiency, accuracy, and accessibility of patient medical records within General Hospitals.

Information and Communication Technology, (ICT) Skills are worthy asset that every record administrator must have if they desire to be effective and efficient in discharging their responsibilities. ICT skills are of great demand and significance in effective and efficient management of information resources. Information

Management professionals are the custodians of patient clinical information (medical records) and are experts in the field of medical information management. Their professional duties include filing, retrieving, coding and indexing of diseases and surgical procedures, classifying, statistical analysis and interpretation of patient data. As a custodians of patients' medical records, they also work to ensure that confidential patient information is secure and released only according to strict governmental laws (Weimar, 2009).

Acting as the institution's informational hub, the Records officers department staff work closely with doctors, insurance providers and patients, this has led to additional software management skills requirement to perform these functions(Sani, and Alkali, 2017).

A number of technology skills are projected as being essential for records managers in the contemporary age. The competency in these skills is necessary for the continued existence of the information managers in this technological age. These skills are as follows: Information Management Technology Skills, Data Management Skills, Graphic Design Skills, Social Media Skills, Computer software skills, Typing and Editing Skills and Word Processing Skills.

Information management technology skills have become increasingly important in today's digital landscape (Nuroh et al., 2022). These skills encompass a range of abilities that enable individuals to effectively navigate and utilize information in various forms, such as digital media, databases, and online platforms (Armakolas et al., 2018). In the twenty-first century's digitally and globally interconnected world, information management technology skills, also known as digital literacy skills, are crucial for individuals to thrive and succeed (Zelenski and Eisenmann, 2016). Digital literacy skills encompass a wide range of abilities, including information literacy, media literacy, and ICT literacy (Letigio and Balijon, 2022).

One key aspect of information management technology skills is information literacy. Information literacy is identifying, locating, evaluating, and effectively using information (Indriyani et al., 2021). This includes being able to critically analyse information sources, determine their credibility and relevance, and apply the knowledge appropriately to a given task or problem (Yanuarti & Fadila, 2022).

Media literacy is another essential component of information management technology skills. Media literacy refers to the ability to critically analyses and evaluates media messages and understands how media influences our perceptions, beliefs, and behaviours' (Gasa et al., 2021). Individuals with media literacy skills are able to navigate through the vast amount of information and media content available today, discerning between reliable sources and misinformation (Krejčíand Siebert, 2023). Furthermore, ICT literacy is a fundamental aspect of information management technology skills.

The development of technological skills in operating machines and software through training is necessary for individuals to be successful in the digital age job market. Furthermore, computer software skills are not only important for job seekers but also for academic professionals. Academics are increasingly required to learn new computing skills, including computer software application skills, in order to interact with students in diverse learning spaces effectively. They are also utilizing digital content and teaching platforms to deliver online education. In addition, computer software skills are also vital for students and individuals in their educational pursuits. They need these skills to complete assignments, conduct research, and collaborate with others in a digital learning environment. In today's competitive workplace, computer literacy is essential (Alqaidoom et al., 2020). It encompasses a wide range of knowledge, including how to use word processing, spreadsheets, presentations, and database software. Moreover, computer literacy extends to the internet and online activities, as well as the ability to adapt to and learn new software applications.

Computer software skills have become a fundamental requirement in the modern workforce. Individuals who possess these skills are more likely to find jobs sooner and earn higher incomes compared to those with lower levels of proficiency. This is due to the fact that many jobs now require the use of computer software for tasks such as data analysis, project management, and document creation. Furthermore, the automation of certain tasks in the workforce has led to a shift in job requirements. Jobs that involve specialized skills are being replaced by computing technology, while manual labour jobs that do not require special skills are still in demand (Januariyansah et al., 2022). Therefore, individuals who can demonstrate proficiency in computer software skills have a competitive advantage in the job market. Employers value candidates who are proficient in computer software skills because they can contribute to increased productivity and efficiency in the workplace. Additionally, computer software skills are essential in the field of academia. Academics

rely on computer software skills to create and share digital content, manage student records, and utilize online teaching platforms (Mamun et al., 2015).

Typing and editing is the most important and powerful topics of MS Word. The more comfortable you feel moving around within a document, the more you will be able to concentrate on the contents of the document itself. This can be accomplished with the help of navigational techniques (moving insertion points, scrolling) (Juárez-Ramírez et al., 2022). General typing skills includes use of both hands for typing – this will make you faster. When typing capital letters at the start of a word, always use the shift keys. Never use caps lock for a single capital letter. Only use one space between words. Leave one space after a full stop or comma before your next word. If you change the font, make sure it's easy to read. When filling in forms on the internet (logging in, filling out info, etc.) use the Tab key to jump between input boxes – it's quicker than changing to your mouse etc. (Alqaidoom et al., 2020).

Editing is part of the redrafting process and entails checking the tone, structure and content of a text to ensure that it has a logical and coherent flow and expresses ideas clearly and in an academic manner. The editing skills includes the ability to check the content of a text and make sure that all information contained within the assignment directly relevant to the question and are content of the text within the word count, another thing is the expression of the content of a text; Are the introduction and conclusion both suitable? I.e., does the introduction provide an overview of your intentions within your assignment and does the conclusion draw together the main points you have made, does each paragraph express one main point or idea and successfully link to the next paragraph so there is a logical train of thought running throughout the assignment, are sentences easy to follow or too long and wordy (Mamun et al., 2015).

Despite the importance of records management software in healthcare settings, there is limited research focusing specifically on the assessment of software proficiency among healthcare personnel in handling patients' medical records, particularly within the context of General Hospitals in Zamfara State, Nigeria. Understanding the current level of proficiency, challenges faced, and training needs of healthcare personnel in utilizing records management software is crucial for optimizing healthcare information systems and improving patient record management practices.

Therefore, this study seeks to address this gap by conducting an assessment of records management software among healthcare personnel in handling patients' medical records within General Hospitals in Zamfara State, Nigeria. By evaluating the skills and proficiency levels of records officers in utilizing records management software, this research aims to provide valuable insights into the current state of healthcare information management practices in the region. Ultimately, the findings of this study can inform strategies for enhancing software proficiency, addressing training needs, and optimizing patient record management processes within General Hospitals in Zamfara State, Nigeria.

Statement of the Problem

Efficient management of patients' medical records is paramount for providing quality healthcare services and ensuring patient safety within general hospitals. In Zamfara State, Nigeria, where healthcare systems may face challenges related to resource allocation and infrastructure, the utilization of records management software plays a crucial role in streamlining administrative processes and maintaining accurate patient records. However, the extent to which healthcare personnel possess the necessary skills and proficiency in utilizing records management software for handling medical records remains unclear. Understanding the proficiency levels of healthcare personnel in this regard is essential for optimizing healthcare delivery and promoting effective information management practices within general hospitals in Zamfara State.

Despite the potential benefits of records management software in improving the efficiency and accuracy of medical record-keeping, healthcare personnel in general hospitals in Zamfara State may encounter various challenges related to software utilization. These challenges may include limited access to training and resources, inadequate technical support, and resistance to technological adoption. As a result, healthcare personnel may lack the requisite skills and proficiency to effectively navigate and utilize records management software, leading to inefficiencies in data management, increased risk of errors, and compromised patient care. Addressing these challenges requires a comprehensive understanding of the current proficiency levels among healthcare personnel in handling medical records using records management software.

The assessment of records management software proficiency among healthcare personnel in general hospitals in Zamfara State holds significant implications for healthcare delivery and patient outcomes. By identifying the specific areas of skill deficiency and training needs, this study aims to inform targeted interventions and capacity-building initiatives aimed at enhancing healthcare personnel's proficiency in utilizing records management software. Improving software proficiency among healthcare personnel can lead to streamlined administrative processes, improved data accuracy, and better coordination of care, ultimately contributing to enhanced patient safety and quality of care within general hospitals in Zamfara State. Furthermore, findings from this study can inform policy decisions and resource allocation strategies aimed at optimizing the utilization of records management software and promoting a culture of effective information management within the healthcare system.

Objective of the Study
The following is the objective of this study:
1. To find out the Records management software skills officers possessed for managing patients' medical records in General Hospitals, Zamfara State, Nigeria

METHODOLOGY
The quantitative research methodology was adopted for this study. The cross-sectional survey research design was used for this study. The target population for this study comprised all the one hundred and ten (110) records officers in General Hospitals, Zamfara State, Nigeria. The sample size of the population under study covered all the population of the study area from the ten (10) accessible general hospitals in Zamfara State, Nigeria. Self-developed semi structured Questionnaire was used as the instrument for data collection. The data collected was presented and analysed using descriptive statistics in order to obtain the relevant answers to the research questions. Frequency distribution, percentages, mean and standard deviation were used to analyse the data collected. This enabled the researcher present a consistent and understandable interpretation of the data collected. The Statistical Package for Social Sciences (SPSS) Version 23was used to analyse.

RESULT
This section presented the data collected, analysed and provided interpretations of the analysed data. This section presented the Record Management Systems' Skills possessed by record officers in General Hospitals of Zamfara State.

Table on Record Management Systems' Skills possessed by record officers

S/N	Records Management Software Skills	Frequency	Percentage (%)
1.	Word Processing Skills	89	19.5

2.	Graphic Design Skills	26	5.7
3.	Data Management Skills	32	7.0
4.	Social Media Skills	73	16.0
5.	Computer software skills	17	3.7
6.	Information Management Technology Skills	32	7.0
7.	Database maintenance skills	12	2.6
8.	Software installation skills	2	0.4
9.	Troubleshooting skills	2	0.4
10	Internet skills	81	17.8
11	Search and retrieval skills	38	8.3
12	Networking skills	52	11.4
		456	**100**

Source: Field survey, 2023

Table present the Record Management Systems' Skills possessed by record officers for managing patients' medical records in General Hospitals of Zamfara State, Nigeria and the Table revealed that work processing skills is Record Management Systems' Skill with the highest frequency and percentage of 89(94.7%), followed by Internet skills with 81(86.2%), then social media skills with 73(77.7%), networking skills with 52(55.3%), search and retrieval skills with 38(40.4%), data management skills and information management technology skills with 32(34.0%) each, followed by graphic design skills with 26(27.7%), computer software skills with 17(18.1%), then database maintenance skills with 12(12.8%), lastly followed by software installation skills and troubleshooting skills with 2(2.1%) each.

This revealed that the record officers of General Hospitals of Zamfara State, Nigeria possessed word processing skills majorly for the operations of record management system because it recorded the highest frequency and percentage, while software installation skills and troubleshooting skills have the least frequency and percentage and so are considered as less popular skills possessed by record officers of General Hospitals of Zamfara State, Nigeria.

The prevalence of word processing skills among record officers indicates that they possess a strong foundation in basic computer literacy and document management, which are integral for managing textual information within record management systems. However, the lower frequency of software installation and troubleshooting skills suggests a potential gap in technical expertise related to installing software components or resolving technical issues within record management systems. This could stem from a lack of specific training or exposure to these areas, leading to limited proficiency in performing tasks beyond basic word processing functionalities.

Addressing this discrepancy might require targeted training programs or educational interventions focused on enhancing software installation and troubleshooting skills among record officers. Such initiatives could potentially improve their technical capabilities, allowing for better utilization and maintenance of record management systems in General Hospitals of Zamfara State, Nigeria.

This finding disagreed with that of Babayi, Abba and Ibrahim (2021), who found out that Internet skills are the most possessed skills by record officers in the record units of Nigerian Hospitals. This implies that, even if the patients' record management software is provided the record officers will not be able to used it because majority lack installation and troubleshooting skills.

Conclusion

This study has provided valuable insights into the assessment of records management software among healthcare personnel in handling patients' medical records within General Hospitals in Zamfara State, Nigeria. The findings revealed varying levels of proficiency among healthcare personnel in different records management software skills. While word processing skills emerged as the most prevalent, with a significant percentage of respondents possessing proficiency in this area, skills such as software installation and troubleshooting were found to be less prevalent. This suggests a potential gap in technical expertise required for installing software components and resolving technical issues within record management systems.

Moving forward, it is essential for healthcare institutions in Zamfara State to prioritize training and capacity-building initiatives aimed at enhancing records management software proficiency among healthcare personnel. Collaborative efforts involving healthcare administrators, professional associations, and educational institutions can play a pivotal role in developing and implementing tailored training programs that address the specific needs of records officers in Zamfara State. By investing in the development of software skills and fostering a culture of continuous learning and improvement, healthcare facilities can optimize their information management practices and ultimately improve patient care outcomes.

Recommendations

The following recommendation were provided:

 1   Develop Targeted Training Programs: Healthcare institutions should develop and implement targeted training programs aimed at enhancing records management software proficiency among healthcare personnel. These programs should focus on building skills in areas identified as lacking, such as software installation and troubleshooting. Training sessions can be conducted regularly and tailored to the specific needs and skill levels of records officers.

References

Babayi, B. U., Abba, M. J., Ibrahim, A. M. (2021). Impact of Information and Communication Technology (ICT) on Management, Storage and Retrieval of Patient Records in Federal Medical Centres (FMCs) in Nigeria. International Journal of Research in Library Science (IJRLS), 7(3)(October), 199–212.

Bashir, A. M. (2017). Use of information technology in health records management (a case study of university of ilorin teaching hospital, kwara state.). Lead City University, Ibadan oyo state.

Caldeira, M., Serrano, A., Quaresma, R., Pedron, C., and Romão, M. (2012). Information and communication technology adoption for business benefits: A case analysis of an integrated paperless system. International Journal of Information Management, 32(2), 196–202.

David, W. (2020). Medical Imaging Techniques: Types & Uses. Chapter 7, Lesson 7", GACE Prep First Lesson GACE Science (524): Practice & Study Guide [online] Available at https://study.com/academy/lesson/medical-imagingtechniques-types-uses.html

Gasa, F M., Wasita, A., Hartanto, B H., Gunawan, A B., Citra, J A. (2021, January 1). Media Literacy in Preventing the Spread of Radicalism in the Millennial Generation. https://scite.ai/reports/10.2991/assehr.k.211020.066

Grant, D., How to Brief Graphic Designers. Goprint Queensland Government (2008), 10 March 2014, http://www.hpw.qld.gov.au/sitecollectiondocuments/goprintbriefingdesigners.pdf

Ilana W. (2018), Common Problems Faced by Record Management. Retrieved January 2019, from:http://www.ehow.com/list_7426188_common-problems-faced-record management.html

Indriyani, M., Safii, M., Pratiwi, Y. (2021). Information literacy level of state university of malang students participant in national students scientific week 2018-2019.

Januariyansah, S., Putra, R., Erni, E., Iskandar, H., Gunawan, S. (2022). The Urgency of Employability Skills for Vocational Graduates in the Job Market. https://scite.ai/reports/10.4108/eai.11-10-2022.2325390

Jha, A. K., DesRoches, C. M., Campbell, E. G., Donelan, K. (2009). Use of electronic health records in U.S. hospitals. New England Journal of Medicine. 360(16), 1628-1638.

Juárez-Ramírez, R., Navarro, C X., Licea, G., Jiménez, S., Tapia-Ibarra, V., Guerra-García, C., Perez-Gonzalez, H G. (2022). How COVID-19 Pandemic affects Software Developers' Wellbeing, and the Necessity to strengthen Soft Skills.

Laing, S., and Masood Masoodian, M. (2014). A Study of the Role of Visual Information in Supporting Ideation in Graphic Design, 10 December 2014, http://hdl.handle.net/10.1002/asi.23231

Letigio, C, J. S., and Balijon, M. D. P. (2022, December 1). Digital Literacy Readiness of Graduates of Philippine Higher Education Institution.

Malbrough, J. E. (2014). Design Praxis: Utilizing Conventional Graphic Design Principles to Understand Relationships between Graphic Design and Sustainability. MFA Thesis. Savannah College of Art and Design, USA

McDonnell, C., et al. (2010). "Electronic Health Record Usability: Vendor Practices and Perspectives. AHRQ Publication No. 09(10)-0091-3-EF. Rockville, MD: Agency for Healthcare Research and Quality. [Accessed: 2017 May 26]. Available from: https://www.amia.org/sites/amia.org/files/EHRVendorPractices-Perspectives.pdf."

Miller, K., Miller, M. Moran, M. & Dai, B. (2018). Data management life cycle. Texas A&M Transportation Institute, PRC 17-84 F

Moukénet, A., de Cola, M. A., Ward, C., Beakgoubé, H., Baker, K., Donovan, L., Laoukolé, J., and Richardson, S. (2021). Health management information system (HMIS) data quality and associated factors in Massaguet district, Chad. BMC Medical Informatics and Decision Making, 21(1). https://doi.org/10.1186/s12911-021-01684-7

North, G., County, K., Odiwuor, C. W., Onyuka, J. H. O., Muhoho, F., Muchiri, J., Nginya, C. (2015). Utilization of Information Communication Technology (ICT) Among Health Care Utilization of Information Communication Technology (ICT) Among Health Care Providers in GatunduNorth District of Kiambu County, Kenya. (December 2018).

Nuroh, E. Z., Kusumawardana, M. D., Destiana, E. (2022). Developing Digital Literacy Skill for Initial Teacher Education through Digital Storytelling. https://scite.ai/reports/10.18502/kss.v7i10.11250

Nwosu-Ogochukwu, F., Chilaka, A. E., Chiamogu, C. (2021). Information and Communication Technology Word processing skills" In-Service Training for Computer Teachers In Secondary Schools in Nsukka Education Zone. IOSR Journal of Mobile Computing & Application (IOSR-JMCA), 8 (2), pp. 01-06.

knowledge and utilization as determinants of job performance of Health Information Managers in health institutions in South-East Nigeria. International Journal of Library and Information Science, 13(December), 21–33.

Omary, Z., Lupiana, D., Mtenzi, F., Wu, B. (2010). Analysis of the Challenges Affecting E-healthcare Adoption in Developing Countries: A Case of Tanzania Analysis of the Challenges Affecting E-healthcare Adoption in Developing Countries: A Case of Tanzania. International Journal of Information Studies, 2(1), 38–50.

Ouma, S., and Herselman, M. E. (2018). E-health in rural areas: Case of developing countries. International Journal of Biological and Life Sciences, 4(4), 194-200. Retrieved from http://www.unapcict.org/ecohub /resources/e-health-in-rural-areas-case-of developing countries-1

Owan, V.J. &Bassey, B. A. (2018). Comparative study of manual and computerized software techniques of data management and analysis in educational research. International Journal of Innovation in Educational Management (IJIEM), 2(1), 35 – 46.

Palojoki, S., Pajunen, T., Saranto, K., Lehtonen, L. (2016). Electronic health record related safety concerns: A cross-sectional survey of electronic health record users. JMIR Medical Informatics, 4(2), e13. https://doi.org/10.2196/medinform.5238.

Seid, M. A., Bayou, N. B., Ayele, F. Y., and Zerga, A. A. (2021). Utilisation of routine health information from health management information system and associated factors among health workers at health

centers in oromia special zone, Ethiopia: A multilevel analysis. Risk Management and Healthcare Policy, 14. https://doi.org/10.2147/RMHP.S285604

Shachak, A., and Reis, S. (2009). The impact of electronic medical records on patient-doctor communication during consultation: A narrative literature review. Journal of Evaluation in Clinical Practice, 15, 641–649. doi:10.1111/j.1365-2753.2008. 01065x

Soler, A, S., Ort, M. &Steckel, J. (2016). An Introduction to Data Management. BEFmate, GFBio project. Unpublished preprint

Stolar, A. (2004). Contexts of Graphic Design in Advanced New Media, 10 May 2013, https://www.fa.stuba.sk/docs/casopisy/ALFA4-2004.pdf

Yamusa, A.A. (2021). Assessment of Filing and Storage of Patients' Records in Ahmadu Bello University Teaching Hospital, Zaria, Nigeria, Department of Library and Information Science, Ahmadu Bello University, Zaria, Nigeria.

Yeo, G. (2015). Managing Hospital Records (1st ed.; M. Roper; & L. Millar, Eds.). United Kingdom: Canada Judith Etherton.

Zelenski, Y., and Eisenmann, D. (2016). Data management architecture, University Hospital Haiti. https://scite.ai/reports/10.3402/gha.v9.32195

Zhao, Y., Liu, L., Qi, Y., Lou, F., Zhang, J., and Ma, W. (2020). Evaluation and design of public health information management system for primary health care units based on medical and health information. Journal of Infection and Public Health, 13(4). https://doi.org/10.1016/j.jiph.2019.11.004