

BENEFITS AND CHALLENGES OF USING ELECTRONIC HEALTH RECORDS IN NIGERIAN GENERAL HOSPITALS

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Abstract

Purpose: The purpose of the study was to identify the benefits obtained from the use of electronic health records on healthcare delivery by physicians in Nigerian hospitals and the obstacles connected with the use of electronic health records on healthcare delivery by physicians in Nigerian hospitals.

Method: The data were collected from 315 doctors and nurses at general hospitals in Abraka (25), Obiaruku (95), and Eku (195). 250 physicians (Registrars-Consultants) were chosen at random from all departments. The survey used a validated questionnaire. On a 4-point Likert scale, strongly agree, agree, disagree, and strongly disagree.

Findings: Findings revealed that respondents have a strong understanding of ICTS abilities related to the usage of EHRS in hospitals, which simplifies their job and encourages patients to visit hospitals for their health concerns. The study also finds that poor ICT infrastructure is preventing EHR adoption in Nigerian general hospitals.

Implication: Hospitals need to provide valuable services that deliver medical information to patients and the general public. Physicians and nurses should seek out opportunities to develop their self-awareness and leadership abilities.

Originality: The researcher proposed that Nigerian general hospitals should enhance their technology infrastructure to facilitate the spread and implementation of EHR.

Keywords: Electronic Health Records, Healthcare, General Hospital, ICT Infrastructure, Nigeria, Implementation, Prospects, Challenges

Introduction

A country's healthcare delivery system is dependent, among other things, on its hospitals' ability to provide high-quality, low-cost care to its population. As a result, hospitals play a critical part in a country's healthcare delivery system (Aanestad, Grisot, Hanseth & Vassilakopoulou, 2017). Health records are necessary for good healthcare, and high-quality healthcare data is needed for the planning, development, and maintenance of optimal care (Adebola, 2013). The quantity and quality of the information provided to healthcare providers in patient care have an impact on the patient's outcome and care continuity. Furthermore, the amount of medical data required for clinical decision-making continues to rise, particularly in developing countries. Medical information is still poorly organized and not accessible, which frequently leads to erroneous decisions and medical blunders (Adeyemo, 2005).

In the late 1980s, a collaborative research effort was launched between the Computing Centre of the University of Kuopio in Finland, Obafemi Awolowo University, and the Obafemi Awolowo University Teaching Hospital (OAUTHC) in Nigeria (Bates, Ebell, Gotlieb, Zapp & Mullins,

2003). The cooperative initiative resulted in a very basic hospital information system based on the Veterans Administration's (VA) Admission Discharge Transfer, which was used at OAUTHC in 1991 on a stand-alone PC (Borthne, 2007).

Late in the 1990s, The Finnish/Nigerian research team decided to improve their basic hospital information system to develop a more complete system that could be utilized in all Nigerian Teaching Hospitals and medical facilities. By 2001, the goal was to develop health informatics divisions in all Teaching Hospitals in Nigeria that could use standard software. Unfortunately, the technology was not assessed at OAUTHC, and just five teaching hospitals and medical facilities currently use it. The high cost of commercial software is the main reason for its restricted use (Gater, 2010). In 2003, the State Hospital Network (SONET), a non-profit software suite, was released. This was created in Nigeria to allow hospital resources to be shared across a computer network. The program was created with two goals in mind: to reduce the cost of running public hospitals and to improve patient care (Coiera, 2003).

Another system was built in 2004 at Nigeria's Obafemi Awolowo University's Department of Computer Science and Engineering. The system was created to facilitate patient referrals from one hospital to another by allowing case files, referral notes, and medical examination results to be shared over a computer network instead of being moved manually from one hospital to another (Cooper, 2004).

Nigeria is seeing increased advocacy and a rise in the number of people who want health information and healthcare operations to be computerized. On the other hand, the government is developing plans and strategies for health information technology adoption and implementation (Adebayo, Labiran & Emerenini, 2016). The Nigerian government produced a 5-year Strategic Plan on Health, with the health information system holding a strategic role, to improve the use of ICT in healthcare delivery in the country. The goal is for all of the Federation's governments to develop an effective National Health Management Information System (NHMIS) to be used as a management tool to improve healthcare and make more informed decisions at all levels (Akor, 2016). The government recognized the need for a unified health information management system based on Health Information Technology (HIT) to achieve the plan's objectives. On this foundation, the Federal Ministry of Health organized the first National Conference on Health Information Technology between November 2 and 4, 2011.

The main goal of the conference was to create a single, harmonized health data management system, with specific objectives including compiling a list of health information system applications in use across the country, reviewing the interoperability of existing systems, and reviewing the Health Information Technology components of the country's health strategies and to provide solutions for establishing interoperability standards and increasing capacity. Following that, in August 2013, the National Council on Health approved the deployment of EHRs in all 36 states of the union, including the Federal Capital Territory (Adeloye, David, Olaogun, Auta, Adesokan, Gadanya, Opele, Owagbemi & Iseolorunkanmi, 2017). To achieve Universal Health Coverage for all citizens by 2020 and leverage the vast potential of ICT, the FMoH intends to scale up ICT infrastructure in all health facilities across the country to ensure they are in step with Health ICT and health system priorities through her National Health ICT Strategic Framework 2015-2020 (Appari, Johnson & Anthony, 2015).

Record keeping in healthcare delivery

The issue of record-keeping in healthcare service delivery is critical, as evidenced by the recent evolution of hospital record management as a core discipline in the field of hospital management Ajala, Awokola & Emuoyibofarhe (2015). To be useful, the record system must make it easy to access and display required data, analyze it, and share it with colleagues and hospital users who are not directly involved in patient care (Cochrane, 2009). In any healthcare delivery facility, there are two major methods for keeping patient medical records: paper-based record keeping and electronic health record (EHR) systems.

Paper-based record keeping in healthcare delivery

The traditional paper-based medical record arose in the nineteenth century as a highly personalized "lab notebook" in which clinicians could record their observations and plans to be reminded of pertinent details when the same patient visit again. The demands for information exchange among healthcare providers, as well as the financial and legal complexities of today's healthcare environment, have overwhelmed the traditional paper-based approach to clinical documentation. The complexities have also overwhelmed the growing rate of biomedical knowledge, the growing chronic care needs of an aging population, and medical errors associated with handwritten notes (Ama, 2014). Other disadvantages include a lack of physical space to store the cards in the case of a large number of patients, individual handwriting inconsistency, as well as vulnerability to termite attacks. Patient information retrieval will take longer, and patients may have access to confidential information if they must transport paper-based records from one hospital unit to another (Ajala et al). Furthermore, some patients are registered with multiple healthcare providers, and their records are never shared with other physicians, laboratories, or hospitals. As a result, fragmentation of information occurs, causing disruption. Delays and errors impede patient care (Barlow, Johnson & Steck, 2004). Patients frequently lack access to reliable information that could assist them in meeting their needs. According to studies, patients who understand their condition and participate in decision-making with their doctors are better able to deal with their illness or disease (Jha, DesRoches, Campbell, Donelan, Rao, Ferris, Shields, Rosenbaum & Blumenthal, 2009).

Electronic health records (EHR) in healthcare delivery

Electronic Medical Record (EMR), Electronic Patient Record (EPR), Computerized Medical Record (CTR), Computer-Based Patient Record (CPR), and Electronic Health Record are all abbreviations for systems that handle patient data (EHR). The definitions differ only slightly depending on the defining country of origin, health sector, professional discipline, and time (Omoluwabi, 2014). In this study, the acronym EHR is preferred. The electronic health record has been identified as a major motivator for modern healthcare organizational productivity, efficiency, and performance effectiveness (Coiera, 2003). The EHR is a long-term health record that includes entries made by healthcare practitioners in various locations where care is provided. It is primarily used for setting goals and planning patient care, as well as documenting and evaluating care outcomes. It contains information about the needs of the patient during the episode of care provided by various healthcare professionals (Weatley, 2013).

The Hybrid Health Record System

The transition from paper to electronic health records presents numerous challenges, resulting in a transitional phase in which a "Hybrid" medical record is created. These difficulties include workflows becoming more complicated, increasing the system's cost, and billings being affected due to multiple locations of information (Jones, Koppel, Ridgely, Wu, Palen & Harrison, 2011). However, the complete transition to the EHR could take many years longer because healthcare providers continue to rely heavily on paper documents as a common medium for exchange between providers along the patient care continuum (Bell & Thornton, 2011).

Statement of the Problem

Among other services, general hospitals have an accident and emergency unit and a diagnosis unit [which includes X-rays, scan machines, and other pathology services] (Bowker et al, 2010). According to the Medical and Dental Council of Nigeria, any general hospital should have at least three doctors who can provide medical, surgical, pediatric, and, obstetric care. Furthermore, to fulfill its position as a second-tier health institution, the general hospital combines primary healthcare facilities into its own (Jha et al, 2009). A General Hospital must provide basic surgical treatments as well as beds and bedding for at least 30 patients to be designated as such. State governments frequently control general hospitals. With many hospital Healthcare facilities (General Hospitals) in Nigeria lacking electronic health records, healthcare delivery can be hampered by the current use of temporary cards. The increased number of patients seeking healthcare services necessitates quick and efficient record-keeping. This is one of the purposes of the investigation into the benefits and barriers to EHR implementation in Nigerian hospital Healthcare facilities.

Research Questions

1. How much knowledge of ICT skills do the healthcare professionals in a Nigerian hospital have?
2. What are the benefits of electronic health records on healthcare delivery by physicians in Nigerian hospitals?
3. What are the challenges militating against the use of electronic health records on healthcare delivery by physicians in Nigerian hospitals?

Obectives of the Study

The objectives of the study are:

1. To ascertain the knowledge of ICT skills that healthcare professionals in Nigerian healthcare hospitals have.
2. To ascertain the benefits derived from the use of electronic health records on healthcare delivery by physicians in Nigerian hospitals.
3. To identify the challenges associated with the use of electronic health records on healthcare delivery by physicians in Nigerian hospitals.

Literature Review

Healthcare is a type of service or care aimed at improving the health of individuals and populations by reducing illness and death (Adefolaju, 2014). It deals with the prevention, diagnosis, and handling of human ailments, diseases, wounds, and other physical and mental damages (Adebayo, Labiran, & Emerenini, 2016). Every healthcare system seeks to fulfill the health needs of persons in a certain geographic region by combining healthcare, social, and other resources. Lynn, Mckethan, and Jha (2017) define quality healthcare delivery as offering the appropriate care to the appropriate individual at the appropriate time. It entails receiving the greatest possible treatment for one's ailment or condition, including avoiding blunders.

Information and communication technologies (ICTs) are technologies that help gather, store, process, and share information electronically. Examples of ICTs are electronic medical records, medical journals, and databases on the Internet. Videoconferencing for doctor appointments, or systems on the Internet to give feedback to doctors so they can improve the care they provide are other examples. ICTs have the potential to improve health care and the health of patients (Akindele & Soyemi, 2021).

Due to the EHR's distinct advantages over paper records, it has gained widespread acceptance in developed countries (Goldzweig, Orshansky, Paige, Towfigh, Haggstrom, Make-Lye, Beroes, & Shekelle., 2013). Remote access to medical records is now possible because it is faster and easier the retrieval of records, avenues for flagging abnormal results, and elimination of handwritten prescriptions, which reduces the occurrence of prescription errors (Silow-Carroll, Edwards, and Rodin 2012), Zlabek, Wickus and Mathiason (2011); Aaronson et al. (2001). EHRs have the potential to improve care quality, especially when combined with embedded features such as CPOE and CDSS (Koehler, Vujovic & McMenamin, 2013).

EHR has been linked to improved outcomes in hospitals, including better infection control (Akor, 2016), improved prescribing practices (Institute of Medicine. 2006), and improved disease management (Coiera, 2003). Similarly, by utilizing computerized prescription entry, predicting drug interactions and displaying a warning for health-care providers, assisting clinicians in reconciling patient medications, and maintaining a detailed and legible medical record, the EHR can specifically result in improved patient safety (Akindele & Soyemi, 2021). After adverse events occur in hospitals and outpatient settings, the EHR can assist clinicians in determining the root causes (Bates, et al. 2003). Furthermore, EHR allows providers to quickly identify and notify individual patients about significant changes in drug therapy (Aaronson, Murphy-Cullen, Chop & Frey, 2001). Furthermore, the EHR alert system ensures that patients receive proper dosage and drug administration (Aanestad et al, 2017). According to Park, Howie-Esquivel, and colleagues (2015), the EHR has the potential to improve patient adherence to prescribed drug therapy.

The use of electronic health records (EHR) enhances the possibility of increased productivity and efficiency. EHRs, for example, aid in the automation of tasks such as extracting data from charts and filling out specialized datasheets. By boosting physicians' workflow efficiency and meeting the information demands of practicing clinicians, EHR usage can improve medical staff relations (Barlow, 2004). The scheduling systems can help hospitals and clinics run more efficiently and give patients better timely care (Alpert 2016). Institute of Medicine (2006) found that EHR improved daily work and improved patient care: Medication turnaround times decreased from 5:28 to 1:51 hours; radiological procedure completion times decreased from 7:37 to 4:21 hours, and lab results reporting times decreased from 31:3 to 23:4 minutes. In the same study, by reducing the

time it took to deliver paper versions, transcribing errors for orders decreased, length of hospital stay decreased, and test result transmit time decreased.

The EHR allows a patient to be visited by multiple doctors sequentially, with all clinicians having access to the most up-to-date information. It provides the healthcare provider with immediate access to the evaluations of other clinicians as well as diagnostic tests (Adegboyega, 2018). Clinicians can more easily coordinate and track patient care across practices and facilities with the help of an EHR. Clinicians from many specializations and disciplines work on patient outcomes as a team to improve overall care (Balestra, 2017, Alpert 2016), specifically for chronic care management (Saleem & Herout, 2018). The system also allows for the coordination and scheduling of a patient's needs - office visits, testing, surgery, and hospital stays - to be done in a single visit rather than many appointments, which saves time (Porat, Blay & Barak, 2018).

The EHR was directly responsible for the first-year savings of nearly \$1 million. The savings came from lower transcribing costs, improved coding, and the removal of the need to create new patient documents, due to no increase in chartroom full-time employees while patient volume had doubled, there was a reduction in space requirements and cost avoidance (Barlow et al, 2004).

Electronically accessible data for EHR systems will enable quantitative analysis and the establishment of evidence-based best practices much easier (Atrash & Richard, 2012). Data for a study, for example, can frequently be pulled directly from the EHR, thus making much of what is required for research data collection simply a by-product of routine clinical record keeping. Data from EHRs could be identified and integrated into larger data repositories where research can be conducted to improve patient safety, medical knowledge, and public health (Jamoom, Patel Kings & Furukawa, 2014).

The obstacles that industrialized countries have in implementing EHRs are not the same in developing countries (Timothy, Irinoye, Yunusa, Dalhatu, and Ahmed, 2014). In Sub-Saharan Africa, EHR access has improved over the previous decade, yet there are still 23 barriers to overcome (Tremblay, Richer & Aubry, 2013). While some private hospitals in Nigeria have fully functional EHRs (Akor & John-Mensah 2016), government institutions appear to be lagging in terms of implementing EHRs and other critical ICTs to improve healthcare delivery. (Appari, Johnson & Anthony 2015). Akor and John-Mensah (2016) noted that government policy and strategy, a lack of ICT infrastructure, a lack of basic ICT skills/knowledge, poor internet connectivity, financial issues/constraints, and an insufficient electric power supply have all been identified as major barriers to the successful implementation of EHR systems in developing countries such as Nigeria.

The current infrastructure in a hospital or healthcare organization determines the ease with which an EHR can be implemented (Ward, Zlabek, Wickus & Mathiason, 2011). In a previous study, inadequate ICT infrastructure was identified as one of the barriers to electronic health information implementation (Silow- Carroll, Edward & Rodin, 2012). Unlike wealthy countries, which have extensive healthcare facilities and abundant government funding, most developing countries have the opposite situation (Omoluwabi, 2014). As a result, inadequate access to computers and other ICT facilities continues to be a barrier to EHR adoption success (Borthne, 2007).

Government policies have been suggested as one of the primary impediments to the implementation of electronic patient records in Nigeria (Adefolaju, 2014). In 2000, the World Health Organization issued a bulletin stating that Nigeria needed a strong government policy on healthcare technologies to assist the implementation of e-health projects (Cochrane, 2009).

Through a series of national development plans and annual budgets, successive administrations have attempted to improve the health situation of Nigerians, although only moderate progress has been realized in the past (Adegboyega, 2018). Even the implementation of Nigeria's 2001 IT policy, it was stated, did not produce the intended results in the health sector (Bell & Thornton, 2011).

The current plan, known as the National Strategic Health Development Plan (NSHDP) 2010-2015, was developed through an extensive collaborative process involving all major stakeholders and actors, to deliver a shared results framework, to which everyone will be held accountable for meeting the goals and targets outlined in the results framework, creating public-private partnerships in data warehouse administration and database software acquisition systems implementation at all levels because of the necessity of monitoring in achieving these objectives, monitoring, and evaluation system was designed to offer accurate, reliable, and timely information on the NSHDP's progress as well as regular reporting on performance metrics (Adebola, 2013).

Any government that struggles to offer its citizens Uninterrupted Power Supply (UPS) will have a hard time deploying good ICT services like the EHR (Weatley, 2013). Adoption of hospital information systems requires an uninterrupted power supply and ensures that unplanned shutdowns do not occur, resulting in data loss or lasting system damage. In many parts of Sub-Saharan Africa, the electricity supply is intermittent or non-existent (Adeyemo, 2005). In Nigeria, for example, just a few cities and towns get consistent and reliable energy for ten hours per day. As a result of the frequent power outages, most internet facilities in Nigeria have experienced downtime and equipment damage (Cooper, 2004).

Timothy et al, (2014) opined that the purchase of necessary software and hardware, installation, training of hospital staff, and maintenance are all significant financial obligations that may dissuade governments and institutions from pursuing such programs. The initial cost of systems has fallen significantly as EHR technology has become more commonly employed over the previous decade. The cost of EHR adoption, installation, and ongoing maintenance is made even more expensive by the fact that many of the EHR's financial benefits aren't passed on to the provider, who must make the initial investment, but to third-party payers in the form of lower claims payment due to fewer errors and better efficiencies. This imbalance of incentives, along with high upfront costs, creates an impediment to EHR adoption and deployment, especially for smaller practices (Agbese & Ikonne, 2021).

Also, Tremblay, Richer, and Aubry (2013) believed that through good data management systems, picture archival systems, and communication systems, internet connectivity may revolutionize the flow of information in the health sector, and is especially vital for radiological information systems and teleradiology. In the previous ten years, internet access has greatly improved, and all African countries currently have direct internet connections Bukachi and Pakenham-Walsh (2007) argued that a high bandwidth is necessary for the transmission of huge images between institutions, Nigeria's low speed, and expensive Internet bandwidth would stymie EHR deployment, and in addition to accessing the EHR itself, particularly if it contains videos and photographs.

Training is an important part of any healthcare delivery system, but little data on the degree of training and use of technology among healthcare workers in underdeveloped nations is available (Institute of Medicine, 2006). While clinicians in developed countries are currently being taught using cutting-edge technologies such as 3D simulations, this is not the case in developing countries. Virtual reality and robots, on the other hand, are not well-known in poor countries. This

lack of sophisticated medical training tends to deepen the gap between practitioners on both sides of the divide, which may reflect in the efficiency and success of EHR deployment in poor nations (Iynn, Mckethan & Jha, 2017). Although medical professionals in Nigeria may be able to swiftly adjust to the EHR system due to their formal training and availability of personal computers and other devices, the same cannot be said for other support personnel who have had limited access to computers and other ICT facilities.

Research Methodology

The study was conducted using a survey research design. The three government hospitals in Abraka (25), Obiaruku (95), and Eku (195) are usually referred to as general hospitals. 315 physicians of various ranks were used, ranging from Registrar to Consultant. A stratified random selection procedure was used to select a sample of 250 physicians (Registrars-Consultants) from all departments. A validated questionnaire was utilized to obtain the data. Seventy-nine percent of respondents responded. The data analysis employed was mean statistics.

Table 1: Knowledge of ICT skills

Knowledge	Strongly Agree =4	Agree =3	Disagree =2	Strongly Disagree =1	Mean
Good knowledge of ICTS skill	25	185	35	15	2.96
No good knowledge of ICTS skill	0	38	187	25	2.20
Aggregate mean					2.58

Mean cut off point is = 2.50

The aggregate mean of 2.58 indicates that respondents had a strong understanding of ICTS skills that can be applied to electronic health records (EHRS) and high-quality healthcare delivery. This, the researcher believes, will facilitate the transfer from the paper-based system to an EHR. Additionally, respondents' ICT competency skills enable them to rapidly and effectively locate and utilize the information they require. Furthermore, the rapid advancement of knowledge, technology, and abilities necessitates coordination among professionals with complementary experience in modern healthcare.

Table 2: Benefits of EHR

Benefits	Strongly Agree =4	Agree = 3	Disagree =2	Strongly Disagree =1	Mean
Reduced length of stay Of patients in the hospital.	99	97	55	6	3.21

Reduced adverse drug effect on patients.	89	128	33	0	3.22
It can enhance service delivery by shortening patient waiting time.	99	116	28	7	3.23
Reduced medical records costs	230	20	0	0	3.92
Enhance confidentiality and security of patient data	32	28	189	1	2.36
Prevents loss of data.	218	32	0	0	3.87
Aggregate mean					3.30

Mean cut off point =2.50

The aggregate mean of 3.32 in Table 2 demonstrates that the majority of the benefits of electronic health records (EHRs) and quality healthcare delivery were widely acknowledged by respondents, except for enhancing the confidentiality and security of patient data, which had a mean of 2.36. This illustrates that there are several benefits associated with the usage of ERH, which may aid responders in performing their jobs and providing services more effectively.

Table 3: Challenges of EHR

Challenges	Strongly Agree =4	Agree =3	Disagree =2	Strongly Disagree =1	Mean
Inadequate ICT facilities	115	112	23	0	2.62
Poor internet connectivity	89	128	33	0	3.22
Financial constraints	98	67	45	40	2.89
Political Issues	117	113	2	8	3.28

Lack of computer skills	78	21	128	23	3.37
Inadequate ICT equipment	107	97	46	0	3.29
Power Outage	98	127	25	0	3.61
Lack of ICT infrastructure	182	65	3	0	3.71
Aggregate mean					3.25

Mean cut off point = 2.50

Table 3 shows that respondents gave high ratings to all of the items mentioned as problems. Lack of ICT infrastructure had a mean of 3.71, which was greater than the norm of 2.50. In addition, the average score for a lack of computer abilities was 3.37. In this situation, it is believed that the aforementioned issues have a deleterious effect on the use of electronic health records (EHRs) and the delivery of high-quality healthcare, and are likely to hinder the successful implementation of EHRs in general hospitals if not solved.

Discussion of Findings

The purpose of this study was to ascertain respondents' understanding of ICTS abilities concerning the use of EHRs in hospitals. The findings indicate that respondents have a strong understanding of ICTS abilities related to the usage of EHRs in hospitals, which simplifies their job and encourages patients to visit hospitals for their health concerns. The findings verify Terry et al.(2008) conclusion that physicians, nurses, and other healthcare professionals with extensive computer abilities would embrace the deployment of an EHR. Additionally, it was discovered that basic computer abilities have a beneficial effect on the EHR installation operation. (Akomolafe 2014; Biruk, Yilma, & colleagues 2014). This is because one of the elements affecting healthcare personnel's readiness for EHR deployment is their level of education. As a result, the researcher considers the respondents' computer skills to be a factor in the general hospital's adoption of EHR. The second research question examined the benefits of electronic health records. The aggregate mean of 3.32 in Table 2 indicates that the majority of the items cited as benefits of electronic health records (EHRs) and quality healthcare delivery were widely supported by respondents. This is consistent with Attah's (2017) findings that the benefits of adopting EHRs in the hospitals where they work are universally acknowledged, particularly the EHRs' capacity to improve access to patient data confidentiality and security, as well as service delivery. Additionally, Schiff, David, and Bates (2010) show that EHRs have the potential to reduce prescription errors by enhancing access to essential information, facilitating communication and care integration across providers and visits, and expediting recording and monitoring. Akor (2016) concludes that the use of information technology in healthcare administration, such as EHRs, has provided a mechanism for increasing the reliability of healthcare quality.

The third research question focuses on the implementation problems associated with EHR. As indicated in Table 3, insufficient ICT infrastructure is the primary impediment to EHR deployment

in general hospitals. The current ICT infrastructure in general hospitals is insufficient for establishing the EHR system. The findings corroborate Ademiluyi and Aluko-Arowolo (2009) that in Nigeria, medical service delivery and healthcare infrastructure allocation have historically favored the urban population (where the educated, wealthy, and government officials live) at the expense of rural residents. According to one respondent, his institution's secretary's office is the only one equipped with a computer. Adoption will be successful only with increased ICT infrastructure in general hospitals. Previously, it was suggested that a lack of ICT infrastructure constituted a barrier to EHR implementation (Omoluwabi, 2014).

Conclusion

Quality healthcare delivery is critical for guaranteeing adequate healthcare, which in turn benefits both individuals and the population's economic development and quality of life. However, achieving high-quality healthcare needs significant effort on the part of all stakeholders, most notably the government. Earlier research has established a link between the utilization of electronic health records and the provision of high-quality treatment. The current study's findings indicated that the adoption of electronic health records had substantial beneficial link with the delivery of high-quality healthcare. All respondents agreed that introducing EHRs at their hospitals will improve patient data access, confidentiality, and safety, as well as service delivery. Regardless of where in the country the General Hospitals are located, the issues they faced and the current efforts to address them varied, which reflected the administration of the institutions to some extent. The value of this study originates from its objective of focusing on the issues challenging the deployment of EHRs in General Hospitals in Nigeria, which seems to be the first study of its kind in the study area.

Recommendations

Based on the study findings, the following recommendations were made for enhancing access to health information and knowledge for medical professionals.

1. The ICT infrastructure should be enhanced.
2. ICT education and training are required for both vendors and users. Encouraging a culture of evidence-based treatment requires acquisition of ICT skills by medical workers.
3. ICT plans and policies should be made to maximize their potential; it must be used as a tool for health information access and dissemination. The policies must satisfy long-term user and organizational demands while remaining flexible and updated with new technology.

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