

# Health Information Managers' Attitude and Perception of the Transition from Traditional Paper-Based Records to Electronic Medical Records at Nnamdi Azikiwe University Teaching Hospital Nnewi, Anambra State, Nigeria

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**Abstract:** *The huge advantages of EMR systems, such as the removal of unnecessary paper-based operations, simple access to patient information, a reduction in medication errors, etc., are largely responsible for the positive outcomes in healthcare. Despite these significant advantages, major healthcare facilities still register and document patients using pen and paper or a manual approach combined with an electronic system. This research focuses on analyzing health information managers' attitudes and perceptions concerning the switch from manual to electronic medical records. 57 certified health information managers working at the Nnamdi Azikiwe University Teaching Hospital in Nnewi, Anambra State, participated in the descriptive survey study. Descriptive statistics were employed to assess the data, and the chi-square ( $\chi^2$ ) test was utilized to examine the relationship between the variables. The results showed that the respondents' attitudes and perceptions were overwhelmingly positive, which contributed to their complete acceptance of EMR. EMR was favored because it was simple to use and time-saving, which led to good work production. Lack of computer knowledge, the possibility of power outages, and poor network performance are all things that affect how information managers feel about using electronic medical records. EMR adoption has the ability to decrease patient wait times and boost patient satisfaction. As a result, medical records department employees need to become more computer literate in order to use computers easily and productively.*

**Keywords:** Electronic Medical Records, Health Information Managers, Computer, Healthcare, Health Information Management

## 1. Introduction

Paper documents are created, maintained, and stored daily from patient visits to healthcare facilities where they are treated by trained medical staff and technology. These documents were numerous and combined to make what is known as "medical records." Maintaining this medical record, which is a confidential communication between the care providers and the patient during diagnosis, treatment, and therapy, is the primary duty of the healthcare professional. The patient record's most significant database, which is made up of diverse data entered by healthcare professionals in either paper or electronic form, is its medical records (Oumer, Muhye, Dagne et al., 2021). The healthcare provider must retain all patients' medical records for at least 10 years after their last visit, whether they are alive or deceased. In the end, there are several documents and pieces of paper that are manually and conventionally kept.

Despite its many shortcomings, such as the loss of cards and folders, untraceable folders, increasing space consumption, documentation and medication errors, time wasted during card/folder retrieval and slow workflow, delayed access to effective medical care, etc., the traditional

(manual - pen to paper) system of recording, storing, and retrieving patient medical records has been in use for a long time. Due to risks associated with natural disasters like flood, theft, pest attacks, deterioration, and fire outbreak, among others, storing these paper documents and patient medical records can be a risky business (Mohana, Bhoomadevib and Amuthac, 2021).

The Health Information Portability and Accountability Act, which was established in 1996, marked the beginning of efforts to improve this approach. According to Lent, Zelano, and Lane (2013), HIPAA permits a person to move their medical record system in a safe and secure manner, and the restrictions resulting from this act have raised dissatisfaction for both the medical community and people who require medical assistance. Healthcare institutions were unable to switch to an electronic medical record because of their fear of violating the Health Information Portability and Accountability Act of 1996. The adoption of EMR will make healthcare paperless, however the HIPAA process has held down the transition. According to Shwartz, who was referenced in Lent et al. (2013), one of the main issues with it is that implementing a new system might cost hospitals 90 billion yet result in yearly savings for the hospital of 81 billion. According to the authors, this would allow the community to move between medical facilities

without having to create a new medical record. People working in the health care industry want to be innovative and move toward a paperless system, but lack of information has caused them to be concerned about costs and patient safety. The concern of "how would these medical records be permanently preserved, safeguarded, and managed to avoid being exposed to dangers" arises in light of this. The adoption of electronic medical records is one of the most significant responses to the query.

In order to address the various healthcare issues facing people in the modern world, this modern innovation has led to the adoption of Electronic Health (eHealth), which includes the use of electronic medical records, Health Information Systems, decision support systems, and telemedicine (Adebayo and Akinyosoye, 2021). This is due to its many benefits over the manual system of maintaining medical records. Health facilities are thinking about switching from paper-based records to electronic medical record systems in light of the introduction of information technology initiatives in the nation and around the world. The collection, storage, utilization, and dissemination of patient clinical data have become standardized thanks to information technology (IT). It is clear that a new system is gradually replacing manual (paper-based) methods, which many have described using different terms such as Automated Health Records (AHR), Computer-based Patient Record (CPR), Electronic Medical Record (EMR), and Electronic Health Record (EHR). One distinctive quality of this new system is that it aids medical practitioners in managing patient health data and enhancing care. In this new approach, medical data about patients is now being recorded using an electronic medium called an EMR, which is getting more sophisticated every day. The term Electronic Medical Record (EMR), which is used to describe an electronic record system used by general practitioners to record patient clinical information like identification, prescription, laboratory test results, etc., and which is primarily used for diagnosis and treatment, is the focus of this work. EMR systems are gaining ground among contemporary information technology (IT) system initiatives in developing nations with the aim of enhancing data management and communication in healthcare organizations. The creation of the EMR system allowed institutions to manage patient records in an intelligent, secure, and knowledgeable way (Oumer et al., 2021).

A digital version of a paper-based record on a patient's medical history kept in a doctor's office but not intended to be shared outside of that particular clinical practice is called an electronic medical record. All data that is administratively and clinically pertinent to a patient's hospital stay is electronically recorded in an EMR. Afolaranmi, Hassan, Dawar et al. (2020) described electronic medical records (EMR) as the electronic record of a person's health-related information created, collated, managed, and used by authorized healthcare providers in a health institution. Any healthcare system with an electronic medical records (EMR) system has the potential to revolutionize healthcare in terms of cost savings, medical error reduction, service quality improvement, patient safety improvement, decision-making, time savings, data confidentiality, and exchanging medical data. Depending on

the system and healthcare settings, using an EMR to read and write a patient's record may also be possible through mobile handwriting-capable devices, such as tablets and Smart phones. This makes it easily visible and accessible for consumers. Many healthcare facilities in Nigeria have demonstrated a strong interest in EMR and made significant progress in promoting their adoption in healthcare as a means of improving patient care, controlling costs, and meeting other health objectives as the adoption of EMR systems is quickly gaining momentum in many healthcare settings across the country (Alanazi, Butler-Henderson and Alanazi, 2019).

EMRs have reportedly been linked to several improvements in healthcare quality. Some of these include enhancing patient safety through the reduction of medication errors, enhancing care, efficiency through the elimination of redundant testing, enhancing care effectiveness through the use of clinical decision support systems, enhancing care timeliness through quicker access to clinical data at the point of care, and enhancing health delivery analysis through more effective outcome assessment, research, and audit to guide decision-making both at the individual practice level and across the health system (Kaala, 2017). The enormous advantages of EMR systems, including but not limited to the elimination of redundant paper-based processes, time management in registering and retrieving patient information, work efficiency and streamlined workflow, and simple access to patient data, enhancing patient safety, reducing prescription errors, reducing waste and costs associated with healthcare and research, and so forth are primarily responsible for the improvements in healthcare outcomes. This makes it possible for healthcare professionals to gather, coordinate, use, and transmit high-quality patient information. Despite these significant advantages of EMR, majority of healthcare facilities still register and document patients using paper and pen or a combination of manual and computerized systems. Because it takes less time and doesn't interfere with workflow, health professionals believe that using paper records for patient registration and documentation is more practical and effective. Some staff members lack basic computer skills and are therefore slow to type and enter data. Others are resistant to technological change because they are concerned about using IT, and still others are just slow in general, among other factors, there is little or no time to become familiar with new technology, there is a lack of adequate management, there is weak worker dedication, and there is poor maintenance service (Afolaranmi et al., 2020). These issues arise during the transition from the old manual system to the new electronic system, which typically leads to skeletal completion, low adoption, and low acceptance of the technology. These issues then result in poor patient care, as well as poor work performance and job satisfaction among health professionals. When these systems are made available, health information managers, physicians, nurses, and other caregivers must be able to use them successfully; nevertheless, many of them still prefer to keep paper records.

A large percentage of healthcare professionals prefer the conventional pen and paper method because they believe it to be easier to use than the EMR technology. By enabling

access to clinical data about specific patients and readable, organized medical records, Vos, Boonstra, Kooistra et al. (2020) contend that EMR improves the health system and clinical care. The adoption, use, and deployment of such systems have been found to be influenced by the perception of the healthcare professionals who are the systems' ultimate users. Based on their own talents, expertise, and experience, among other things, the providers may have different perceptions of the tools. As a result, user acceptance seems to be significantly influenced by perception (Alanazi et al., 2020).

Since they are the system's primary users, numerous studies have demonstrated that users' attitudes, acceptance, and skills are crucial for the adoption and implementation of EMR systems in healthcare systems. The installation of a new IT system has been found to result in significant worry, fear, apprehension, and unfavorable attitudes (Pera, Kaur and Rao, 2014). This was also supported by a research on the adoption of EMR that was carried out in Canada, where many participants cited the lack of knowledge about EMR's possibilities as a barrier to adoption. In order to improve the quality of care, electronic medical records are employed in many healthcare settings worldwide and in some regions of Nigeria; as a result, the attitude and perspective of the health information managers is a key component in the success of the transition from the manual (paper-based) to electronicsystem.

Healthcare professionals that specialize in health information management (HIM) are committed to managing patient health data and healthcare information effectively so that patients can receive high-quality care and treatment. Health information management is an organization's health information handling center. Health information management is crucial to the upkeep of health information, which is the gathering of clinical data about patients' physical and mental health that is gathered from many sources. Health information management (HIM) is the process of gathering, evaluating, and safeguarding digital and analog medical data necessary for delivering high-quality patient care, according to American Health Information Management (AHIMA) (2018).

For healthcare providers and other Health Insurance Portability & Accountability Act (HIPAA)-covered businesses to guarantee patient information privacy and security, health information management (HIM) is crucial. Because healthcare information overlaps with many other areas in the healthcare cycle, this sector also covers the preservation of medical records and their conversion to electronic formats, as well as the research of healthcare trends and the implementation of improvements. According to AHIMA, health information managers would be in charge of all aspects of an organization's record-keeping, collection, and retention, as well as security, privacy, analysis, and implementations, coding, and billing, as well as handling customer requests for personal health information (PHI) and ensuring compliance with laws. They offer services in all facets of records management, such as data collection and management, integrity, standards, disclosure, coding, disposal, and privacy of health information. To aid in healthcare delivery, patient safety, and

decision support, they thoroughly analyze the data in the health record. They support patients' rights to private, secure, and confidential information and help to ensure the confidentiality of health information included in patient records.

Healthcare workers from the Gulf countries appeared to be motivated to adopt these technologies by their perceived usefulness, which is indicated by the advantages of employing EMR in healthcare as well as its simplicity of use. The characteristics lead to not only a favorable view of the systems but also an increase in user satisfaction that is linked to a high likelihood of acceptance and adoption of the systems in healthcare practice. These results are consistent with those reported in additional research. For instance, according to Msiska, Mitzner and colleagues discovered that positive attitudes were connected to the general activities facilitated by technology, as well as its practicality and beneficial characteristics. Positive opinions of the usefulness and usability of EHR and EMR, as well as nurses' acceptance of the technologies, have been proven to be significantly positively correlated. According to the majority of respondents (n = 79/107; 73.8%), usage of an EMR did not obstruct providing care for patients during consultations, according to Msiska et al. (2017). Furthermore, out of 110 individuals, 72 (65.5%) said that computers were useful for both administrative and therapeutic tasks. The majority of respondents (n = 77/110; 70%) firmly agreed that electronic medical records were more beneficial than paper-based ones. EMR use was generally viewed favorably by healthcare professionals compared to paper-based records.

In order to explore the influence of individual, organizational, and technological features on attitudes about the usage of EMR, Mijin et al. (2017) used variables pertaining to these parameters. In this study, attitudes toward the usage of EMR among physicians, nurses, and administrative staff were surveyed. The findings demonstrated that compatibility, security, and accuracy must be carefully taken into account since they affect how beneficial medical professionals see EMR. Msiska et al., (2017) have looked into the use of EMRs both locally and internationally; and a survey at the QECH Antiretroviral Therapy (ART) Clinic revealed that 70% of respondents preferred using the EMR system over paper-based records. However, consumers found a number of issues when using the EMR system, including poor computer literacy and unstable network connectivity. SanJoaquin et al., whom the authors quoted, noted additional EMR-related difficulties, such as frequent power outages. However, the issue of protracted power outages was solved by using energy-efficient computers along with a long-lasting backup power supply. There are many and complicated obstacles that stand in the way of a successful transition from paper to electronic medical records. These obstacles will have an impact on users' attitudes, and failure to properly assess these caregiving obstacles and a lack of planning will cause a reversion to paper, jeopardizing the adoption of the EMR.

According to Alanazi et al., (2020) analysis of selected researches, there are a number of systems or individual elements that can affect how healthcare workers in the Gulf

area perceive EHR/EMR. The perception might be either good or negative, it was discovered. Lack of computer literacy was the main individual factor identified by the research as influencing healthcare providers' attitudes toward EHR/EMR. This personal trait led to a poor opinion of the systems, apprehension about using them, and low levels of pleasure. On the other hand, most of the system-related characteristics were linked to good perception and high user satisfaction. They primarily concerned aspects of perceived usability, convenience of use, and involvement of medical professionals who had a favorable opinion of EHR/EMR thought the systems were useful and offered a number of advantages. The advantages cited included improved ease of access for patients and healthcare professionals to patient information and other health records, enhanced ease of writing referral letter, increased use of practice guidelines, improved communication between healthcare professionals and patients, better decision-making, fewer medical errors, and higher quality patient care. Additionally, it was claimed that the technologies save time in health documentation processes, eliminated paperwork, improved workplace efficiency, increased user productivity, and reduced total healthcare costs. According to Alanazi et al. (2020), one study also revealed that the providers thought the tools were simple to use, which increases labor productivity in healthcare institutions.

Additionally, it was shown that EHR and EMR systems have drawbacks that lead to a bad impression that is likely to hinder their adoption and use by healthcare professionals. According to some medical professionals, the systems take more time to record patient information, are unable to obtain lab results, increase the risk of error, and cannot ensure patient confidentiality. They were also thought to be expensive, unreliable due to the possibility of power outages, and sophisticated, making them difficult to use (Alanazi et al., 2020).

Given that the country is still developing in the area of health information technology and the paucity of research, it is impossible to assess the attitude and perception of health information managers regarding the transition from paper records to EMR and about the current state of Nigeria's EMR system, in specifically how health information management professionals view it in terms of knowledge, attitude, and perception. When establishing an EMR system, it is important to get these professionals' perspectives in order to increase system acceptance. Therefore, the purpose of this article is to investigate the variables that affect these professionals' attitudes and perceptions towards the adoption and usage of EMR.

## 2. Materials and Methods

This study used a descriptive survey methodology and included all licensed health information managers working at the medical facility who had more than five years of work experience there. There are 57 of these health information managers, and they are deployed at various medical record service delivery points (Outpatient department, RVD, Medical and Surgical Outpatient, Accident and Emergency, Children Emergency, Children

Outpatient). The researchers made sure that regular operations at the healthcare center were not interfered with while the study was being conducted. Data were gathered using a questionnaire, and the reliability of the data was assessed using the Pearson moment correlation coefficient. The questionnaire items' reliability was satisfactory as evidenced by the reliability coefficients, which were  $r=1.98$ . The data were presented using frequencies and percentages in the descriptive statistics, and the chi-square test was performed to examine the association between the variables at the 0.05 level of significance.

## 3. Results

**Table 1:** Socio-Demographic Information of the Respondents (N = 57)

Gender	Frequency	Percentage
Male	7	12.3
Female	50	87.7
<b>Age</b>		
20-24 years	5	8.8
25-29 years	16	28.1
30-35 years	12	21.1
>35	24	42
<b>Academic Qualification</b>		
OND	10	17.5
HND	35	61.4
BSc	11	19.3
Others	1	1.8
<b>Job Rank</b>		
CHRO (Chief Health Record Officer)	6	10.5
AHRO (Assistant Health Record Officer)	9	15.8
PHRO (Principal Health Record Officer)	5	8.8
SHRO (Senior Health Record Officer)	34	59.6
HRO (Health Record Officer)	1	1.8
HRT (Health Record Technician)	2	3.5
<b>Years of Practice</b>		
0-2 years	13	22.8
3-5 years	17	29.8
>5 years	27	47.4

According to the respondents' socio-demographic information, 50 (87.7%) were female and 7 (12.3%) male. The research suggests that respondents who identified as female made up the vast majority of the sample.

The results show that 8.8% of respondents are between the ages of 20 and 24, 28.1% are between the ages of 25 and 29, 12.1% are between the ages of 30 and 35, and 42% are over the age of 35. This indicates that respondents who were 35 and older made up the majority of the sample.

According to the respondents' academic backgrounds, there are 10 (17.5%) OND holders, 35 (61.4%) HND holders, 11 (19.3%) BSc holders, and then (1.8%) holder of Master degree in Health Information Management.

According to job rank, there are 34 (59.6%) health record officers, 2 (3.5%) health records technicians, 1 (1.8%) senior health record officer, 6 (10.5%) chief health record officers, 9 (15.8%) assistant health record officers, 5 (8.8%), and principal health record officers. This suggests that the majority are health record officers by profession.

According to the respondents' years of experience, there are 13 respondents (22.8%) with 0 to 2 years of experience, 17 respondents (29.8%) with 3 to 5 years of experience, and 27

respondents (47.4%) with 5 years of experience or more. This result suggests that the majority of respondents have been in practice for at least five years.

**Table 2:** Distribution of the respondents on the attitude and perception of HIM towards the conversion from manual to electronic medical records (N=57)

Are you aware of EMR?	Frequency	Percentage
Not at all aware	0	0
Slightly aware	0	0
Somewhat aware	4	7.1
Moderately aware	10	17.5
Very aware	43	75.4
<b>Do you currently use EMR in your facility?</b>		
Yes	49	86
No	8	15
<b>In what area do you apply EMR in your facility?</b>		
Collecting patient's information	25	43.9
Data Analysis and Retrieval	0	0
Registration and Documentation	30	52.6
Report generating and recording	2	3.5
<b>How often do you use EMR?</b>		
Daily	41	71.9
3 times a week	4	7
Once a week	2	3.5
I do not remember	9	15.8
Rarely	1	1.8
<b>When you first involved with EMR, what was your first impression?</b>		
Very negative	5	8.8
Neutral	17	29.8
Very positive	35	61.8
<b>Were you given any formal training or orientation on the use of EMR before or after its implementation?</b>		
Trained	9	15.8
Oriented	23	40.4
None	25	43.8
<b>Is your facility full EMR compliant?</b>		
Full EMR	5	8.8
EMR and Manual	50	87.7
Manual	2	3.5
<b>Is EMR fully acceptable by Health Information Managers in this facility?</b>		
Totally acceptable	36	63.2
Unacceptable	1	1.8
Slightly unacceptable	1	1.8
Neutral	2	3.5
Slightly acceptable	13	22.7
Perfectly acceptable	4	7
<b>Which do you prefer, EMR or Paper-based system?</b>		
EMR system	50	87.7
Paper-based system	7	12.3
<b>If EMR, What specific reason do you have?</b>		
Easy to enter data and store more data	24	48
Saves time in processing of patient registration	14	28
Acceptable by professionals	2	4
Reduce medical error and costs	0	0
Reduces patients waiting time	0	0
Reduces paper work	10	20
<b>If paper-based, what specific reason do you have?</b>		
Easy to use	6	85.7
EMR not acceptable	0	0
Easy to file patient medical records	0	0
EMR is time consuming	0	0
Ability to access patient's records wherever necessary	1	14.3
Allows patient records to be protected from physical damage.	0	0

Source: Field Survey, 2022

Table 2 above shows the percentage of people who were aware of EMR. Of those, 4 (7.1%) were only somewhat aware, 10 (17.5%) were only moderately aware, and 43 (75.4%) were very aware. Additionally, 49 (86%) of the respondents presently utilize EMR, while 8 (14%) do not.

EMR is used in the collection of patient’s information 25 (43.9%), 30 (52.6%) of the applications is for registration and documentation, and 2 (3.5%) of the applications is for report generating and recording.

Regarding the frequency of use, 41 (71.9%) people use EMR everyday, 4 (7%) use it three times per week, 2 (3.5%) use it once per week, 9 (15.8%) can’t recall the last time they used it, and 1 (1.8%) uses EMR rarely.

5 (8.8%) of first-time users of the EMR had a very unfavorable experience, 17 (29.8%) felt neutral, and 35 (61.4%) had a very positive one. In the same table, 9 (15.8%) respondents confirmed they had gotten training on how to use an EMR, while 23 (40.4%) said they had simply

received orientation and 25 (43.8%) did not respond. While 50 (87.7%) indicated that the facility still employs both the EMR system and the manual method simultaneously, just 5 (8.8%) claimed that the facility is entirely EMR compliant, and only 2 (3.5%) said that the facility still uses the manual approach.

The majority (63.2%) of respondents completely accepted EMR, 1.8% were unacceptable and slightly unacceptable respectively, 3.5% were neutral, 22.7% were slightly acceptable, and 7% perfectly accepted EMR.

The majority of respondents 50 (87.7%) favoured utilizing an EMR system because it is simple to enter data, stores more data (48%), speeds up (saves time) the patient registration process (28%), is acceptable to professionals (4%), and requires less paper work (20%). The remaining 12.3% of respondents who chose a paper-based approach then gave their justifications, including ease of use (85.7%) and convenient access to patient records (14.3%).

**Table 3:** Distribution of the respondents on the factors influencing the attitude and perception of health information managers towards the utilization of electronic medical records (N=57)

Since the introduction of EMR, how has it affected your work?	Frequency	Percentage
Very negative	7	12.3
Neutral	13	22.8
Very positive	37	64.9
<b>What do you think is the factor affecting the attitude of Health Information Managers towards EMR?</b>		
Lack of computer literacy skills	28	49.1
Fear of using EMR	1	1.8
Risk of power outage	21	36.8
Cost of implementation	3	5.3
Low satisfaction levels	0	0
EMR do not guarantee patient confidentiality	3	5.3
<b>Do you think you can depend on the existing manual documentation system?</b>		
Very frequently	9	15.8
Frequently	11	18.3
Occasionally	20	35.1
Infrequently	9	15.8
Never	8	14
<b>How will you rate your level of competence in the use of the EMR?</b>		
Competent	26	45.6
totally competent	19	33.3
Not developed	2	3.5
Very strong	4	7
Under developed	6	10.5
<b>What is your evaluation of the existing EMR in this facility?</b>		
Poor	6	10.5
Fair	12	21.1
Good	20	35.1
Very good	10	17.5
Excellent	9	15.8

Table 3 above reveals that 37 (64.9%) people said EMR had a very positive impact on their work, while 7 (12.3%) said it had a very negative impact. Thirteen (22.8%) people said it had a neutral impact.

Regarding the factor influencing health information managers' attitudes toward EMR, 28 (49.1%) mentioned a lack of computer literacy skills, 1 (1.8%) mentioned a fear of using them, 21 (36.8%) considered the risk of a power

outage, 3 (5.3%) mentioned the cost of implementation, and 3 (5.3%) claimed that EMR do not guarantee patient confidentiality. 9 people (15.8%) thought they could very frequently rely on the manual documentation system already in place. 11 (19.8%) frequently, 9 (15.8%) replied infrequently, 20 (35.1%) occasionally, and 8 percent (14%) never depended on it.

26 people (45.6%) are competent in using EMR, 19 people

(33.3%) are totally competent, 2 people (3.5%) are not developed, 4 people (7%) are very strong, and 6 people (10.5%) are underdeveloped in using EMR, according to the results.

According to the general evaluation of the existing EMR in the study region, 6 (10.5%) people thought the quality was poor, 12 (21.1%) thought it was fair, 20 (35.1%) thought it was good, 10 (17.5%) thought it was very good, and 9 (15.8%) thought it was exceptional.

**Table 4:** Distribution of the respondents on the challenges experience in using EMR (N=57)

What do you think is the challenge you experience in using EMR at the clinic?	Frequency	Percentage
EMR adds burden to us	3	5.3
Poor network failure	23	40.4
Power outage	22	38.6
Inability to navigate round the environment	6	10.5
Time taken for documentation of patient information	3	5.3
<b>What do you think should be done to make EMR more useful to you and the patient?</b>		
Training and retraining for more skill acquisition	34	59.7
Resource allocation	0	0
System upgrade to more user friendly EMR system	6	10.5
The information presented on the EMR system should be made to agree with the needs of HIM	4	7
Provision of swift network connection and constant power supply	13	22.8

Source: Field Data 2022

The results of the challenges encountered when using EMR at the clinic showed that 3 (5.3%) objected that EMR adds burden to them, while 23 (40.4%) reported poor network failure, 22 (38.6%) complained of power outage, 6 (10.5%) pointed out inability to navigate around the EMR environment, and 3(5.3%) complained that it takes time for patient information to be documented.

34 respondents (59.7%) suggested training and retraining of health information managers for more skill acquisition, 6 respondents (10.5%) suggested system upgrade to more user-friendly EMR system, 4 respondents (7%) suggested the information presented on the EMR system should be made to agree with HIM's needs, and 13 respondents (22.8%) suggested the provision of swift network connection and stable power supply.

#### 4. Discussion

According to the respondents' socio-demographic data, the majority (87.7%) of them was female, 59.6% of them were married, 42% of them were over 35 years, and 61.4% of them had an HND certificate. The majority of these respondents (59.6%) hold the position of health record officer, and 47.4% have five years' worth of work experience.

The results show that 61.4% of the respondents had a very favorable initial impression of EMR when they first used it, which contributed to its overall acceptability (63.2%). 87.7% of respondents preferred utilizing an EMR system because it is simple to enter data, stores more data (48%) and reduces processing time for patient registration (28%). This is consistent with Msiska et al., (2017) that 70% of the study's participants preferred EMR to paper-based records. However, 12.3% preferred the paper-based approach because it is simple to use (85.7%) and makes patient records available whenever needed (14.3%). These results concur with those made by Mitzner and colleagues, who discovered that positive attitudes were connected to the functions enabled by technology generally, as well as its practicality and beneficial characteristics. It is vital to highlight that the acceptability of EMR technology by healthcare practitioners is based on their perceptions, which was also supported by Adebayo and Akinyosoye (2021).

The results of the factors that health information managers believed affected their attitudes and perceptions of using EMRs reveal that 36.8% of respondents and 49.1% of respondents, respectively, believed that the risk of power outages and a lack of computer literacy were influencing factors.

Since EMR was implemented in the facility, 64.9% of the respondents said it had had a very favorable impact on their work. This supports the finding of the experiment that health information managers' attitudes toward transition from paper to electronic medical records are not significantly influenced by how they are perceived.

This is in line with the findings of the reports by Alanazi et al. (2020) and Msiska et al. (2017), which found that system deficiencies and a lack of computer literacy skills were negatively associated with healthcare professionals' perceptions.

According to the research on the difficulties encountered when using EMR, poor network failure (40.4%) and power outages (38.6%) were the two biggest difficulties encountered. This was further supported by Msiska et al. (2017) who found that frequent power outages, unreliable computer network connectivity, and a lack of basic computer skills were among the issues users had with using the EMR system.

#### 5. Conclusion and Recommendations

The study found that health information managers' attitudes and perceptions were overwhelmingly positive, which led to their complete acceptance of EMR. This led them to prefer using an EMR system because it is simple to enter data, stores more data, and speeds up the patient registration process. As a result, EMR has had a very positive impact on their work.

In conclusion, it is crucial to fully adopt the usage of electronic medical records in Nigeria's health facilities' departments that handle health records. This is done to encourage HIM professionals to become more computer

literate to increase productivity, which will increase patient satisfaction.

The following suggestions were made in light of the findings:

- 1) Health records department staff must take required computer literacy classes to gain the skills necessary for their jobs.
- 2) A sufficient computer setup and swift internet setup for top work output.
- 3) Providing an alternative power source to ensure efficient operation.

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