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Improving the Accuracy of Medical Records in Healthcare Institutions

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Walden University
2024

Abstract

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by

Tarkessa Frazier

MS, Walden University, 2012

BS, Strayer University, 2010

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

March 2024

Abstract

Using archaic healthcare recording systems can result in errors that negatively impact healthcare leadership and patient care delivery practices. Errors in healthcare records may lead to misinformation healthcare leaders provide to patients, reducing the credibility of healthcare leaders in failing to provide a safe and reliable service. Grounded in the technology acceptance model, the purpose of this qualitative multiple case study was to explore the implementation tactics of electronic health records used by healthcare leaders. The participants were 5 healthcare leaders in Georgia and Florida who effectively used strategies to implement EHR to promote patient safety and profitability. Data were collected from semistructured interviews, company documents, and social media platforms. Yin's five steps for data analysis were used to extrude meaning from the data collected, which were (a) compile data, (b) dissemble data, (c) reassemble data, (d) interpret data, and (e) report findings. Three themes emerged: improve communication to enhance teamwork to increase patient care, establish training to prevent medical errors and increase charting accuracy and completeness to enhance changes. A recommendation would be to work with employees individually to review patterns of mistakes and work to reduce the errors. The implication for positive social changes includes the potential for healthcare leaders to ensure the accuracy of medical records to improve hospital performance and patient care within the communities.

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Dedication

To say you have traveled this path is an understatement. I dedicate this doctoral research

to myself in appreciation of my diligence, skepticism, tears, and fortitude.

He walked with me even when I doubted myself.

"You may shoot me with your words, you may cut me with your eyes, you may kill me
with your hatefulness, but still, like air, I'll Rise."   - Maya Angelou

Acknowledgments

I am incredibly grateful to God. I have prayed for direction and guidance the entire way. Now, I will be known as Dr. Tarkessa Frazier. Dreams do come true.

My sincere appreciation to my chair, Dr. Carol-Anne Faint, is beyond words. Words like inspiration and unique come to mind when I consider how you have supported and encouraged me on my path to a doctoral degree. Saying that I admire you would be putting it mildly. Professors like yourself are invaluable in helping students pursue doctoral degrees and motivating them to cross the finish line. Additionally, I would like to thank Drs. Freda Turner, Peter Anthony, and Janie Hall for being members of my committee. I appreciate your criticism and encouragement to finish the best possible study. Thank you. Thank you all once more.

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Section 1: Foundation of the Study

Training is necessary to implement electronic health record (EHR) applications correctly. A lack of proper training may lead to increased errors affecting patient care. Training policies and strategies are an integral part of proper EHR systems (Samadbeik et al., 2020). Training should be tailored to the specific training requirements, objectives, system used, and organizational context. Samadbeik et al. (2020) focused on the capacity of healthcare practitioners and students to use EMRs efficiently, which can lead to improved clinical results. Therefore, training policies and methods are critical to effectively adopting and continuously using any application system.

Background of the Problem

The history of clinical documentation is based on paper-based records. Paper-based records are cumbersome and ineffective and have restrictions in allowing a global vision of the patient's health conditions (Abdulai et al., 2020). Leaders use EHR systems to gather potentially generated health data (Abdulai et al., 2020). Researchers, healthcare administrators, and clinicians are growing more interested in the secondary use of EHR data to enhance clinical knowledge and their capacity to provide patient care environments due to the widespread adoption of EHR systems. As a result, significant amounts of electronic clinical data are generated (Niazkhani et al., 2020). Consequently, clinical care staff face challenges using EHR applications due to a lack of training. Lack of training could lead to missing information or the wrong information on patient care (Ghaith et al., 2022). More than 75% of emergency doctors have been involved in malpractice lawsuits throughout their careers. Up to 20% of these lawsuits are likely to

have documentation problems. According to Ghaith et al. (2022), the most common characteristics of these cases are inadequate documentation (70%), erroneous content (22%), or poor mechanics (18%). Therefore, the EHR consists of a repository of information on the health status of individuals, in which health records are created and managed in digital formats. With the widespread adoption of EHR systems, researchers, healthcare administrators, and clinicians are becoming more interested in the secondary use of EHR data to improve their capacity to provide clinical knowledge in patient care settings. As a result, a significant amount of electronic clinical data is generated throughout the hospital.

Problem Statement

Using health information technology (HIT), including EHR, enhances support of medical practitioners in the delivery of diagnostics and treatment of medical patients (Giunti et al., 2019). However, medical practitioner recording errors may jeopardize patient care. Gowda et al. (2020) found that 43.9% of medical practitioners strongly believed the lack of accurate patient records would result in repeated investigations into patient health status. The general business problem is that medical practitioners who do not implement HIT and EHR initiatives may experience increased inaccurate recording practices leading to diminished hospital performance and patient care. The specific business problem is some medical practitioners lack HIT and EHR strategies to ensure the accuracy of medical records to improve hospital performance and patient care.

Purpose Statement

The purpose of this qualitative multiple case study was to explore the HIT and EHR strategies that some medical practitioners use to ensure the accuracy of medical records to improve hospital performance and patient care. The target population included at least 5 medical practitioners from two medical facilities, who have successfully used and implemented HIT and EHR strategies that improved the accuracy of medical records. Implications for social change include efficient use of medical practitioner time, which can serve a greater population of patients, and improve patient care.

Nature of the Study

Researchers use a qualitative, quantitative, or mixed methods approach to investigate phenomenon (Saunders et al., 2017). Quantitative researchers collect statistical data on the presence or absence of a phenomenon. Quantitative researchers analyze numerical data to explain behavior (Allen, 2017). I did not select the quantitative method because the purpose of the doctoral study was to identify and explore HIT and EHR design and implementation strategies that was used to ensure the accuracy of medical records. Researchers do not gain these insights through a basic numerical analysis of how much of the behavior exists. A mixed methods researcher combines both qualitative and quantitative methods to explore and examine phenomena (Saunders et al., 2017). I did not select the mixed methods approach due to the inclusion of quantitative method, which was not needed to address the intent of the doctoral study. The qualitative method was appropriate for the doctoral study as my intent was to collect and explore

data to answer the central research question, which is focused on strategies to ensure the accuracy of medical records to improve hospital performance and patient care.

A qualitative researcher typically selects among phenomenological, narrative, or case study designs to conduct a study. A phenomenological researcher investigates the personal meanings of participants' lived experiences (Moustakas, 1994). The phenomenological researcher seeks to understand the meanings of the lived experience as the best source of evidence and relies on this alone to generate findings (Thompson et al., 2017). I did not select the phenomenological design as I did not explore the personal meanings of the participant's lived experiences alone. The narrative researcher seeks to characterize participants' life-long experiences through their personal stories to explain current behaviors (Saunders et al., 2017). Personal stories of life-long experiences may not influence a medical practitioner's accurate use of medical recording technology; therefore, I did not select the narrative design. A case study researcher uses interviews and a review of relevant documentation and physical artifacts to explore phenomena (Yin, 2018). The multiple case study design was most appropriate for the doctoral study as my intent was to use multiple agencies, and multiple sources to compare and findings across cases to address the central research question.

Research Question

The central research question was: What HIT and EHR strategies do medical practitioners use to ensure the accuracy of medical records to improve hospital performance and patient care?

Interview Questions

1. What HIT and EHR strategies do you use to enhance the accuracy of medical records?

2. How do you determine the HIT and EHR strategies to improve the accuracy of medical recording practices?

3. Based upon your experience, how, if at all, has HIT and EHR training helped to ensure greater accuracy in medical records?

4. How do you evaluate the effectiveness of your organization's HIT and EHR of medical records to improve hospital performance and patient care?

5. What outcomes are you experiencing as a result of implementing the HIT and EHR strategies for accurate medical recording practices?

6. What efficiencies resulted from improved accuracy in medical recording practices?

7. What benefits have been realized for improved patient care as a result of the HIT and EHR strategies for accurate medical recording practices?

8. What key challenges did you experience in implementing the HIT and EHR enhancing the accuracy of medical recording practices?

9. How do you address the key challenges to implementing the successful HIT and EHR strategies for ensuring accurate medical records?

10. What additional information can you provide to help me understand your organization's HIT and HER strategies for improving the accuracy of medical records?

Conceptual Framework

I used socio-technical systems theory as the conceptual framework for this doctoral study. Initially coined by the Tavistock Institute in 2006, the socio-technical systems theory was grounded in general systems theory (see von Bertalanffy, 1950). People and technology are connected within diverse, interconnected networks that enable and prevent those situations and occurrences, according to socio-technical theory (Clarke et al., 2016). Socio-technical systems theory integrates technology and social influences into the larger systems within businesses and society (Mumford, 2006). The tenets of this theory include (a) systemic social factors, (b) technological advancements, and (c) organizational growth. Adaba and Kebebew (2018) underscored the importance of businesses to consider technology in conjunction with human and social interactions when exploring organizational development strategies. The socio-technical systems theory was useful for understanding HIT and EHR strategies based on the assumption that these systems store information and affect treatment (Clarke et al., 2016). Relationships among technology specialties, emerging dynamic influences, and existing socio-technical frameworks shaped transition and transformation movement using socio-technical systems thinking (Marjanovic et al., 2020). The transformation occurs by emphasizing the importance of domains as a steppingstone and a guide, emphasizing end-users as core and active players in the evolving healthcare system environment (Marjanovic et al., 2020).

I used the socio-technical systems theory to investigate three connected elements, technology, society, and organizational growth, for addressing the purpose of the doctoral

study. Improving the standard of health and social care means making it safer, more affordable, person-centered, timely, accessible, and fair (Tallentire et al., 2019). Any high-performing healthcare system relies heavily on quality systems theory.

I also used the lens of the Juran Trilogy. The Juran Trilogy is a well-known and widely used operational quality management paradigm that includes quality planning, quality control, and quality improvement (QI; Tallentire et al., 2019). I, therefore, expected the composite conceptual framework of socio-technology systems theory and the Juran Trilogy to enable me to understand the strategies the participating organizations used for the design, development, implementation, control, and improvement of medical records' accuracy.

Operational Definitions

Electronic health records (EHR): Electronic health records are digital version of a patient's medical data was generated and updated throughout the patient's health and was generally saved and dispersed across multiple health facilities, clinics, and healthcare professionals (Mayer et al., 2020).

Health Information Systems (HIS): Health Information Systems a type of information system that was designed to manage healthcare data by gathering, maintaining, and exchanging EHR, as well as administering a hospital's business operations and assisting with healthcare policymaking (Jabbar et al., 2020).

Interoperability: Interoperability was the ability of various information-technology networks and software programs to interact directly, share data, and use the

data that has been shared (McCormack et al., 2021). Thus, interoperability allows shared knowledge by different stakeholders in the medical field (Sreenivasan & Chacko, 2021).

Assumptions, Limitations, and Delimitations

Assumptions

I assumed that participants would remember essential details during the interview, which would improve the quality of the study. I also assumed that interviewees would be truthful in their responses.

Limitations

Limitations are flaws in the study that may impact the research's findings and conclusions (Ross & Bibler, 2019). One limitation was that the small sample size used for this study did not likely create findings that can be generalizabled to all hospitals everywhere. The second limitation was that some participant responses may contain bias when answering interview questions.

Delimitations

The boundaries established for the investigation are known as delimitations (Yin, 2018). The first delimitation was participants of this study included at least 5 hospital physicians with a least 5 years of experience in healthcare. Second, the study included only one nonprofit hospital located in Thomasville, Georgia.

Significance of the Study

Medical practitioners can ensure the accuracy of medical records to improve hospital performance and patient care. Therefore, exploring HIT and EHR strategies may

be useful for medical practitioners in a hospital setting, improving hospital performance and patient care.

Contribution to Business Practice

The doctoral study's findings and recommendations may contribute to business practice by accentuating the importance of both social and technical influences on organizational performance improvement, which could catalyze business owners' identifying and applying strategies to improve medical records reporting and recording practices to enhance information accuracy. Incorporating these elements into establishing and maintaining accurate medical records in medical institutions may enhance organizational efficiencies and effectiveness in patient service delivery and intercommunications among medical professionals with derivative reductions in hospital costs.

Implications for Social Change

The doctoral study had implications for social change by improving patient services within community healthcare institutions. More rapid and efficacious treatment of patients may lead to reduced stays and greater patient intakes improving the efficacy of medical care. Improved organizational performance in healthcare facilities may enhance patient quality of life and enhance the overall health and wellness within patients' families and communities.

A Review of the Professional and Academic Literature

Since 2010, the EHR and other HITs are used to assist doctors in treating patients (Giunti et al., 2019). According to Giunti et al. (2019), HIT adoption has several

challenges, such as misalignment of investments and benefits, workflow disturbances, and privacy and confidentiality issues. In addition, a growing and understudied hurdle is the absence of HIT training among healthcare professionals as a workforce. The purpose of the literature review was to strengthen the reader's knowledge of the healthcare industry's theories and practices. The substance of the literature on EHR and medical mistakes using this application, as well as approaches to prevent medical errors, was included in the literature review. A critical examination and synthesis of numerous sources of literature were also included.

Ideas, implementation, methodologies, barriers, medical errors, history, and correct EHR usage formed the basis of the literature review. The following subsections were covered in the literature review: (a) The Evolution of EHRs, (b) Proper Use of EHRS, (c) Caution in EHR Application, (d) EHR or (HIT) Quality Assurance, and (e) Gaps in Implementation. 110 (90%) of the 122 references were published between 2018 and 2022, no more than 5 years before my planned graduation. HIE, interoperability, and EHR were the essential terms employed in this study's research. I used the relevant phrases using Google Scholar, ProQuest, and Science Direct to develop the literature review.

Socio-Technical Theory

The framework for this study was socio-technical theory. In the 1950s and 1960s, the Tavistock Institute in London conducted research that gave rise to socio-technical theory (Botla & Kondur, 2018). The most typical use of socio-technical systems is independent cooperation or self-managed teams. Self-managed teams with variable

duties are more efficient than teams with strict roles. Botla and Kondur's (2018) socio-technical systems theory impacted the Quality of Work Life Movement in the 1970s. Therefore, leaders used the theory to provide a framework for analyzing three connected elements: technology, society, and organizational growth, which was the goal of the suggested study.

Complexity thinking is growing more acceptable in healthcare. Healthcare systems are complex and dynamic by nature, and the architecture and operation are influenced by societal ideals, traditional practices, and economic factors (Kwiatkowska, 2021). Ngowi and Mvungi (2018) indicated that sociotechnical systems are technology and social systems that interact in a complicated way. The researchers further noted that technologies were open-ended and adaptable to the ever-changing environment. And humans, culture, organization, the context of usage, usefulness, rules, and regulations all have a significant impact on sociotechnical systems.

Socio-technical viewpoints affect humans and play a pivotal role in in their designing of systems to accomplish their operational goals. The essential purpose of the socio-technical systems approach is to optimize the technical and social systems to get the best results (Ngowi & Mvungi, 2018). Furthermore, socio-technical systems theorists build technologies that adapt to human needs and complicated social environment requirements rather than humans adapting to the system's demands (Ngowi & Mvungi, 2018). In addition, the idea is to create people-oriented computers rather than people-oriented computers.

Since the 1970s, the medical profession had made tremendous breakthroughs, and in the 2020s, even more measures are being taken to maximize healthcare quality (Zeayter, 2021). According to Zeayter (2021), HIT is transforming the landscape of patient-doctor relationships by relying on computer software. The overwhelming benefits of this improved technology stand to substantially improve numerous distinct critical parts of how a physician can gather essential information about a patient and, as a result, improve patient care. Furthermore, HIT is an umbrella concept for describing the entire management of health information across electronic methods and its safe interchange between customers, providers, government and quality bodies, and insurers. HIT is the most promising instrument for enhancing the healthcare delivery system's overall quality, safety, and efficiency (Zeayter, 2021). D'Amore et al. (2021) indicated that clinical quality metrics highlight those chances to enhance treatment that was responsible for enhancing and progressively influencing healthcare professional reimbursement. In addition, EHR use has increased substantially over the years, and many clinicians are now required to prepare and submit quality reports using their EHR or another recognized technology.

A movement began from paper-based to electronic health reports, owing to technological advancements and the Institute of Medicine's advocacy in the United States (Tsai et al., 2020). Tsai et al. (2020) further indicated that as the shortcomings of paper-based health reports become more apparent to the healthcare system, electronic records have provided many potential gains over the last 25 years. Notwithstanding the advancements in EHRs, deployment and acceptance issues continue, and the advantages

achieved fall short of their potential. The method of introducing EMRs is challenging and requires the time for staff to understand and comprehend the entire business process (Lin et al., 2020). Additionally, healthcare delivery is a mixture of systems, procedures, results, and practitioner and patient characteristics that significantly impact the outcomes. A new EHR delivery process had different impacts on specific medical professionals' activities, data recording timing, and the pace and sophistication of the migration activity (Dutta & Hwang, 2020). As a result, the adoption of EMR alters the distinct method of medical treatment established by doctors over time.

Miller et al. (2021) stated that following the passage of the Health Information Technology Act of 2009, which encouraged the adoption and meaningful use of electronic health records, there was a six-fold rise in EHR use after more than US $19 billion was provided to make it possible. Miller et al. (2021) also indicated that, as a result, the EHR had become the critical repository for health data needed to aid clinical decision-making. While Boothe et al. (2020) indicated that there was a lack of engagement of doctors, who were the key users of EHRs, who may produce issues with the successful deployment of EHR. Although there may also be a lack of motivation to depart from established methods and systems,

To date, physicians' failure to adopt the present system may be due to inadequate training and features that lack EHRs. Thus, physicians' failure to adopt the EHR may relate to a lack of knowledge of the present system, inadequate training, and critical features of EHRs (Boothe et al., 2020). Healthcare workers discovered that the old methods did not permit them to execute their documentation jobs effectively and

adequately, needed too many keystrokes, and frequently required repeat paperwork
(Boothe et al., 2020). However, if there are essential and crucial sections lacking for
documenting that may include necessary and fundamental information for a specific
client, a physician may revert to prior writing methods for the sake of time efficiency and
error prevention. The quick and broad adoption of EHR was directly influenced by digital
technologies (Forman et al., 2020). In addition, patient health information is more readily
available when EHRs are used, resulting in more efficient patient treatment. Furthermore,
the electronic sharing of patient health data supports efforts to enhance treatment safety
and quality. At the same time, EHR training should address EHR system usability and
compliance. HIT adoption had several challenges, such as misalignment of investments
and benefits, workflow disturbances, and privacy and confidentiality issues. There
remains a growing and understudied hurdle in healthcare professionals' absence of HIT
training.

Alternative Theories

Technology Acceptance Model

It was common for technological developments to result from collaborative
efforts. Therefore, technological change is frequently the outcome of collaborative
thought; technology acceptance is likewise the consequence of a team effort (Kashada et
al., 2020). Technology acceptance models were used to understand what the person was
trying to do and how likely it was that a piece of technology had been accepted by a
particular group of people (Kashada et al., 2020). The technology acceptance model
(TAM) is based on Fishbein and Ajzen's research on beliefs, attitudes, and behaviors

(Kashada et al., 2020). Granić and Marangunić (2019) stated that perceived usefulness and ease of use predict attitudes and actual behavior. The TAM is a way to determine how people feel about online technologies. TAM is the most important model for figuring out what people would do if they think they might like or not like a new technology (Deslonzde & Becerra, 2018). The TAM includes four parts: perceived ease of use, perceived usefulness, attitudes, and real-world behavior. The TAM was inappropriate for this doctoral study because it is used to determine how people feel about technology and the purpose of this study was to explore strategies used to cope with EHR and educate medical staff on the application to omit medical errors.

Unified Theory of Acceptance and Use of Technology

The unified theory of acceptance was designed to represent user information through technology. Venkatesh created the unified theory of acceptance and use of technology (UTAUT) in 2003 to describe user intention to use an information system (IS) (Persada et al., 2019). Many scholars employ this theory to understand how people interact with technology. According to the model, four constructs play a crucial role as direct drivers of IS usage: Performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC). PE is defined as the level at which the user believes the technology would assist them in achieving the benefit in work performance. EE is best defined as the point at which the user recognizes the system's ease of use. SI is defined as the degree to which how users perceive the system was essential to others in terms of how they use it (Persada et al., 2019). FC is the amount of user conviction that the infrastructures and control behavior against the system exists to

aid in implementing the plan (Persada et al., 2019). The UTAUT theory was

inappropriate for the doctoral study because it is used to understand the implementation

of technology.

Diffusion of Innovation Theory

Diffusion is a social phenomenon that occurs when individuals hear about

innovations, such as a new evidence-based strategy for expanding or enhancing health

care. The diffusion of innovations in the research and practice paradigm provides a set of

concepts and methodologies to explain individual and organizational receptivity to

healthcare policies and practices (Dearing & Cox, 2018). Diffusion principles can be used

to boost uptake and extend the reach of health advances (Dearing & Cox, 2018). This

theory was not appropriate for the doctoral study because I investigated the potential

strategies for using technological application of EHR.

The Evolution of EHRs

The usage of EHR applications provides several benefits to the healthcare

industry. EHRs result in automating manual operations such as collecting data from

charts and filling out datasheets. According to Poongodi et al., (2021) in the mid-2020s,

the EHR data analytics tools market predicted that the EHR industry would exceed $34

billion, driven mainly by a growing need to streamline processes and gain valuable

insights into clinical concerns. According to Poongodi et al., (2021) by 2023, the health

information technology sector was projected to be valued at $223.16 billion, partly due to

deep learning. EHRs were a popular study topic for deep learning academics since it

allows for greater accuracy in medical situations. The EHRs are developed using secure

computer networks and integrated health information systems (Salleh et al., 2021).
Authorized healthcare practitioners can use these networks for consultation and
information sharing across all settings. The use of EHR improved the quality of writing
requirements of physicians in an intensive care unit by permitting them to spend more
time on medical evaluation with multiple physicians at the same time and less time on
paperwork and clerical task (Salleh et al., 2021). However, the interaction between
customer quality and efficient use was significant but nonsignificant, indicating user
frustration with the system (Salleh et al., 2021). Salleh et al. further indicated that
inadequate technical quality of service, such as unskilled employees, insufficient
computers, unplanned/frequent network breakdowns, and power failures, are common
causes of inaccuracies. Therefore, ongoing IT service support for EHR systems, PCs, and
networks, as well as effective end-user teaching, are critical factors in increasing EHR
implementation success.

  The implications would be substantial if health information exchanges (HIEs)
were successfully designed with EHRs, provided comprehensive patient information, and
were easy to browse (Turbow et al., 2021). The enhanced communication process
between clinical situations and clinics, long-term treatment centers, neighborhoods, and
patients, facilitated by HIEs, was essential to minimize adverse outcomes associated with
patient care (Turbow et al., 2021). Also, it may make healthcare professional processes
smooth and easy by enhancing access between healthcare situations and drug stores,
long-term care centers, neighborhoods, and patients. Thus, EHR systems, PCs, and
networks can be practical tools for long-term care centers.

Proper Use of EHRs

The use of EHRS can be relevant in health care. Various healthcare developers have emphasized the relevance of HIT, and it was worth continues to rise due to the difficulties that healthcare faces today (Laukka et al., 2020). An increasing variety of HITs could improve the performance, security, patient-centeredness, and cost-effectiveness of care (Laukka et al., 2020). However, compared to other business sectors, digitization in healthcare was slower and more complex. Furthermore, despite substantial gains, HIT deployment frequently fails. Lack of leadership in healthcare facilities was one of the causes of HIT implementation failure; thus, further study on the importance of leadership in HIT deployment was required.

As a result, it has been doctoral that HIT, like EHRs, contributes to psychiatric physician burnout. The EHRs can enhance the quality of healthcare by boosting efficiency and accuracy, compliance with guidelines, and minimizing prescription mistakes if they are correctly implemented (Tajirian et al., 2020). However, as the unintended effects of EHRs grow, the expectation of enhanced patient care through rapid access to patient information and more significant clinical decision-making assistance has not been realized in many healthcare organizations (Tajirian et al., 2020). While physician fatigue significantly influences delivering high-quality healthcare, with HIT technologies like EHRs compounding the problem.

Training should be tailored to the specific training requirements, goals, EHR system used, and organizational climate. Likewise, a project methodology should include an overall aim and SMART (Specific, Measurable, Achievable, Realistic, and Tangible)

training methods to assess the training effectiveness better. Healthcare facilities are

developing strategies to digitize medical records to alleviate the difficulties they or their

patients have while using paper-based medical records (Samadbeik et al., 2020; Shah &

Khan, 2020). Thus, the new technology allows patients' clinical data to be preserved in

EHRs. EHRs are electronic health records that keep a person's complete medical history

and information in a format that can be easily exchanged among healthcare practitioners

or accessed through various connected sites as needed (Shah & Khan, 2020). Melton et

al. (2021) also agreed that EHRs are a must-have in the HIT field. Problems with EHR

data input, more patient participation in EHR data entry, accredited EHRs with enhanced

accessibility, and various administrative requirements that commonly depend on EHRs

are all part of the present EHR ecosystem (Melton et al., 2021). Improving the

architecture of EHR systems with customized functionality was crucial to boost health

professionals' adoption and implementation of EHR (Shah & Khan, 2020). Therefore,

EHRs are necessary to acquire in HIT to enhance administrative requirements.

Many authors have indicated that EHR was valid and effective in enhancing

preservice patients' rights. The EHR has an important and robust influence on enhancing

the protection, effectiveness, and efficiency of treatment with preserving patients'

confidentiality rights (Aldosari et al., 2018). Conversely, the failure to handle records

sharing would negatively impact patient treatment and ultimately make patients lose

confidence in the healthcare service offered. In addition, the medical staff's ability to

understand the system by adopting a more user-friendly interface would raise people's

adoption level. Moreover, social factors of users, upper executives and HIT support, and

system consistency are critical in predicting the approval of nursing staff towards the EHR. In 2011, the Institute of Medicine's study on IT and clinical protection highlighted that designing health IT for safer use was a joint obligation between key players, including sellers' healthcare providers, hospital institutions, health IT authorities, and service providers (Sittig et al., 2017). According to Sittig et al. (2017), EHRs included stakeholders, but they also have incompatible objectives and criteria. Key players have competitive roles in improving EHR protection and must share responsibility for enhancing EHR use (Sittig et al., 2017). Thus, when significant players share ownership, there was a new era of change and creativity in health IT.

During the 2010s, numerous nations have implemented regulations requiring healthcare institutions. According to Tsai et al. (2020), to deploy an incredibly complicated collection of interlinked, frequently externally built software programs that, when combined, form an EHR. Therefore, EHR implementation has good and bad implications for clinical practice, information and data collection, patient care, and economic impact (Tsai et al., 2020). While infrastructure limits, inadequate/inefficient preparation, technical/educational assistance for consumers, and poor technical knowledge and skills. The findings indicated that high-profile challenges were budget shortages, inadequate/inefficient instruction, lack of technical/educational resources for consumers, and poor literacy and technological skills. The researchers did not perform a content audit of the included citation. However, the lack of consistency in EHR practices and comprehensive descriptive details on the study settings were noted.

Many healthcare systems are transitioning to adopting a complete EHR, characterized by implementing electronic clinical information, computerized physician order input, outcomes management, and decision support in most clinical units. The usefulness of EHR has not traditionally been thoroughly assessed. The nationwide cross-sectional study was conducted to distinguish clinicians' viewpoints by investigating how they utilize the data, his or her judgments on the integrity of the systems, and their overall satisfaction with EHR (Krousel-Wood et al., 2018; Tubaishat, 2017). Since doctors are the primary users of the EHR system, their implementation and use of the EHR system would hasten the healthcare industry's current situation (Hossain et al., 2019). Moreover, Technological progress was accelerating at a rate that impacts every aspect of human life, greatly benefiting public health and healthcare delivery (Essuman et al., 2020). As a result, health data becomes critical for strengthening and improving healthcare quality in every region (Essuman et al., 2020). Technological progress was critical and can be tied into every phase of humanity.

The EHR attempts to resolve these concerns. The enablers, such as recruiting, logistics, and work engagement, provide foundations for future development (Gyamfi et al., 2017). Likewise, Awol et al. (2020) noted that leaders use EHRs to do more than modernize the healthcare system; they also promote safety by facilitating conversation and research review. Even though there was much excitement about EHR to improve consistency, continuity, protection, and healthcare productivity, the overall acceptance rate was still insufficient. preparation should tailor to the specific training requirements,

training goals, EHR framework used, and operational context (Samadbeik et al., 2020).

Therefore, EHR use was vital to future developmental engagement.

Cautions in the Application of EHRs

EHRs have been related to an increased paperwork load, which leads to clinical

stress. Over the last ten years, researchers have explored the burden issue and its

implications for physician burnout due to EHRs. Burnout, however, was fundamentally

linked to paperwork load (Moy et al., 2021). There has been a shift in how health data

was recorded due to technological developments (Ganiga et al., 2020). Medical

documents previously kept using numerous patient records have become easier to arrange

and store, allowing medical personnel to work more efficiently (Ganiga et al., 2020). As a

result, the EHR system evolved into a powerful healthcare management platform

designed for developing or growing economies like India. The EHR connects all

participating hospitals' Electronic Medical Records (EMR) over various networks in a

national health system (Ganiga et al., 2020). In addition, EHR allows healthcare

providers to communicate and manage patient records easily.

There was a push to increase data capacity in the healthcare system. Machine

learning analysis of big data provides significant benefits for absorbing and assessing

massive volumes of complex healthcare data (Ngiam & Khor, 2019). However, to

effectively apply machine learning techniques in health care, various constraints must be

addressed, and crucial problems such as clinical implementation and morals in the

healthcare system required attention (Ngiam & Khor, 2019). Compared to traditional

biostatistical approaches, machine learning offers greater flexibility and scalability,

making it suitable for many tasks, such as high-risk patients, diagnosis and classification, and survival predictions (Ngiam & Khor, 2019). Another advantage of machine learning algorithms was their capacity to assess many forms of data and combine them into forecasts for illness risk, diagnosis, prognosis, and suitable therapies.

Although these benefits, implementing machine learning in the healthcare system brings distinct obstacles that necessitate data pre-processing, model training, and system improvement concerning the actual clinical situation. Though ethical issues like medico-legal consequences, clinicians' awareness of machine learning techniques, data privacy, and security are also critical. HIT, like as EHRs, was becoming an increasingly important element of the healthcare environment (Kroth et al., 2019; Ngiam & Khor, 2019). While the adoption of the EHR corresponded with a considerable and worrying increase in physician stress and burnout, this relationship has sparked debate over the extent to which EHRs are tied to the doctor stress and burnout epidemic (Eschenroeder et al., 2021). In addition, technostress was real, but the time it affects medicine was unclear. However, less was known regarding how modifiable features of EHR usage relate to burnout and how these connections differ by medical specialization.

A national study calculated the leading factors of burnout based on the frequency with which each response choice was chosen. According to Eschenroeder et al. (2021), too many bureaucratic responsibilities (55%) and increased digitalization of practice (30%) were two of the most often mentioned solutions. The Findings suggested that professional discontent was exacerbated by poor EHR accessibility, frequent patient call reports, and time-consuming data input. Beyond the typical clinic hours, the length of

time spent on EHRs on non-clinical tasks and paperwork was also linked to physician

burnout (Eschenroeder et al., 2021). While the institutional EHR support assessment has

not been utilized in prior literature, research has shown that organizational IT

enhancements can lower emotional exhaustion. Health professionals have several

concerns regarding the limitations of EHR, such as lack of implementation, but the

software was not to blame for all technological issues (Collier, 2018). Regarding

suboptimal EHR usage, the user was always to blame, especially first-year medical

residents (Collier, 2018). According to the American Medical Association, medical

schools and residency programs are not adequately training trainees to use EHRs. A lack

of experience with these processes prevents first interns from developing essential skills.

Many healthcare organizations forbid EHR use, and interns are commonly refused

access to EHR due to a lack of competence, thus impacting billing and document

accuracy. To realize the full potential of EHR, it was essential to invest in EHR

preparation (Collier, 2018). A tried-and-true training approach that makes the most

available resources was needed to keep costs down. Although there was plenty of data

that hands-on instruction and spaced repetition are highly successful at sustaining

education, there was limited evidence that this was being used to help EHR learning

following initial training (Robinson & Kersey, 2018). Physicians reported that lack of

time was the most significant obstacle to changing certain facets of their profession due

to healthcare reform, practice reforms, and the introduction of EHR programs (Robinson

& Kersey, 2018). The original plan of lowering in-basket workload through EHR training

and job tension through a wellness program developed into a long-term strategy for EHR

advanced training to minimize EHR time by 5 minutes per hour, enhancing improved

EHR skills, and incorporating wellness into doctors' daily practice (Robinson & Kersey,

2018). Therefore, timing was a factor in using EHR programs.

Since 2010, electronic technology has become a significant issue in healthcare.

According to Mollart et al. (2020), electronic technology was becoming increasingly

prevalent in healthcare environments, especially in protecting patient documentation.

When clinicians lack proper EMR preparation, they are more likely to make avoidable

mistakes, such as incomplete, faulty, or absent encounter forms and laboratory

instructions, imaging, and consults. Previous patient history was unlikely to be explored

as it would be too repetitive. Clinicians may waste time reviewing, redoing, or

completing EHR tasks. (Lopez et al., 2018). Training plans and techniques are critical to

the stable introduction of technologies and continued use of EHR programs.

HIT works well with healthcare agencies and practitioners. The advent of HIT has

dramatically transformed how healthcare agencies and practitioners operate (De Leeuw et

al., 2020). However, many healthcare practitioners find it challenging to keep up with the

pressures of HIT and the personal and professional improvements it necessitates (De

Leeuw et al., 2020). Furthermore, a lack of digital literacy and skills prevents healthcare

practitioners from adhering to professional expectations for using HIT and can result in

professional performance issues. It was critical to learn more about the causes and

motives for the technology challenges these experts face and what can be done to address

them (De Leeuw et al., 2020). As a result, as science and technology have progressed,

data research findings have been increasingly extended to different realms (Wang et al.,

2020). Additionally, the data from the EHR system has piqued researchers' interest in the

medical field. The EHR data includes many essential health records, disease evaluation

files, and medical experience, which are necessary resources in the medical field (Wang

et al., 2020). Also, EHRs are growing in the United States, and the technology was

regularly updated (Sieck et al., 2020). Results indicated that doctors must continue to

respond to technology and its constant improvements. A framework for physicians

interested in EHR design and preparation, a focus on the advantages of the EHR,

encouragement from peers, and open engagement about enhancements would improve

their ability to adapt to the EHR (Sieck et al., 2020). As such, EHR was an essential part

of U.S. healthcare protocol.

The EHRs are a key enabler in significant healthcare schemes, however, many

barriers to their use remain. Some of their unforeseen adverse repercussions, such as

degradation of job environments and performance, and high frustration with healthcare

providers, are becoming increasingly problematic (Alami et al., 2020). As a result of

healthcare providers' inability to connect current health problems and patients' medical

histories of diagnosis, medications, adverse effects, and surgical risk analysis, patients are

vulnerable to medical mistakes (Enaizan et al., 2020). When the number of hospitals and

patients increases, so does the problem: medication error, lack of training, improper

system use, and workflow incompatibility. As a result, the standard approach becomes

inadequate and unreliable (Enaizan et al., 2020). HIT adoption has several challenges,

such as misalignment of investments and benefits, workflow disturbances, and privacy

and confidentiality issues (Giunti et al., 2019). This system continues to face challenges, which can lead to some delays in transitioning patients' documents.

The EHRs and other health management applications are crucial in changing healthcare delivery. Wong et al. (2020) indicated that the healthcare system delivery must have consistency and effectiveness. EHRs have been introduced and applied in Western countries during the last century. More widespread use of EHRs has been recognized as successfully lowering medical mistakes and expenses, optimizing medical effectiveness, and developing better healthcare delivery (Wong et al., 2020). On the other hand, inadequate EHR preparation has long been a problem in medical education in Canada and the United States (Collier, 2018). Just 44% of internal medicine services in Canadian and American clinical facilities had policies on trainees using EHRs to log clinical experiences, according to a 2009 poll (Collier, 2018). In the survey, 52% of respondents said their services forbade trainees from obtaining EHRs, citing reservations regarding billing and notice accuracy as the main reasons (Collier, 2018). The techniques also included preparation and system maintenance and post-implementation strategies and specifics of HIT implementation to reduce disturbance while growing understanding and trust among implementation teams and end-users (Yusif et al., 2020). Developing a valuable technique for the growing healthcare industry.

EHR (or HIT) Quality Assurance

EHRs encourage HIT practices that increase healthcare quality and service safety. EHRs improve compliance with clinical standards, reduce prescription mistakes, and reduce adverse drug responses but have no impact on mortality (Lin et al., 2020).

Although the complete deployment of EHRs enhances healthcare quality, a recent

population-based study found mixed findings and no correlation between EHR adoption

and improvements in inpatient mortality, readmissions, or patient safety metrics after

controlling for patient and facility factors (Lin et al., 2020). However, numerous barriers

to healthcare providers' utilization remain. Some unanticipated negative consequences

are becoming better documented, including degradation of work standards and quality

and increased provider discontent (Alami et al., 2020). Furthermore, healthcare providers

realize the magnitude of the design issue in healthcare. Clinical processes differ

significantly between and within specialties and contexts, making it challenging to

develop effective methods (Rudin et al., 2020). End-users must be heavily involved in the

design process to create useable goods, which must be done to a much greater level.

Suppliers should interact directly with customers and do supporting research (Rudin et

al., 2020). Moreover, to ensure that knowledge was maximized and that these efforts are

worth the investment, researchers must investigate user and system demands, characterize

processes, and rigorously create and evaluate interventions to fully understand healthcare

providers' strengths and limits.

The EHRs are essential for increasing healthcare quality and patient safety. An

EHR can help healthcare practitioners and patients achieve better patient care by

delivering various clinical benefits (Alanazi, 2020). According to Alanazi (2020), these

systems are becoming more widely used in healthcare organizations worldwide.

However, additional evidence suggests that different circumstances might stymie or

encourage system adoption and utilization (Alanazi, 2020) and give the best solution to

develop in various crucial scenarios. These might include qualitative and quantitative

evaluations of the intervention's effectiveness in multiple settings, training techniques,

leadership, and how the resources may influence staff duties and duties (Rudin et al.,

2020). Therefore, physicians typically take longer to enter the patient's record, limiting

their ability to disrupt the process of the patient's treatment by stopping the consultation

in the middle (Dutta & Hwang, 2020). Therefore, physicians frequently complain about

the time it takes to input a patient's record. This obstacle might also be due to the EHR

system's complexity, a lack of technical training and support, and the time necessary to

learn a new system (Dutta & Hwang, 2020). Physicians' resources are limited and they

cannot devote time to becoming acquainted with the EHR system; therefore, the business

organization must coordinate adequate training for physicians and empower them to

become acquainted with the EHR system. In turn, it enhances physicians' willingness to

embrace the EHR system.

Accessibility of EHRs, or the amount to which the technology can be an essential

factor in determining, reliably, and consistently by clinical users, remains a vital

problem-oriented health record; the issue checklist was essential. Due to the lack of end-

user education and erroneous material on fundamental terminologies (Klappe et al.,

2020), current problem lists remain insufficient, resulting in changes to diagnosis code

definitions and the usage of public remarks restricting data reuse. Uncertainty over who

was responsible for updating the issue list and a lack of recognized advantages were

obstacles (Klappe et al., 2020). All facilitators were the policy redesign, enhanced

training to new vision, and productive feedback and supervision. Therefore, sharing

advantages related to the healthcare system, such as presenting the material, timely discharge or reference letters, and data reuse, was the most significant way to inspire people.

Additionally, the fundamental terminology information should be updated, and the issue list in the EHR system should be appropriately displayed. As a result, gathering and successfully utilizing clinical information and expertise to provide a high-quality, safe, and long-lasting healthcare service was universally regarded as critical. Information from EHR is crucial to public-health policy decision-making (Fennelly et al., 2020). An EHR offers a computer-processable persistent timeline of knowledge on an individual's health state from several practitioners and specialties and real-time given consent to healthcare information (Fennelly et al., 2020). Using EHR would enhance case classifications and illness classifications, contributing to the emergence of rigorous risk adjustment algorithms (Lee et al., 2020), which have allowed individualized outcome predictions/comparisons, one of the basic concepts of precision medicine (Lee et al., 2020). In addition, the organizational and technical issues with EHR data are numerous. These obstacles, however, are manageable and worthwhile to overcome, and electronic health records have led to advanced analytics such as machine learning and artificial intelligence processing.

Practical approaches for sustaining healthcare practitioners are required. Failing to achieve training can sabotage an organization's Health Information Systems (HIS) implementation and long-term viability (Jayakumar et al., 2020). Besides, HISs has been advocated as one component of a multi-pronged organizational strategy to improve

treatment quality, boost patient safety, and lower healthcare costs. Thus, HIS was a system that integrates health data collection, analysis, reporting, and usage to influence policymakers and improve the efficacy and efficiency of health services. Furthermore, a HIS system would enable the interchange of information across the healthcare ecosystem among many authorized custodians in support of medical capacity and treatment cost reduction (Jayakumar et al., 2020). Staff and care providers may face difficulties implementing HIS since they are inexperienced with the system's capabilities and functions, limiting their ability to utilize HIS successfully in their workplace.

Likewise, a growing and understudied hurdle was the absence of HIT training among healthcare professionals as a workforce. Despite the fast implementation of digital HISs around the world and the skills necessary to efficiently use HISs in the procedure, it was essential to support and instruct healthcare professionals at all levels, throughout all areas of the health system, and as soon as possible after implementation, on how to use the HIS process to enhance clinical practice (Giunti et al., 2019; Jayakumar et al., 2020). To properly allow learners to use new technology, it was not enough to essentially educate the framework (Jayakumar et al., 2020). Considering the advancements in HISs, healthcare institutions should be provided with the appropriate methods of dealing with the turbulence that technology innovations entail, as well as research into all levels of teaching that prepare healthcare practitioners, workgroups, and the company for the rapidly evolving nature of clinical environments.

Gaps in Implementation

Most healthcare organizations are not well-equipped to communicate massive volumes of medical imagery. Although innovation was feasible, medical information was constantly held in various layers, inefficient for developing medical AI widely used in clinical practices (Willemink et al., 2020). Moreover, merely gaining access to vast amounts of picture data was inadequate to address these flaws. Appropriate filtering, evaluation, identification, and clinical implications are required for high-impact, clinically useful AI algorithms (Willemink et al., 2020). The researchers outline a procedure for identifying, filtering, and distributing medical picture data for AI algorithm development, followed by an in-depth examination of various techniques for responsible information sharing and applications in AI algorithm development for maximum therapeutic benefit (Willemink et al., 2020). To the best of the researchers' awareness, this was the first publication that provides an overview of preparing medical imaging data for machine learning (Willemink et al., 2020). As a result, an electronic health record (EHR) was a digital record of a patient's health that can be effortlessly exchanged across healthcare providers, allowing it to track a patient's progress throughout the healthcare landscape (Mudaris, 2021). An EHR was a real-time patient health record that includes evidence-based decision-support tools to help practitioners make decisions.

The EHR was a computerized system that may update practitioners' everyday workflow by validating health and clinical information sent to other clinicians, physicians, pharmacies, and healthcare institutions for patient care. Prescription background, billing, test findings, clinical outcomes, and disease monitoring are all

examples of data stored in EHR (Pessima, 2020). EHRs have attracted prominence as a crucial basis in the digitization of the health business, with significant gains such as assuring consistency of treatment, improved clinical decision-making, and increased efficiency (Mudaris, 2021). EHRs function as the platform for increased digital healthcare technology adoption, with many nations relying on an existing EHR system to effectively implement telehealth and telemedicine projects (Mudaris, 2021). Prescription background, billing, test findings, clinical outcomes, and disease monitoring are all examples of data stored in EHR (Pessima, 2020). EHRs have attracted prominence as a crucial basis in the digitization of the health business, with significant gains such as assuring consistency of treatment, improved clinical decision-making, and increased efficiency (Mudaris, 2021). EHRs function as the platform for increased digital healthcare technology adoption, with many nations depending on an existing EHR system that can significantly implement telehealth and telemedicine projects (Mudaris, 2021). As a result, healthcare transformation and EHR/HIT enable the exchange of data with other healthcare professionals for timely and informed decisions to enhance health and equal access (Pessima, 2020). Clinician acceptance of EHR in the next 25 years depends on education, training, and availability increase, which provide decision-makers, healthcare professionals, and clinicians (Pessima, 2020). With HIT alternatives such as artificial intelligence (AI), telemedicine offers an avenue for clinicians and unorthodox face-to-face methods that are most suitable and efficient in numerous clinical settings to remove obstacles (Pessima, 2020). For example, opportunities to enhance healthcare equity, efficiency, and effectiveness.

As health technologies and networks become more complex and costly, the technological gap might increase, dividing people with easy accessibility and health IT from those without due to the expense, education, or governmental constraints. Even though some findings suggest that particular HITs interact with other patients, telemedicine, which connects patients to providers, may help reduce urban-rural health disparities. It is critical for IS researchers and healthcare professionals to comprehend this gap from the perspective of health-related researchers and practitioners and the circumstances that may exacerbate or alleviate it (Bardhan et al., 2020). The Internet of Things (IoT), devices, devices, social networking sites, mobile applications, and genetics, as well as general use of EHR, are transforming the accuracy, quantity, speed, and diversity of healthcare and well-being information obtained for analysis (Bardhan et al., 2020). Since 2013, HIT has progressed from hospital-based EHR to patient-centric mobile devices and assistive technologies. Information technology research methods have advanced from statistical approaches to innovative computational methods such as AI-based machine learning (Bardhan et al., 2020). As a result, EHR has emerged as a 21st-century innovation trend in underdeveloped nations (Moniz, 2021). This technological solution delivers accurate data accessibility, minimizes paper-based documentation, gives access to patients' past health status and quick follow-up, lowers clinical status duplication, and facilitates accessible data exchange across primary healthcare practitioners (Moniz, 2021). The majority observed the following benefits from the EHR: reduced paper-based documentation enabled access to previously recorded patient data, offered actual access to data, and limited health duplicate data (Moniz, 2021). However,

as described by a medical practitioner, impediments to the eHealth system persist, such as the need for periodic revisions to technical progress, web browser interoperability, connection, and the expense of implementing it (Moniz, 2021). Nevertheless, physicians in healthcare settings were pleased with the digital system.

The eHealth was beneficial, suitable, and necessary for their job since it increased patient safety, improved treatment quality, and allowed for more significant interaction among healthcare professionals. There were statistically relevant variations in ages regarding benefits, ability to use the computer in terms of barriers, and place using the laptop in terms of satisfaction with EHR utilization (Moniz, 2021). In addition, the advantage experienced while using the system and lowering the barrier affected EHR satisfaction. Strong commitment, monetary incentives, user-friendly application, increased network connection reliability, and a positive outlook toward EHR are critical for effective deployment (Moniz, 2021). The use of EHR has increased recently, and it was thought that the acceptance of Information Technology (IT) adopted in other circumstances may also speed up competent deployment in healthcare environments (Septiani & Mairani, 2021). In several nations covered in this analysis, there are benefits and cons of using EHR among health professionals in various healthcare settings (Septiani & Mairani, 2021). Also, some healthcare professionals have had favorable experiences with EHR, stating that its adoption may increase clinician participation, enhance clinician engagement, and reduce burden. Conversely, others believe EHR adoption was unproductive due to the systems' failure to fulfill users' needs, inadequate connection with current processes, insufficient IT skills among users, and limited EHR

resources and training (Septiani & Mairani, 2021). As a result, it was critical to improving HR systems' architecture with specific functions to promote EHR development and adoption by healthcare professionals as end-users.

Medical mistakes are a critical public health issue in the United States. Rodziewicz et al., (2021) indicated that medical mistakes could be a primary cause of morbidity and mortality. It was challenging to find a continuous cause of mistakes and, even if one was established, give a consistent, realistic option that reduces the likelihood of a repeat occurrence (Rodziewicz et al., 2021). Patient safety may be enhanced by noticing unfavorable occurrences, learning from them, and acting to eliminate them (Rodziewicz, 2021). However, due to actual or perceived failures, healthcare professionals endure substantial psychological consequences such as rage, remorse, incompetence, sadness, and suicide. The possibility of legal proceedings may exacerbate these thoughts (Rodziewicz et al., 2021). Clinical trust may be harmed because of this.

Although their mission was not to harm, clinicians associate mistakes with incompetence, a loss of public confidence, and injuring patients. Rodziewicz et al., (2021) noted that errors might occur due to information technology. The most prevalent was inadvertently documenting information or requesting the incorrect patient (Rodziewicz et al., 2021). While EHR systems give more thoroughly documented information, they may also make it easier to chart information on the wrong patient (Rodziewicz et al., 2021). As a result, during the last century, healthcare in the United States has witnessed a tremendous transformation from paper to EHR systems (Graber et al., 2019). More than 75 percent of medical practices and 92 percent of qualifying

hospitals have received incentives to pursue certified EHR systems, thanks mainly to

targets established by the Federal Health IT Strategic Plan and financial incentives

granted under the ARRA/HITECH legislation in 2009 (Graber et al., 2019). There was

universal agreement that the full promise of health information technology (health IT) has

not yet been achieved (Graber et al., 2019). For examples of unintended effects of health

IT that hinder healthcare coverage efficiency or health usage, IT was of particular

concern (Graber et al., 2019). Over the last decade, EHRs have become widely used by

inpatients and outpatients (Rodziewicz, 2021). EHR systems consist of a digital patient

record and often incorporate computerized physician order entry (CPOE), laboratory and

diagnostic data, and medical equipment interfaces (Rodziewicz, 2021). In an ideal world,

the system would generate continuous, readable, complete, and long-lasting

documentation of a patient's medical history and treatment (Rodziewicz, 2021); however,

the transfer to this new method of capturing and transmitting medical information has

created new potential for inaccuracy and other unintended effects, posing safety issues.

Healthcare accuracy seeks to improve patient care in the United States. Accuracy

healthcare strives to enhance care delivery through accurate and tailored prediction,

prevention, and intervention. EHR system adoption has skyrocketed in recent years, with

hospitals in the United States and the United Kingdom exceeding 84% and 94%,

respectively. (Li et al., 2020). As a result, a national medical organization's EHR systems

are now likely to collect data from millions of people over several years (Li et al., 2020).

Therefore, every EHR may connect data from multiple sources and incorporate concepts,

including diagnoses, treatments, lab tests, clinical narratives, and more.

Any country in the world views large-scale framework HIT programming to address existing healthcare difficulties. For example, the Health Information Technology for Economic and Clinical Health (HITECH) Act of the United States (US) federal government encourages the use of EHRs as part of a projected $30 billion national stimulus package (Cresswell et al., 2020). Sociotechnical techniques can aid in conceptualizing the interplay among people, technology, and work processes (Cresswell et al., 2020). They can contribute to a more sophisticated understanding of the implementation and adoption landscape than classic positivist perspectives (Cresswell et al., 2020). Innovations in medical procedures and diagnosis, care delivery patterns, and vendor offers all impact available technology (Cresswell et al., 2020). Because the market may not have been capable of adapting promptly to changes in policy approaches, assessments and regulations must take these characteristics into account (Cresswell et al., 2020). Therefore, the role that vendor-user interactions play in the changing market, the formation and empowerment of user groups, the procurement frameworks, and the diversity of needs are examined.

Organizational innovativeness has been identified as a critical success factor. The increasing rivalry in the healthcare and non-healthcare industries was more significant today than ever (Parthasarathy et al., 2021). Innovation is described as the deliberate introduction and implementation within a role, group, or presentation of ideas, methods, products, or procedures that are novel to the concerned authority of acceptance and are intended to benefit the person, group, or society significantly (Parthasarathy et al., 2021). Executing a new product or service concept or introducing new elements in an

organization's manufacturing process or service operation was referred to as

technological innovation (Parthasarathy et al., 2021). Innovation capability was the

ability to consistently reshape thoughts and insights into new products, processes, and

systems for the benefit of the company and its stakeholders. This higher-order capability

successfully enables the molding and management of multiple capabilities to stimulate

innovation (Parthasarathy et al., 2021). An organization's innovative capacity entails

bringing a new product or service to market and successfully implementing it

(Parthasarathy et al., 2021). Scholars define it as the capacity to mobilize workers and the

organization's knowledge from previous innovation implementation experiences to

develop and utilize new information to execute a new product or service.

A company that can improve its organization's education and integrates current

and recent information would successfully generate and execute product and process

improvements. The EHR can increase patients' and healthcare professionals'

comprehension or awareness of healthcare knowledge, facilitating collaboration among

multiple essential stakeholders to improve healthcare quality (Johnson, 2020;

Parthasarathy et al., 2021). The technology was also predicted to help global health

communities by improving health outcomes, reducing medical errors, and lowering

healthcare costs (Johnson, 2020). Thus, these advantages cannot be achieved unless

critical stakeholders and technology users are have embraced, implemented, and used the

EHR.

The critical task of scaling HIT breakthroughs; was that the innovative technology

and procedures are expanded from restricted, localized, practical uses to larger

deployments to enhance healthcare and healthcare system effectiveness. While scaling

can be viewed as a stage in the larger concept of innovation diffusion. Some particularly

intriguing characteristics of healthcare contexts and digital health technologies may allow

us to explore the transition from smaller-scale exploration to larger-scale exploitation

(Davidson et al., 2018). Internal innovation can result from clinical practitioners' efforts

to facilitate and enhance healthcare service delivery, often in a local environment

(Davidson et al., 2018). Surprisingly, such innovations frequently occur despite

physicians' complicated settings, such as a lack of time and resources, including funds,

training, skills, and organizational support (Davidson et al., 2018). The development of

innovations in such circumstances does not ensure that scaling has been successful or

even tried outside of the local setting (Davidson et al., 2018). Surprisingly, such

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ensure that scaling would be successful or even tried outside of the local setting

(Davidson et al., 2018). Healthcare institutions have acknowledged these difficulties and,

where resources are available, frequently support the scaling of innovation.

Additional studies on the problems and methods of scaling innovation might

considerably improve the effectiveness of scaling initiatives. When appropriately planned

techniques are not employed, EHR system installations fail rapidly (Davidson et al.,

2018; Loerch, 2020). These implementation errors impact the primary functions of

healthcare professionals and practitioners due to a lack of documentation processes,

which lowers the quality of patient care (Loerch, 2020). A fundamental suggestion was that information technology system engineers create and apply system development lifecycle techniques that increase technology acceptance through standardized, organized implementation methods (Loerch, 2020). Moreover, the possibility for enhanced patient care and cost savings for patients due to the automation of healthcare charting processes was one of the implications for positive social change.

The healthcare sector has experienced a technological transformation since 2008. In a 2009 study of over 3000 hospitals in the United States, less than one in ten had an EHR (Ray et al., 2019). In addition, the Federal government enacted the Health Information Technology Economic and Clinical Health Act the same year. The Act called for the adoption and meaningful use of health information technology to enhance communication between providers, clinical condition monitoring, and clinical quality measurements (Ray et al., 2019). In addition, by 2015, 96% of nonfederal acute care hospitals and 86% of office-based physicians had used some EHR in their practices.

Notwithstanding the Act's aspirations for HIT technologies to improve patient care and data flow, several obstacles persist. In an era where technology-enabled exchange of information and connections has become commonplace in other businesses and everyday life, HIT lags (Ray et al., 2019). The healthcare sector was fluid, and the technology solutions that enable it must evolve as the industry progresses (Ray et al., 2019). Technology cannot be seen as a one-time expense. Implementing a conceptual framework was a step in the life cycle, not a goal (Ray et al., 2019). Constantly monitor the system's usefulness and performance and adapt as users' requirements evolve (Ray et

al., 2019). IT advancements have permitted transformations of professions, personnel, and health industry organizations that are not exclusive to the healthcare industry (Davidson et al., 2018). Nevertheless, healthcare institutions bring significant practical and theoretical problems, most notably ethical standards about serving the people and regulatory scrutiny of how healthcare resources are appropriated and deployed, many of which are publicly financed or subsidized.

The critical task of scaling HIT breakthroughs was to expand innovative technology and procedures from restricted, localized, practical uses to larger deployments to enhance healthcare and healthcare system effectiveness. While scaling can be viewed as a stage in the larger concept of innovation diffusion. Some particularly intriguing characteristics of healthcare contexts and digital health technologies may allow us to explore the transition from smaller-scale exploration to larger-scale exploitation (Davidson et al., 2018). Internal innovation can result from clinical practitioners' efforts to facilitate and enhance healthcare service delivery, often in a local environment (Davidson et al., 2018). Surprisingly, such innovations frequently occur despite physicians' complicated settings, such as a lack of time and resources, such as funds, training, skills, and organizational support (Davidson et al., 2018). The development of innovations in such circumstances does not ensure that scaling has been successful or even tried outside of the local setting (Davidson et al., 2018). Surprisingly, such innovations frequently occur despite physicians' complicated environments, such as a lack of time and resources, such as funds, training, skills, and organizational support (Davidson et al., 2018). The development of innovations in such circumstances does not

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possibility for enhanced patient care and cost savings for patients due to the automation

of healthcare charting processes was one of the implications for positive social change.

Information analyzed using the model, transparency, data integrity, audit,

information authenticity, control systems, trust, confidentiality, and security are

significant concerns for changing healthcare database management systems (Yaqoob et

al., 2021). Furthermore, a significant number of present healthcare systems used for data

management are centralized, which poses the danger of a single-point failure in the event

of a natural catastrophe. *Blockchain* was a new and disrupting disruptive innovation that

can alter, restructure, and influence the way data was handled drastically in the healthcare

industry (Yaqoob et al., 2021). Analyzing the information and processing appropriate

conclusions are critical in today's significant data era (Alizadehsani et al., 2021).

Methods, machine learning algorithms, and probability theory have been widely

employed in various disciplines (Alizadehsani et al., 2021). Obtaining and assessing

uncertainty in data and models was a key but underutilized feature (Alizadehsai et al.,

2021). The proper measurement of uncertainty contributes to essential information for

obtaining an appropriate diagnosis. Machine learning was commonly used in academia

and business to analyze large and complicated datasets to identify meaningful

information and reach definitive conclusions (Alizadehsani et al., 2021). And it was

commonly recognized that the effectiveness of machine learning methods was closely

related not only to the methods used but also to the type of information.

In recent years, the Internet of Medical Things (IoMT) has become widely used in

several parts of healthcare systems. With the growing demands of IoT, a massive amount

of sensory data was collected from various IoT devices (Algaralleh et al., 2021).

Artificially intelligent (AI) models play a significant part in investigating created data to

attain scalability and correct examination in a real-time context (Algaralleh et al., 2021).

However, the properties of IoMT create design issues, such as confidentiality and

protection, resource constraints, and insufficient training data (Algaralleh et al., 2021).

Simultaneously, blockchain, an emerging technology, has provided a decentralized

architecture that provides secure communication and resources to various IoT ecosystem

nodes and was encouraged to remove centralized administration and its associated issues

(Algaralleh et al., 2021). As a result, healthcare systems may require modern technology

to improve patient-centered healthcare coverage (Tebeje & Klein, 2021). Yet, telehealth and EHRs are critical elements of such a virtualized hospital.

What was the route ahead for EHR, which has become a concern for professionals' well-being? Evidence was mounting that the EHR was placing an unbearable load on practitioners and may deteriorate rather than improve clinical treatment (Melnick et al., 2021). The electronic health record era was still in its early stages (Melnick et al., 2021). But its faults are well-acknowledged but reliable; quantitative vendor performance indicators are absent.

Scientifically valid EHR use metrics are required to encourage significant improvement in EHR development, implementation, and regulation and inspire advances in clinical workflows and teamwork. In addition, to be scientifically valid, a measure's results must be exact, trustworthy, valid, and sufficiently risk-adjusted (Melnick et al., 2021). Such metrics may be used to compare suppliers and occurrences of the same product, uncover variance and best practices across physicians, enhance student and resident training, and drive improvement activities (Melnick et al., 2021). EHR use data, for example, might identify resources required for specific activities, task transitioning between activities, the quantity and frequencies of clicks of the mouse per task, and the impact of collaboration on total clinician EHR time each day, to mention a few examples (Melnick et al., 2021). Currently, such technologies are incapable of assessing what has become the essential platform for clinical care delivery.

Clinical risk prediction algorithms can affect clinical decision-making and improve patient care quality. However, creating an effective model was a time-

consuming procedure fraught with hazards such as insufficient training data, bias, and the inability to fulfill a therapeutic purpose (Sharma et al., 2021). Evaluating and adjusting a framework across diverse patient groups before it was acceptable for clinical usage presents additional obstacles (Sharma et al., 2021). Despite a vast body of work on creating risky prediction models, there was little evidence of clinically effective adoption and influence on care outcomes (Sharma et al., 2021). Models for risk prediction are usually built using routinely collected clinical data, which was becoming more accessible thanks to EHRs (Sharma et al., 2021). As a result, the variables chosen and evaluated during model construction are those found in electronic data sources, such as population, diagnostic results, health history, and medication history. Some models thoroughly evaluated and achieved international acclaim were turned into online tools and made available via web interfaces or mobile applications (Sharma et al., 2021). The effectiveness of risk prediction methods have been contingent on the interoperability of tools inside these systems as healthcare practitioners increasingly move to unified EHRs.

Clinicians can employ risk prediction tools applicable to their practices via the regional EHR and assign a risk rating when fields are filled with acceptable data from inside the system, potentially lowering usability barriers. This intuitively easy approach would usher in a paradigm change in the actual usage of such technologies, resulting in patient benefit (Sharma et al., 2021). Risks can be graphically shown over time to demonstrate the impact of risk-reduction therapy and ensure effectiveness (Sharma et al., 2021). Therefore, it has also influenced future academic studies analyzing the efficacy of these tools and their impact on clinical outcomes by improving accessibility in this way.

Currently, there was little study on the effectiveness of risk prediction systems as independent interfaces or within EHRs. In industries other than healthcare, user experience was an essential aspect of successful product development, and a systematic technique for assessment has been created (Sharma et al., 2021). Recognizing this as part of the model-building process was critical to getting the most value from achieving the future (Sharma et al., 2021). The non-standardized classification of health data between EHR providers was a technical difficulty (Sharma et al., 2021), which means that, even if a risk prediction model was released as separate software incorporated, mismatched clinical terminology may limit its use (Sharma et al., 2021). The early involvement of EHR suppliers in implementing risk prediction models and industry-wide alignment have reduce hurdles to deployment and future scale-up of practical innovations.

Repeatable measures are essential to track performance and improve it. The profession must use valid and reliable tests to demonstrate EHR usefulness in clinical settings (Melnick et al., 2021). The findings can help establish responsibility for how this technology was created and executed, suggest particular areas for improvement, and aid in assessing new tactics (Melnick et al., 2021). CMS's quality metrics offer reliable, reliable, and meaningful comparisons of care given within and across groups to assess, ensure and enhance care quality after a comprehensive development, validation, and implementation (Melnick et al., 2021). Quality improvement and reporting have improved care transparency and consistency during the last 30 years, with pipelines for performance accountability (Melnick et al., 2021). The EHR can be harmful and burdensome (Melnick et al., 2021). EHR usage metrics that are reliable, medically

essential, scientifically sound, transparent, and viable for implementation must be created

to maximize EHR design, implementation, and regulation. These steps are urgently

required (Melnick et al., 2021). Studies that identified variance in practice and gaps in

ineffectiveness in clinical quality opened the path for initiatives to enhance treatment and

consequences (Melnick et al., 2021). Quality was trapped in an age of unconscious

review, with no systemic methods to change due to a lack of the ability to establish

objectives and assess actions (Melnick et al., 2021). Measures alone are insufficient for

improvement, but effective measures play a critical role in supporting and rewarding

higher performance.

Transition

A qualitative case study may expose techniques for reducing medical mistakes.

The background of the topic and the specific business challenge are given in this section.

The purpose statement, nature of the investigation, and conceptual framework are all

included. In addition, the current study's research topic, operational definitions,

assumptions, restrictions, and study delimitations have all been defined. The study of

academic and professional literature was a compilation of the most up-to-date data about

EHRs. The literature review covers various viewpoints and methods for educating

healthcare professionals on properly using healthcare applications like EHR. The

research approach and techniques are also provided in Section 2, which supports the

methodology while covering the researcher's role, participants selection, and ethical

issues. Section 2 summarizes the research strategy for gathering, analyzing, and

presenting results. Section 3, which includes recommendations for action and areas for

future study, explores the findings and discussion of professional practice applications.

Section 2: The Project

In this qualitative case study, I explored strategies for medical practitioners lacking training using EHR. The target population for this study consisted of medical practitioners. The implications for social change are improved patient care, proper use of technology inputting patient information, and fewer medical recorder errors.

Purpose Statement

The purpose of this qualitative multiple-case study was to explore the HIT and EHR strategies that some medical practitioners use to ensure the accuracy of medical records to improve hospital performance and patient care. The target population included at least 4 medical practitioners from 4 medical facilities, who have successfully used and implemented HIT and EHR strategies that improved the accuracy of medical records. Implications for social change include efficient use of medical practitioner time, which can serve a greater population of patients, and improve patient care

Role of the Researcher

The scientific community highlights the importance of research integrity (RI) because it is the cornerstone for advancing reliable knowledge and scientific activity (Ščepanović et al., 2021). RI is an intrinsic component of researchers' moral imperative to be truthful and honest in the scientific system (Ščepanović et al., 2021). Researchers must remain ethical by protecting the participants' rights and dignity while minimizing the risk of harm (Yin, 2018). Per *The Belmont Report* (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979), I treated participants with respect and in an ethical manner, protecting the participants' identities. I completed

the National Institutes of Health (NIH) Office of Extramural Research Protecting Human

Research Participants Course to further affirm ethical research commitment. Yin (2018)

indicated that bias can occur intentionally and unintentionally. Eliminating all biases is

impossible for researchers so using strategies to reduce potential bias was essential in

research. I used member checking to mitigate bias. During member checking, each

participant received a written draft of my interview, providing each interviewee an

opportunity to verify if I accurately captured the respective participant's responses to the

interview questions. Member checking also fosters the relationship between the

researcher and the participants by enhancing rapport and credibility (Yin, 2018). The

member-checking process provides an opportunity to improve the reliability of the

research.

After gaining institutional review board (IRB) approval, I gathered organizational

documentation and conducted interviews for this case study. Yin (2018) stated that case

study conclusions based on various data sources are more likely to be convincing and

trustworthy. An interview protocol is a document containing the interview questions and

any preceding and ending measures to ensure that the interviews move well (Ščepanović

et al., 2021). Researchers should follow the best practices and guidelines set out by

research performance organizations (RPOs) and research finance organizations (RFOs;

Ščepanović et al., 2021). Member verification improves credibility of the collection

procedure. I conducted interviews and member checks with participants to ensure the

study's findings. I remained objective throughout my investigation and did not allow my

prejudice to influence the results. I was candid and forthright about my interactions with the topic and research with my study participants.

Another role of the researcher is to mitigate bias. The researcher can avoid study bias by being aware of personal preconceptions and associated ethical considerations (Nigar, 2020). I mitigated bias through professional discretion, interview protocol, member checking, triangulation of the data, and ensuring data saturation. The researcher should ensure the investigation's neutrality (see Nigar, 2020). Nigar (2020) also stated that the researcher can avoid study bias by being aware of personal preconceptions and associated ethical considerations while maintaining an impartial viewpoint was crucial for advancing research. I established an interview protocol to collect data to enhance reliability. An interview protocol is a document outlining standardized processes used to introduce the study to participants, interview and store data, and follow up with member checking to ensure the accuracy of the interview process (Yin, 2018). I used an interview protocol to ensure that I asked participants the same questions systematically to improve data quality. I treated each participant in the same manner, asked the interview questions in the same order, recorded the responses, and conducted member checking to accurately describe each participant's experience. In pursuing this doctoral study, I upheld the policies and procedures for ethical research of Walden University's IRB. I did not make any prior contact with or attempt to select participants until approval from IRB.

Participants

Participants in qualitative research studies are selected based on criteria established to ensure the attributes of each participant contribute to answering the central

research question of the study (Yin, 2018). Participants in this study were healthcare professionals who applied techniques for minimizing information technology disparities in healthcare and were employed full-time at a healthcare institution. Selected participants are those who can best inform the research questions and enhance their understanding of the topic under study (Moser & Korstjens, 2018). At least 4 targeted participants have thus be chosen based on their considerable EHR work experience.

The eligibility requirements for participating in the study included experience using EHR.

Participants were required to meet specific criteria to be eligible for participation in this doctoral study. The criteria included: (a) at least 5 years of experience in the healthcare field, and (b) at least 3 years managerial experience in the healthcare field. According to Yin (2018), having more than two examples or participants increases the research's rigor and reliability. In order to acquire accessibility to the participants, I contacted an old colleague at the healthcare center who assisted me in identifying qualified people using snowball sampling. This technique is also often referred to as network sampling (Renjith et al., 2021). The sampling begins with a few initial volunteers, on whom the researcher depends for locating further study participants. It is best used when the researcher seeks to investigate a stigmatized group or when finding volunteers was likely to be challenging using conventional methods (Renjith et al., 2021). Close coworkers, acquaintances, and relatives have been ineligible participants to minimize personal prejudice and conflict of interest. I obtained informed consent from the eligible participants to confirm their participation in the study. In addition, establishing trust

makes participants feel more at ease throughout the interview, increasing the possibility that they have answered the interview questions honestly.

I met with each participant in person or over the phone to explain my aim for the study and address any questions the participants may have had. Participants were informed about the research timeline, the suggested nature of their engagement, and the anticipated practical consequences of reducing EHR medical mistakes. Consenting participants were required to sign an informed consent form. To ensure that participants felt at ease during the procedure, I stated the primary purpose of my study prior to starting the interviews. Furthermore, I addressed their engagement's nature and scope and communicate and respond to any queries or concerns. All interviews began with a time of contact in which I told the interviewee what to anticipate and the purpose of the interview (see Crane et al., 2021); it was vital to build trust with the participants throughout the study. I worked hard to establish and sustain connections by fostering a trusting relationship.

Research Method and Design

Research Method

Researchers might use quantitative, qualitative, or mixed methodologies when performing a phenomenon study. A qualitative technique is more suited to social studies than a quantitative research method (Nigar, 2020). The researcher may use a qualitative interpretive approach to learn how individuals experience and participate in their culture and society and the value it holds for them (Nigar, 2020).

I used the qualitative technique for this study because my goal was to investigate phenomena without prior knowledge. The qualitative study process may reveal new and innovative ideas because qualitative studies can yield rich insights that clarify fundamental processes and mechanisms (Bouncken et al., 2021). Qualitative researchers examine how individuals understand their encounters, build their perspectives, develop their surroundings, and what significance they attach to their perceptions (Wa-Mbaleka, 2017).

Research Design

In this qualitative case study, I gathered data about the perspectives of healthcare providers. . Qualitative research methods may produce rich and extensive data that can explain and gain insights into the complexities of human interaction and decision-making (Kelly et al., 2021). Qualitative research methods produce hypotheses and answer how and why questions.

In contrast, quantitative research methods are typically geared to test a theory and answer how much or how frequently inquiries are. Because qualitative research aims to elicit views and understand human behavior, it was necessarily subjective (Kelly et al., 2021). The researchers and participants co-create the data (Kelly et al., 2021). Theory can be used to guide the study's design and methodology (Kelly et al., 2021). Thus, researchers may structure their study using a unique qualitative technique, or they may not define a specific methodology but still include processes found in various methods.

Population and Sampling

The study's target group was at least 4 medical experts from Florida or Georgia who have worked with EHR. Sampling techniques should be chosen to produce data compatible with the scientific approach (Moser & Korstjens, 2018). The sample size was determined by data saturation, variable for each research (Moser & Korstjens, 2018). The most popular data gathering approaches are participant observation, in-depth interviews, and focus group discussions (Moser & Korstjens, 2018). The following are the qualifying criteria for study participants in this study: (a) be a health care doctor or head nurse, (b) utilized techniques to reduce information technology barriers using EHR, (c) be employed at a health care organization as a full-time employee.

The study's population sample aims to investigate the HIT and EHR tactics used by some medical practitioners to ensure the integrity of medical records in enhancing the quality of healthcare and patient care. Researchers aim to comprehend live, observable events in a specific setting with carefully chosen individuals rather than generalize from the sample to the community (Johnson et al., 2020). As a result, in qualitative research, the sampling approach was carefully selected to include the most relevant persons in the optimal context for answering the study question rather than at random (Johnson et al., 2020). Qualitative researchers acknowledge that sure participants are more likely than others to be "rich" in data or insight, more relevant, and effective in reaching the study goal and addressing the topic (Johnson et al., 2020). The conceptual framework directly impacts sample definitions, sample size, and participant recruitment (Johnson et al., 2020). Gathering data from diverse sources to enhance rigorous research quality was a

crucial aspect of a case study (Yin, 2018); having at least five participants may be required to achieve saturation hence, the objective was to interview at least two medical professionals face-to-face or via Zoom or by phone.

Ethical Research

Following proper ethical norms, human participation must be safeguarded. Because of the in-depth nature of the study approach, ethical considerations reverberate more strongly in qualitative investigations (Mohd Arifin, 2018). Ethical problems must be examined throughout the qualitative research process by balancing the possible hazards of the study and the anticipated benefits (Mohd Arifin, 2018). Mohd Arifin (2018) states engaging in a research study, participants must be appropriately informed about the research, grasp the material, and choose whether or not to participate. After thoroughly discussing the research process, participants have agreed to participate in this study (Mohd Arifin, 2018). Researchers must protect the privacy and confidentially of study participants (Yin, 2018). I have added unique identifiers to protect the participants' names. I have assigned unique identifiers to protect the participants' identities. I have used P1 through P4 as unique identifiers to label study participants. Yin (2018) stated that excluding personal demographics from the study and using codes further protect participants' confidentiality.

Participants signed a consent form. The consent form explains the purpose of the research, informs participants of their rights to withdraw from the process without consequence, and explains confidentiality measures applied during and following the research process. Participants have gotten enough opportunities to ask questions and

share their concerns. Participation was voluntary, and participants have the choice to join or withdraw from the research without consequence. Consent has been gained in the following ways: freely (voluntary), persons must understand the request, and impacted individuals have consent. Before data collection, participants must be told about the study's potentially sensitive nature and choose an isolated space (Hensen et al., 2021).

Therefore, to reduce risk, I would use code words to protect the identity of participants. Confidentiality has been preserved throughout the data collecting and analysis process by storing the data in a secure location and preserving it from exposure (Wongsala et al., 2021. I have advised the participants that the interview transcripts and other acquired data have been securely and secretly held for at least 5 years, with only myself having access to the data. The digital data have been password-protected; the physical data have been locked in a storage file at the researcher's home. The materials, both digital and manual, have been destroyed after 5 years. All printed papers and computer information have been shredded and permanently wiped with the help of a data shredding firm.

After receiving approval from the Walden IRB (06-07-23-0255159) committee to begin my research. All participants must sign a consent form accepting the study's requirements. Throughout the process of my research and beyond, I have upheld the highest ethical practices. In addition, participants have not been offered any funds for their participation throughout the study.

Data Collection Instruments

As the researcher, I am the primary data collection instrument, and my task was to conduct interviews, store data safely, and protect the integrity of the study. In qualitative health research, semistructured interviews and focus groups are frequently employed (Kelly et al., 2021). A qualitative research study obtains primary data through observation, semistructured interviews, and document analysis (Moustakas, 1994). Regardless of the study strategy, the data collecting, and organization methods must be transparent and reproducible, advancing and allowing data analysis (Williams & Moser, 2019). Therefore, an interview protocol was essential for obtaining qualitative data (Yeong et al., 2018). Following the interview process for this study, I have reviewed available documents and artifacts to gain further insights to support the analysis. An interview protocol ensures a consistent approach to the interview process, ensuring that each interviewee was provided with the same questions and structure to enhance reliability. (Yeong et al., 2018). In addition, rich qualitative data assists researchers in gaining a deeper grasp of the respondents' experiences and identifying critical factors pertinent to the topic matter.

Maintaining data organization throughout the qualitative phase improves the study's dependability (Yin, 2018). I have utilized an Excel spreadsheet containing the interview's date, the participant's pseudonym, data from the recorded interviews, and information from the hospital documents. The spreadsheet data have included handwritten field notes recording subtle details such as sighs and facial expressions in the spreadsheet data. By centralizing the data, I have been able to organize it in a way that

makes it easily accessible. In addition, I have kept all of the research data from the recorded interviews, and the electronic and handwritten field notes secure on my password-protected computer. I have used cloud storage to secure information.

Data Collection Technique

I collected all data as the primary research instrument. Researchers acting as human instruments bring value to the study, according to Yin (2018). Qualitative research necessitates extensive, complicated, and sensitive data, allowing themes and conclusions to emerge via thorough examination (Barrett & Twycross, 2018). I gathered data through semistructured interviews and member screening; these techniques help build trust with participants.

After receiving IRB approval to conduct my research, I have reached out to the participants. I have discussed the process for written consent with the participants. I have discussed the business problem of the study with the participants. Member checking was essential in building trust in qualitative research (Candela, 2019). I have asked the research questions next. Member checking was crucial since these validity demonstrations boosted researchers' and participants' trust in these contextually relevant statements. Researchers use member checking to guarantee that participants voices are accurately represented by giving participants the option to confirm or reject the correctness and interpretations of the data, lending validity to the qualitative case study (Candela, 2019). I used the member checking process to ensure all transcripts are accurate before sharing it with participants.

I used semistructured interview sessions with open-ended questions to investigate the business problem. The interview was a critical component of data collection in qualitative studies (Fritz & Vandermause, 2018). The interview procedure was highly respected since it results in an intimate encounter, critical information, and interpretive conclusions (Fritz & Vandermause, 2018). I have conducted interviews to gather data for the doctoral study. Face-to-face interviews, however, have long been the standard method for conducting qualitative interviews in healthcare research (Saarijärvi & Bratt, 2021). The COVID-19 epidemic has increased the need to investigate alternate ways of conducting interviews to gather data (Saarijärvi & Bratt, 2021), which has caused rapid digitization within the healthcare industry and increased the usage of video, phone, and internet interactions (Saarijärvi & Bratt, 2021). As a result, whether by Zoom or phone, I addressed the research problem with the participants at the outset of the interview by stating the study's goal.

Data Organization Technique

I have saved the research material from the recorded interviews and the electronic and handwritten field notes on my password-protected computer and use cloud storage as a backup method. I have kept a research journal to record unspoken information beyond what I have already stated. To document and track the changing concept, it was vital to date each codebook iteration (Eakin & Gladstone, 2020). Consequently, all data have been collected and processed following IRB approval. I have used a unique coding method to differentiate and classify the participants; for example, the participants have been classified as P1, P2, P3, P4, and P5. Any documentation for the study's source and

relationship may be cataloged and labeled. Conventional qualitative data analysis processes included coding, discovering themes, phenomenological constant comparative procedures, member verification, and preparing memos (Eakin & Gladstone, 2020) and coding categorizes data by labeling data segments, which are subsequently sorted and arranged, most commonly into topic catalogs.

All recordings have been securely kept on the cloud using my username and password. Before the interviews, I assessed the efficiency of the audio recorders used to conduct and record them. Using an audio recorder during interviews has allowed me to analyze audio quality and review the conversations in their entirety using replay tools. All interview transcriptions have been saved to a Dropbox cloud storage location. I have scan and uploaded handwritten notes to the same Dropbox folder. I have employed two-factor authorization to access research documents as an extra security step to guarantee further protection and secrecy; all files have been password-protected. Electronic storage devices, flash drives, written material, and papers have been safely maintained in a secured filing cabinet for 5 years after transcribed interviews and data.

Data Analysis

The data for this qualitative multi-case research have been compiled via semistructured interviews with participants in the healthcare field. According to Yin (2018), the most critical use of company documents in qualitative research was to strengthen and justify evidence from other sources, such as semistructured interviews. In qualitative research, organization records and information enhance evidence from sources such as semistructured interviews with study participants.

Triangulation aids in developing novel approaches by combining fresh ways of understanding an issue with traditional data-collecting methodologies (Abdalla et al., 2018). The goal was to contribute by analyzing the phenomena from several angles and broadening scholars' understanding of the subject, allowing for new and more profound aspects (Abdalla et al., 2018). Triangulation refers to examining the same event or study subject using data from many sources (Abdalla et al., 2018). Different data types can confirm, develop, or enlighten the research topic (Abdalla et al., 2018). Data types reduce interpersonal and analytical biases and enhance the likelihood of replicated findings (Abdalla et al., 2018). Researchers must use logical approaches to describe, depict, summarize, recap, and assess data. In this study, I have utilized methodological triangulation to compare diverse data types. Answers to semistructured, open-ended interview questions and document examination contribute to solving the fundamental study problem. In addition, research methods from these sources constitute the foundation for the data analysis, with respondents presenting possibly varied viewpoints on managing EHR.

Coding the interview data and documents, grouping similar tendencies in the findings, and producing themes aligned with the critical research question and conceptual framework are all part of the data analysis procedure in this case study research. Prior to coding, the interviews have been thoroughly examined and verified with each participant. By maintaining a professional approach to interpretation, research was less likely to introduce personal bias and opinion into data interpretation (Yin, 2018). By identifying

significant themes from the findings and drawing conclusions, have addressed the central research question.

Reliability and Validity

Reliability

Researchers can improve their work's dependability by showing and supporting dependability. Researchers must ensure trustworthiness and dependability (Watts & Finkenstaedt-Quinn, 2021). However, it was up to the researcher to select the best technique for their data and planned study (Watts & Finkenstaedt-Quinn, 2021). It was also vital for researchers to communicate their findings properly, including the crucial component of demonstrating dependability, so that audiences may better comprehend and assess the research's findings (Watts & Finkenstaedt-Quinn, 2021). I have followed the steps to capture data collection and analysis techniques. By following interview protocol to ensure that each interview was conducted in the same manner, I have members check with each interviewee to ensure that my interpretation of the results was accurate. The interview process has comprised establishing first contact with participants, scheduling interviews, obtaining authorization, interviewing people, and confirmability to maintain consistency.

Validity

Credibility, transferability, and confirmability are essential criteria to consider when judging the trustworthiness of research (Kyngäs et al., 2020). Credibility was the belief in the accuracy of the results (Kyngäs et al., 2020). Transferability refers to the results' applicability in various settings ((Kyngäs et al., 2020). Confirmability refers to

the degree of neutrality or the amount to which a study's conclusions represent the respondents' beliefs and experiences rather than the researchers' biases, motives, or interests (Kyngäs et al., 2020).

In qualitative research, credibility refers to the extent to which the study findings and conclusions may be credible (Nassaji, 2020). The research focuses on the outcomes' authenticity and the extent to which they match the actual event in question (Nassaji, 2020). The researcher must ensure that their interpretations of the research participants, context, and methods are as precise and complete as feasible (Nassaji, 2020). By achieving credibility in the study by guaranteeing data saturation, employing member checking, methodological triangulation, directing the investigation with an interview procedure, and producing an audit trail to demonstrate my research methods. Member checking allows the researcher to verify the accurate depiction of participant's voices. It strengthens the validity of the qualitative study (Candela, 2019). Methodological triangulation ensures that information from more than one source supports study conclusions. The interview protocol improves research consistency and general reliability by assuring uniform procedures throughout the data collecting, processing, and storage stages.

Transferability was the ability to apply the methods and techniques used in the research, to other comparable circumstances (Nassaji, 2020). In quantitative research, transferability appears equivalent to generalizability (Nassaji, 2020). In terms of implementing the methods developed by the participants in this study, the findings of this study may be transferrable to comparable hospital settings facing similar issues with

readmissions. On the other hand, the construction of an audit trail improves

transferability. All study attempts have been documented in a notebook to establish a

record for researchers to follow if they desire to repeat the research processes.

Confirmability refers to the assurance that the data can be verified through

multiple means, such as through alignment with the conceptual framework, literature, and

consistency in the research findings (Nassaji, 2020). Confirmability in qualitative

research may be established by explaining the data and conclusions so that others can

check their correctness (Nassaji, 2020). The study's findings are confirmable using

numerous techniques, including a reflective diary and audit trail, careful question

selection, and the use of an interview protocol. I have ensured that the obtained data

reflects the participants' experiences and thoughts rather than mine. A standardized

interview procedure, triangulation, member verification, data saturation, careful question

development, and an audit trail have been employed to reduce personal bias.

Transition and Summary

In Section 2, I have discussed various concise phases of the research process.

EHR strategies for healthcare organizations work to eliminate medical errors and boost

profitability. The purpose statement was presented for the second time in this section of

the doctoral studies. The researcher's function, the study's participants, the research

method and design, population and sampling, the ethical research discovered, data

collecting instruments utilized, data collection technique, data analysis, reliability, and

validity are all explored in Section 2. The presentation of findings, implications of social

change in health care, and applicability to the professional practice of the health care

sector are all contained in Section 3 of the research. Section 3 contains study findings and action recommendations. In summary, Section 3 of the doctoral study offers my comment on my experience with the study and a conclusion statement.

Section 3: Application to Professional Practice and Implications for Change

Introduction

In this qualitative case study, I examined HIT and EHR strategies employed by certain medical professionals to validate medical data further to improve hospital efficiency and patient care. I performed in-person semistructured interviews with five healthcare professionals from various firms in Georgia and Florida who agreed to participate in this study to collect data. All study participants had at least 5 years or more experience implementing EHR: the themes evolved through a triangulated study. The results showed improved communication, accessible EHRs, and consistent information formats lessened medical record inaccuracies and raised revenues. Participants in this multiple case study suggested that using EHRs in the healthcare sector would increase profitability and decrease drug errors, benefiting patients and healthcare professionals.

Additionally, enhancing communication and employee involvement may positively affect the healthcare sector, improving growth and creating more sustainable communities. The themes that emerged were (a) improve communication, (b) establish training, and (c) increase charting accuracy and completeness. Data were collected and triangulated through semistructured interviews, searching the internet, and document reviews, confirming this study's strategies use to ensure the accuracy of medical records to improve hospital performance and patient care.

Presentation of the Findings

In this section, I detail information about the emerging themes from the interviews, the application of the research to the broader business community, and the potential reach of the data into the body of knowledge on the topic. The overarching research question for this multiple case study was: What HIT and EHR strategies do medical practitioners use to ensure the accuracy of medical records to improve hospital performance and patient care? Data for the study were gathered through semistructured interviews with five healthcare leaders. The interview results included comparing the experiences of healthcare leaders working with EHR applications in their firm to identify information technology solutions and tactics utilized to oversee innovation so that organizations remain acceptable.

Figure 1

General and Demographic Information of Healthcare Leaders

Parameters	Participant #1	#2	#3	#4	P5
Code	P1	P2	P3	P4	P5
Education	Bachelors	Masters	Bachelors	Bachelors	Bachelors
Years (current company)	10 years	20 years	15 years	10 years	10year
Total industry leadership	10 years	30 years	30 years	12years	15years

I used open-ended interview questions to learn about healthcare organization strategies with successful leadership use when successfully implementing EHR applications. Each participant was assigned a unique identification (P1-P5) to ensure confidentiality. Upon the participant's interview, I analyzed the data using Yin's (2018) five steps: (a) compiling, (b) disassembling, (c) reassembling, (d) interpreting, and (e)

concluding. During the data coding, I identified themes and concepts presented by

interview participants. My data analysis strategy included interview transcriptions and

notes.

Figure 2

Presentation of Findings

Conceptual framework	Themes	# of Participants	% of Participants
Managing communication to increase patient care	Create a clear communication affects implementation for EHR because it is the core to the success of the implementation. . Foster capability through self-efficacy, personal development, and organizational learning.	5	100
Managing training to prevent errors	Ensure a capacity for innovation by training enhance the understanding of EHR to omit incorrect patient care.	5	100
Managing the accuracy for patient charts	Helps omit misdiagnosis, lawsuits, and increase patient care.	5	100
Reflection on results	Assess and adjust innovation results through improving patient care, prevent medical errors and provide accurate diagnosis on patient..	5	100

I used an interview protocol, asking all of the participants the same set of

questions in the same manner, and each person replied after taking as much or as little

time as needed. I began by explaining to participants whether they had the option of

answering questions or not. I emphasized to participants that it was my duty to maintain

the confidentiality of their information, including any interview recordings and notes I

may take. In order to validate my interpretation of the data from participants, I carried out member checking. I used Microsoft Word to convert the audio recordings into transcriptions after the participants confirmed the interpretations of the data obtained. I put the interview transcripts in Excel. Using the study questions as a guide, I gathered the interview data and ran an analysis. I used the patterns to categorize themes and eliminate extraneous information from interviews. The three themes that emerged from the data analysis were (a) improve communication, (b) establish training, and (c) improve charting accuracy and completeness.

Theme 1: Improve Communication to Enhance Teamwork to Increase Patient Care

Most healthcare leaders in my study strongly supported communication as a method for developing and managing effective change attempts to have a flourishing EHR. When describing a phenomenon, using a well-established theory and framework backed by data gives the description validity. Healthcare practitioners' teamwork and communication have improved thanks to the application of socio-technical system theory (Trixie et al., 2023). Communication was the first key concept to emerge. The communication theme emerged from the responses given by participants to interview questions and was the most often identified technique across the data. Leadership in healthcare teams promotes efficient communication, which improves teamwork and reduces the likelihood of errors or misunderstandings (Akalin & Mostepaniuk, 2023). Efficient communication was essential for patient safety because it reduce the risk of errors and misunderstandings (Akalin & Mostepaniuk, 2023).

The healthcare leaders started change initiatives by explaining why the changes were needed. A communication technique enhances the continuity of treatment by improving the interaction between the patient and the healthcare professional (Dadgar & Lo, 2024). Therefore, EHR deployment and changes affecting the hospital must commit to driving the change process, which can only occur with good communication.

Kalogiannidis (2020) stated that communicating was crucial for organizations' development and sustainability. Most companies rely on strong interactions with consumers and staff to generate sales and expand operations. Kalogiannidis (2020) stated that poor or insufficient communication often contributes to organizational mismanagement and adverse commercial outcomes. P1 stated,

"before electronic applications, healthcare workers communicated through paper, but now communicating electronically, physicians and analysts can communicate in real-time. Therefore, with rules and regulations changing, healthcare managers met to discuss strategies with the HIM staff and clinical managers." Correspondingly, P2 stated,

"multiple ingrate meetings were essential so that management and users can bring their concerns and come to some type of agreement when implementing an EHR application." P2 believed that

"managers evaluate different committees from a clinical perspective and have change control on finances and clinical sides," P2 stated

"managers evaluate anything before analysts put data in the beneficial system; managers do not put things in the system based on one person. The information

has to be beneficial across the board. The date has to be of some value to the

hospital and employees to be effective".P3 stated,

"Communication was the key to addressing challenges faced with implementing a

new EHR system. P4 suggested that

"Having meetings to evaluate best practices would determine which strategies

would be used to improve medical record accuracy." P5 stated,

"Excellent communication was important because it leads to good medical record

practices, which would improve return on investment for a healthcare

organization." Each participant in this study agreed that communication was

crucial to the success of the core migration or solution.

Theme 2: Establishing Training to Prevent Medical Errors

All participants stressed the value of educating staff whose positions or

responsibilities must change due to the implementation. Effective training lays the

groundwork for accessing patient information and documenting patient treatment

(Mandato & Kulhanek, 2022). Each participant recognized training as one of the key

tactics for creating and managing an effective transformation endeavor, which led to the

second theme establishing training to prevent medical errors. Therefore, healthcare

professionals must participate in continual educational and professional development

opportunities to stay abreast of recent medical discoveries, evidence-based treatment, and

patient-centered care practices (Bhati et al., 2023) because it would benefit the care of

patients when healthcare leaders are educated when it comes to implementing new

applications.

The healthcare leaders used training to implement change throughout the organization. According to Rivaldo and Nabella (2023), training is a process that enhances a person's capacity and effectiveness in performing their duties by enhancing their understanding, abilities, perspectives, and behaviors concerning their field of work. A highly complex intervention that takes place in a dynamic socio-technical health system is teaching healthcare professionals how to use electronic health records (Rangel & Humphrey-Murto, 2023). Therefore, all participants reflected that continuous training reaffirmed the change in implementing EHR applications. Socio-technical, systems, and interpersonal elements describe how information technology and human behaviors interact (Khairat et al., 2023). When analyzing the demands, workflows, and behaviors of individuals and organizations in the framework of information systems and technology, this domain draws on the ideas of social interactions, behavioral, mental, the economy, human aspects of technology, leadership, and systems disciplines (Khairat et al., 2023). In this study, each participant emphasized that training conducted before, during, and after the implementation helped build a smooth transition when implementing EHR. There was a need to comprehend how social and technological elements are interconnected, as doing so might aid in identifying potential weak points and hazards associated with infrastructure failures, which would emphasize how critical it is to understand healthcare facilities as socio-technical systems (Heinzel et al., 2023). P1 explained that

> training, with EHR, just like anything, was the key to omitting errors and
> misunderstanding between leaders, employees, and patients. Training users on

what to look for was crucial when it comes to a complete patient chart. In

addition, be patient with the end users and work with them. P2 stated,

 "any experience when implementing a new EHR and how necessary training

was to have a complete patient chart without errors," P1 advised that,

"If we do not train users regarding an EHR application, they cannot navigate

through it well and cannot document as they should within the application." P1

also stated that

 "explains that users must know how to utilize the application as a whole. That

was why we train all users". P2 stated,

"that if we do not train users in our system, they cannot navigate through well and

cannot document as they should within the system." P2 stated that,

"training all staff, even the HIM team, ensures they can use the chart and provide

the necessary information to complete the record. Users needed to know how to

utilize the application as a whole." P3 explained,

"training was a crucial component of the accuracy of the medical records." P3

indicated that

"peer review audits and reporting help to determine areas of weakness that should

be addressed immediately with more training and education." According to P3,

"training and education for staff are challenging, especially for larger

organizations. However, training every staff member to use the new EHR system

properly." P4 advised that

"Training was monumental in ensuring accurate records," the employees needed.

P4 stated that

"training for all users, extra if needed, to help the users feel more comfortable

with the system and get users' input eases the transition and adoption phase," P5

explained that

"HIT and HER training help ensure greater accuracy in medical records by

ensuring providers, clinicians, and other staff members perform the same steps

when providing patient care," P5 stated

"training healthcare professionals and staff ensure that each person knows his/her

role in the patient care process." All participants agreed on the need for training

all employees.

Theme 3: Increasing Charting Accuracy and Completeness to Ehnance Changes

At the strategic, tactical, and operational levels, decision-making procedures face

difficulties due to operations' intricate and dynamic nature (Da Ros et al., 2024). Health

and social care delivery aims to prevent issues brought on by disconnected care systems

by consolidating patient data to create a shared understanding and facilitate the

coordination of a patient's treatment. The way that socio-technical progress permeates

and changes the way that professionals and patients get care (Khalil, 2023). Therefore,

an outline of the vision of the organization interlinked with the mission, values, and

objectives of the planned change helps to have an accurate patient chart. Bawa (2023)

began with an in-depth test project to examine the technology and optimize your rollout

strategy for your business. All participants agreed that leaders' authentication,

engagement, and willingness to participate in the rollout process increased the likelihood of the transformation's long-term success regarding EHR. Healthcare environments are dynamic, multifaceted systems comprising human agents, dynamic networks, shifting relationships, and social processes, as recognized by sociotechnical theory (Jeffries et. al, 2023). Therefore, the study noted that while user participation was necessary, the leader must select when to install EHR applications. The participants agreed that establishing an EHR was a significant step and that everyone who needed to engage was on the same page. Bawa (2023) noted that when a pilot was successful, it should be gradually scaled up while evaluating the effects on the organization, management of changes, and resource needs. Therefore, businesses encouraged cross-functional collaboration to ensure implementation aligned with business goals and objectives. Therefore, patients depend on their healthcare professionals to accurately document and understand their medical records (Amosa et. al., 2023). P1 thought

"an outline of the vision of the organization interlinked with the mission, values, and objectives of the planned change helps to have an accurate patient chart, which omits incorrect patient care," P2 explained that

"we focus on the organizations' needs to implement things, for example, Patient Focus. Therefore, we focus on the integration standpoint. We evaluate the patient chart to ensure we take a system and implement everything within the system and do not have outliers, even from a billing perspective", P3 explained that

"We have increased accuracy rates, resulting in more accurate and complete coding and facility reimbursement when it comes to an effective HIT and EHR for accurate patient chart," P3 explained that

"During the change initiative. Accurate documentation in the medical record ensures that all providers treating the patient know all the diagnoses, procedures, treatments, results, and medication the patient was taking. All of this information was essential in the care of the patient." P4 believes

"To enhance the accuracy of medical records, a hospital's EHR should allow providers full access to the patients' records. The system could compare existing patient information and give alerts to any information that contradicts what has been documented for that patient." P5 believed

"Determining the HIT and EHR strategies to improve the accuracy of medical recording practices started with understanding the paper manual processes of capturing medical data and transforming it into an electronic process."

Applications to Professional Practice

The findings were presented as effective tactics successful healthcare industry leaders utilize to create and manage change resourcefulness. This research could help other healthcare leaders who strive for the accuracy of medical records using strategies to mitigate information technology in the healthcare organization when it comes to HIT and EHR. According to O'Connor and Cormican (2022), leadership, organizational communication, and organizational culture are all elements that influence implementation

effectiveness. Healthcare leadership can use the study's findings to improve education

continuity by establishing and maintaining the successful implementation of EHR.

To enhance communication, leaders should consider and explain the reason for

the change, which should be consistent with the mission and vision of the organization.

The interviewees encouraged leaders to strengthen communication throughout the

implementation process. Leadership meetings, staff meetings, and one-on-one encounters

were among the face-to-face tactics used by research participants. Healthcare leaders

could use the outcomes of this study to develop a communication plan for EHR, training,

and patient care. Training equips healthcare executives and workers with the knowledge,

skills, talents, and understanding required to function effectively and efficiently.

According to the study findings, training was vital to organizational success and

performance, allowing the organization to remain competitive and sustainable.

Participants encouraged leaders and employees to invest in training and communication.

Participants ensured executives and staff participated in the implementation of training

for EHR; which will encourage staffing to pay. Training was provided during and after

the implementation of the change in order to conduct ongoing sustainability evaluations.

The findings of this study suggested that improving communication, training, and

accurate patient records will lead to a decrease in medical errors and an increase in

patient safety. Therefore, business leaders attribute their efficacy in coordinating and

leading change activities to improved engagement through leaders when implementing

EHR. Participants in the study stated that to fully understand the effectiveness of an

organization's HIT and EHR methods of improving medical record accuracy, they must

be profitable to all individuals involved, beginning with leadership and continuing through patients, the community, and beyond. When planning and implementing changes, participants in the interview study highlighted organizational communication, training, and maintaining an accurate patient record as crucial strategies for success. Participants in the study reiterated the company's objective and vision during meetings, training classes, and employee engagement. Paladino et al. (2023) a key component of person-centered treatment was practical patient communication. Therefore, a successful implementing was crucial to the success of an EHR application and healthcare organization.

Implications for Social Change

The implications are expressed in terms of tangible improvements to individuals, communities, organizations, institutions, cultures, or societies, as the finding could affect social change and behavior. Healthcare services are provided by EHR systems without regard to social, economic, or geographic constraints (Woldemariam & Jimma, 2023). The implications for social change improved services for patients within healthcare institutions by increasing the lifespan of the community by more rapid and efficacious treatment of patients may lead to reduced stays and greater patient intakes, improving the efficacy of medical care, people would be socially active in the community, helped the economy, the improvement in lifestyle means less hospital stay and people life span would increase.

Through the development of measures to reduce information technology disparities in healthcare organizations, this study could contribute to a positive change

within the hospitals and communities; the participants suggested that it was crucial to comprehend the methods that prosperous people in business have employed to maintain business continuity. Healthcare executives could adopt EHR systems in healthcare institutions using tactics suggested by this study by increasing communication, which allowed staff to communicate effectively with patients, improving training will prevent medical errors, and when medical errors are improved due to training, then patient charts are accurate; therefore, enhance patient care, prevent medical errors, and shorten patient stays. A successful deployment has also resulted in an accurate patient chart.

Therefore, the implementation of EHR in healthcare organizations presented opportunities to improve patient care. Users must fully know the system's functionality, security measures, and environmental effects (Baltruschat et al., 2023) because the system introduces efficiencies that create a more accurate and streamlined patient care approach. Successful EHR deployment may lead to good societal transformation by increasing the effectiveness of healthcare supplied to patients, ensuring the confidentiality of medical records, reducing healthcare expenditures, and improving the general public's health. EHR based social change enables patients to take control of their health, communicate with clinicians, and participate actively in their care online.

Recommendations for Action

Present and future healthcare leaders may want to examine the recommendations provided by this research to help them design and manage change projects. My doctoral study was for the healthcare sector's healthcare leaders, employees, and community members. My specific recommendations for current and future business leaders are (a)

improving communication, (b) providing training, and (c) improving charting accuracy

and completeness. Healthcare leaders need to assess the global environment and

determine the type of implementation and training changes needed for EHR.

The strategies suggested by study participants aimed at reducing information

technology differences can be helpful to healthcare leaders who are having difficulty

integrating EHR applications throughout their healthcare organizations to reduce medical

errors in diagnosis and encourage efficiency. Healthcare leaders can use suggestions for

action to implement new methods for information-technology risk management and

profitability.

The first important recommendation was for business leaders to convey the

purpose and importance of the organizational change initiative to encourage employees to

take an active part in the change as communication moves throughout the organization,

and leaders should be explicit about the benefits of the change and the process. Based on

feedback from the study's participants, the data analysis demonstrated that standardized

data formats promoted communication within the healthcare sector, allowing leadership

to communicate effectively, cut down on medical errors, and have more complete patient

charts. Participants thought that good communication about change initiatives was a key

component of successful change initiatives. Based on the research's findings,

standardizing data formats was suggested as a course of action to decrease medication

mistakes and boost revenue.

To ensure the success of the change initiatives, leaders should offer training,

according to the second recommendation from this research. To achieve sustainability,

healthcare executives should consider creating and arranging appropriate training

regarding the change effort and coach and mentor staff members before, during, and after

the change. Healthcare leaders suggest that before implementation, providing staff with

training has ensured that they know and understand the expectations. The knowledge,

skills, and procedures required for the change are communicated and developed via

training during implementation; therefore, after implementing these changes, leaders may

consider workshops to occur to reinforce, maintain, and advance the evaluation of the

change. In this study, healthcare management advised that all personnel, including

leaders, undergo training to improve.

Regarding implementation, the third recommendation from this research was for

healthcare leaders are encouraged to include and engage personnel in this innovative

endeavor aggressively. Healthcare administrators must allow staff to submit feedback

when creating and implementing a change initiative. Healthcare leaders must engage staff

regularly and provide updates on the change initiative plan. To maintain employee

morale, healthcare leaders communicate the process with staff.

By applying these recommended strategies, healthcare leaders may use successful

strategies and effective practices to implement change when implementing EHR

applications. When developing solutions, a further essential step was to investigate the

method of implementation mapping to provide a more systematic approach to

overcoming hurdles (Shin et al, 2023). Healthcare managers can increase their knowledge

and strengthen their capacity to implement change by attending classes regarding

implementing innovation and communicating throughout the process from beginning to

end. Business executives, healthcare organizations, and other experts can lead to lowering medical errors and boosting revenue by sharing this study's results with researchers.

Recommendations for Further Research

Based on the qualitative multiple case study the strategies healthcare leadership uses to implement EHR applications within the healthcare industry to improve hospital performance and patient care. Leaders in the healthcare business contributed to the research for this qualitative case study with advice on reducing information technology disparities in healthcare. In the future, a study may focus on preventing errors to the patient chart electronically after integrating EHR application implementation into healthcare methods. The findings of this case study could improve the strategies utilized for minimizing information technology disparities in healthcare organizations. The EHR applications may aid in measures to reduce medical errors in healthcare companies by implementing and grasping what causes conflicts within the application.

In the future, a researcher may consider an extensive quantitative analysis may concentrate on statistical data that demonstrates the evolution of the adoption of EHR in the healthcare industry as well as any issues that follow data entry for the use of EHR systems in healthcare organizations. Therefore, improving the communication methods healthcare organizations use has bridged the gap while preserving a secure setting (Madavarapu, 2023). Following the implementation of EHR systems, this study provided healthcare leaders with clarity to develop innovative strategies for reducing medical errors through electronic data entry on the patient chart.

The sample size was the study's most significant limitation. However, researchers could consider an extensive sample size study with a quantitative study approach to collect statistical data on how EHR application implementation in healthcare organizations has advanced over time. Another limitation of this study was the number of participants who could recollect circumstances from interviews about EHR implementation and discrepancies in their healthcare organization. In order to circumvent constraints in the future, healthcare researchers might collect a broader data sample, which would be more accurate and less skewed toward a small sample of participants.

Reflections

As I reflected on this experience, it has been extraordinary. The primary goal of this qualitative case study was to investigate the techniques healthcare leaders employed in implementing EHR systems to ensure the accuracy of medical records and enhance the hospital's efficiency and patient care. My purpose in this qualitative case study was to collect data without prejudice, and I am convinced I succeeded. Rigorous study, perseverance, and good organization of time skills were necessary for the Walden University Doctor of Business Administration Program. Despite the duration of the interviews, the intellectual rigor remains valuable. Throughout the data-collecting phase, I met people with various backgrounds eager to share their knowledge with other healthcare leaders. The study collected data from five knowledgeable healthcare leaders with years of experience adopting EHR and understanding the importance of staff education. While the healthcare leaders came from various hospitals, they worked

together to achieve a shared goal: business viability. I consider myself fortunate to have traveled this path.

As a professional healthcare system analyst, I am proud of my academic achievement and the opportunity to expand my knowledge of successful change management strategies. I feel fulfilled that I have contributed to the healthcare field and identified the gaps in implementing EHR applications regarding training and providing an accurate patient chart within healthcare hospital settings. My doctoral study emanated from a need to inspire and lead successful change initiatives. I remain committed to intertwining change and success. In a personal way, the strength of a leader was the ability to set the foundation for others to grow. I am proud to begin a journey that can help others grow, emulate, or build on.

Conclusion

I researched strategies to mitigate information technology discrepancies in healthcare organizations in this multiple-case qualitative study. The information and data collected for this study were received through semistructured interviews to gather information from healthcare leaders about their experience implementing EHR applications. I benefited from the guidance of my Walden University research committee, which worked carefully to ensure that the study was about an authentic business problem, the research topic started on target, and the study design was detailed enough to yield relevant results. Despite the length of the analyses, the academic rigor remains valuable. The themes developed created an understanding of what strategies healthcare leaders can apply to implement EHR applications within the healthcare industry to ensure the

accuracy of medical records to improve hospital performance and patient care. EHR

allows healthcare leaders to retrieve and exchange health information electronically and

omit access to patient charts by paper. The use of EHR applications in healthcare

organizations versus the use of paper records improves efficiency through decreasing

costs and increased accurate patient records. Because strategies to mitigate information

technology caused discrepancies in healthcare organizations, EHR applications

implemented in the healthcare industry would immensely reduce medical errors and

increase profitability.

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