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Health Care Manager Electronic Medical Record Systems Implementation Strategies to Improve Patient Outcomes

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This is to certify that the doctoral study by

McArthur Damis

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Walden University
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Abstract

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BS York College CUNY, 2011

MS York College CUNY, 2011

Doctoral Study Submitted in Partial Fulfillment

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Doctor of Business Administration

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Abstract

Ineffective implementation of electronic medical record systems (EMRS) among health care outpatient clinics results in substantial financial loss. Health care managers (HCMs) in outpatient clinics who fail to implement EMRS adversely affect employee usage and performance. Grounded in fayolism theory, the purpose of this qualitative multiple case study was to explore the strategies health care managers used to implement EMRS in their organizations. The participants were six HCMs in a U.S East Coast city. Thematic analysis was used to analyze the data from semistructured interviews and internal company documents. Five themes emerged: internal communication, overcoming barriers, time management, compensation improving productivity, and data organization. A key recommendation for HCMs is to ensure that employees have adequate EMRS training to implement EMRS in health care outpatient clinics. The implications for positive social change include the potential to decrease societal health care costs and optimize health care information management for improved patient safety and wellbeing.

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Dedication

I would like to dedicate this research study to my mother, Rolande Damis, and my father Brunet Damis. If it were not for them pushing me towards higher education in pursuing a doctorate degree, being supportive during my struggles, and encouraging me to never give up, I would have never reached this far. I also want to thank my mentor, Dr. Judy Pilgrim, for inspiring me and teaching me how to move forward during this DBA research study process. There were times where I felt as though my hard work to complete this DBA research study would not be attainable. However, by God's grace, my family, and the presence of positive role models and peers, I was able to reach the end of this long journey. I thank you all.

Acknowledgements

I would like to start off by thanking my chair, Dr. Warren Lesser, for helping me get through this difficult journey. You helped me organize, edit, and structure my DBA research study, and I was able to reach you whenever I had any important questions. Also, I thank you for encouraging me to push forward with my research study during difficult times in the process. I would also like to thank Dr. Janie Hall for her constructive feedback. Your criticisms to write, collect, and analyze the data in my research study were very helpful. Your encouraging words at the conclusion of my first and final oral defense were reassuring and uplifting, especially knowing that we are both in the rehabilitation field. Lastly, I would like to thank all of my URRs, for their expert analysis and review of my doctoral study to ensure that it meets quality academic standards. I express much gratitude to the entire committee.

This research study was a long journey that I envisioned, but at times had doubts about achieving, due to the many obstacles that stood in my way. I would like to thank my parents for continuing to believe in me towards achieving this great accomplishment. I also would like to thank my brother, Rody Damis, and sister, Marie Damis, because they inspired me to push far not only in academics, but in life. My close friends and family were also supportive of me throughout my DBA research study process. This journey taught me to have great patience and strive for my goals no matter what obstacles are in front of me.

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Section 1: Foundation of the Study

Health care managers can use electronic medical record systems (EMRS) in primary care settings due to higher demands in quality patient care (Raymond et al, 2015). The Health Information Technology or Economic and Clinical Health (HITECH) Act was passed as part of the American Recovery and Reinvestment Act (ARRA) of 2009 because of the overwhelming evidence that showed EMRS enhanced health care delivery (Adler-Milstein, & Jha, 2017). Organizational leaders can consider the long-term benefits of information technology to increase efficiency in patient care within health care facilities. Health care executives also have the continuing challenge of reducing costs while delivering quality patient care (Chen, 2018).

Background of the Problem

Health care leaders had been dealing with higher costs associated with EMRS implementation (Narattharaksa et al., 2016). Prior to the 1960s all medical charts that contained patient information were kept in paper and manual filing systems (Adler-Milstein, & Jha, 2017). Federal government officials first began using EMRS, better known as decentralized hospital computer programs (DHCP), with the Department of Veteran Affairs (Atherton, 2011). By the 1980s, focus continued to shift toward the use of EMRS.

During that time, officials from the Institute of Medicine (IOM) acknowledged that there needed to be a concerted effort to analyze the effectiveness of paper records (Atherton, 2011). The researchers at IOM published results of their study in 1991 and conducted a revised study in 1997, which further showed the need for electronic health

record (EHR) usage. However, in the study, the researchers indicated that the three main barriers to EMRS adoption are: costs, lack of standards, and security issues (Atherton, 2011). In response to the growing need for EHRs, the Office of the National Coordinator (ONC) was created in 2004. Members of the federal government recognized the need to make a concerted effort to convert traditional paper medical records into EMRs (Halamka, & Tripathi, 2017). A few years later, in 2009, Congress passed the HITECH Act as part of the American Recovery and Reinvestment Act to increase health care reimbursement and improve patient care outcomes with EMRs (Halamka, & Tripathi, 2017).

Although the adoption of EMRS through the HITECH Act improved performance in the health care industry over the past decade, there continues to be a slow rate of information technology (IT) implementation in small practices nationwide (Helton et al., 2017). One contributing factor may be that health care leaders could potentially deal with higher costs associated with EMRS implementation (Narattharaksa at al., 2016). The application and usage of EMRS can cost thousands of dollars due to the technical applications, and employee training needs (Inverso et al., 2015). Kruse et al. (2016) conducted a study where they identified 39 barriers to EMRS adoption. Kruse et al. (2016) also discovered that technical issues, maintenance costs, and staff training were issues that further complicated EMRS implementation in health care facilities.

Problem Statement

Health care executives have wasted millions of dollars when implementing EMRS in their organizations (Hoffer, 2019). Mosweu et al. (2016) revealed that approximately

38% of employees who provide health care services lack appropriate training to use EMRS. The general business problem is that some HCMs in outpatient clinics lack strategies to successfully implement EMRS in their organizations. The specific business problem is that some HCMs in outpatient clinics do not have strategies to successfully implement EMRS in their organization.

Purpose Statement

The purpose of this qualitative multiple case study was to explore the strategies some HCMs used to successfully implement EMRS in their organizations. The targeted population consisted of six rehabilitation HCMs in clinical settings located in a U.S East Coast city, who successfully implemented EMRS in their clinical departments. The implications for social change include the potential to have HCMs of health care outpatient clinics successfully use EMRS to decrease societal health care costs and optimize health care information management for improved patient safety and wellbeing.

Nature of the Study

Researchers use one of three methodological approaches: quantitative, qualitative, or mixed methods (Coll & Chapman, 2000). Qualitative investigators use open-ended questions to explore what has happened in an area of study (Krish et al., 2017). In contrast, quantitative methodology is where the researcher tests hypotheses and variable relationships or differences using closed-ended questions (Goertzen, 2017). The quantitative and mixed methods were not chosen for this research study because both require collecting statistical data for examining the significance of hypotheses with variables' relationships or groups' differences (Park & Park, 2016), which was not the

focus of this study. I used the qualitative method to explore the strategies small business HCMS used to improve the success rates of EMRS implementation resulting in enhanced employee performance, reduced medical errors, decreased waste of resources, and reduction of wait times.

I chose to perform a multiple case study for my qualitative research study. I first analyzed four research designs I could use for my qualitative study, including case study, narrative, phenomenological, and ethnography. Researchers who conduct narrative studies analyze the life experiences of subjects through participants' stories (Bruce et al., 2016), however I did not intend to explore the lives of individuals. Investigators who use phenomenological designs, endeavor to describe the meaning of experiences lived by individuals, which was also not the intent of my study. The ethnographic design would not be ideal for my research study either because I was not going to describe the customs of groups of people and their cultures. I chose to perform a multiple case study because it enabled me to develop an in-depth analysis of specific cases in multiple settings. The analysis of these cases in different settings, using investigative methods, was the root of this qualitative research.

Research Question

What strategies do some health care managers in outpatient clinics use to successfully implement EMRS in their organizations?

Interview Questions

1. What were your goals when coordinating the implementation of your organization's EMRS?

2. How did you plan your objectives to ensure a smooth transition from the previous medical record system to the current EMRS?
3. What were the key barriers to successfully implementing the strategies for EMRS?
4. How did your organizational leaders address the key barriers to implementing the strategies for the EMRS?
5. Based upon your experience within your organization, how have you been able to address staff concerns regarding EMRS implementation?
6. Based upon your experience within your organization, how have your employees responded to the coordination of EMRS implementation?
7. What were the key training strategies used to successfully implement the EMRS in your organization?
8. What specific training strategies were least helpful in successfully implementing the EMRS?
9. How do you and your organizational leaders plan to improve training for employees with future EMRS implementation?
10. What additional information would you like to share about EMRS implementation strategies?

Conceptual Framework

The conceptual framework that I selected for this doctoral study is *Fayolism*, which was created by Henry Fayol in 1916 (Fayol, 1916). According to Fayol (1916), certain managerial constructs impact organizations. The tenets of the Fayolism theory are

that *planning, organizing, commanding, coordinating,* and *control* are needed for managers to govern organizations effectively (Fayol, 1916). Fayol 1916 explicated constructs managers should use to meet goals and objectives such as training employees with new organizational tools. He concluded that managers should interact with personnel using the five functions to help employees to meet objectives (Fayol, 1916). Based on other research, Fayol's five functions of management are expected to apply to how managers perform organizational duties for successful EMRS implementation (Uzuegbu & Nnadozie, 2015). Researchers found that planning, organizing, commanding, coordinating, and control can help business leaders train employees using new tools (Uzuegbu & Nnadozie, 2015). Furthermore, Fayol (1916) conceptualized 14 principles of management, to help guide his five functions. The 14 principles of management are: *division of work, authority and responsibility, discipline, unity of comsmand, unity of direction, subordination of individual interest, remuneration, centralization, scalar chain, order, equity, stability, initiative, and esprit de corps*.

Operational Definitions

Affordable Care Act 2010: Congress passed the Affordable Care Act in 2010, which brought significant expansion of health care coverage to millions of people who did not have health insurance in the United States (Blumenthal et al.,2015).

Electronic Medical Records and Systems (EMRS): Electronic files, or EMRs, include the medical history of patients, progress notes, treatment notes, medical diagnoses, surgery information, lab results, and summaries of medical information (Mao, & Sun, 2017). The system that manages these electronic medical files, containing the

medical histories and notes on all patients is called the EMRS (Barrett, & Stephens, 2017).

Evidence-based practice (EBP): EBP is an approach that includes multiple methodologies from different professionals to focus on evidence quality to justify decision-making and plans in an organization (Rousseau, & Gunia, 2016).

Health care manager (HCM): A HCM is a professional who delivers leadership and direction to staff in an organization that provides health care services (Laud et al., 2015).

*Implementatio*n *Strategies*: Implementation strategies are the process of putting a decision or plan into effect (Lambooij et al., 2017).

Meaningful Use Measures: Meaningful use measures are mandated by the Center for Medicare and Medicaid Services to ensure that health care providers document key measures in EMRS regarding patient care to improve patient care efficiency (Heisey-Grove & King, 2017).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are statements that cannot be proven by the investigator (Sahin et al., 2017). In this study, I assumed that some managers who have an interest in the health care system would participate in this study. I assumed that the use of open-ended questions and a natural setting would encourage open communication and understanding with study participants. My assumption, also, was that follow-up questions and member checking functions would facilitate reliability, creditability, and trustworthiness.

Limitations

Limitations refer to the potential restrictions of the study which can affect the validity of the research results (Noble & Smith, 2015). To begin, the fact that this was a multiple site case study in a U.S East Coast city area may have limited the generalizability of the findings in different geographical locations. Secondly, there may have been external influences that might have altered the perceptions of the participants, affecting how they responded to the interview questions. I needed to determine the best methods to obtain accurate responses that reflect the participants' experiences with EMRS.

Delimitations

Delimitations describe the components of the study that are limited by the scope of the study (Baškarada, 2014). The first delimitation was the study would take place in different health care facilities, only in the U.S East Coast city area. The U.S East Coast city area would limit the number of possible participants and the level of generalizability in the results. The second delimitation was that I would collect data only by interview, and corporate documents. Using these methods, results might be based on subjective responses and interpretations of data produced by the participants and personnel from the selected facilities.

Significance of the Study

HCMs who implement EMRS bring value to health care practices by optimizing workflow, protecting sensitive patient data, and improving communication between other professionals that are relevant for positive patient results (Mao & Sun, 2017). According

to Baird and Boak (2016) EMRS can help expedite problem-solving in health care, that would otherwise take much longer. Therefore, professional use of information technology has advantages for health care provision, organizing information and ensuring that documents are stored and transferred through the proper channels. As technology improves, effective EMRS can continue to bring value to health care practices (Barrett & Stephens, 2017).

Contribution to Business Practice

This study may contribute to improvement of business practice by addressing the advantages of successfully transitioning from traditional paper documentation to an EMRS and illustrating how this was accomplished by HCMs. My findings in this study could be valuable to HCMs in outpatient clinics who are trying to successfully implement EMRS as well. Rehabilitation business managers may benefit from understanding successful methods, like planning for the transition, and the command and coordination of staff's actions in response to any changes being made, leading to proper implementation, as well. Using EMRS, HCMs could improve overall financial performance by optimizing scheduling, storing critical data for treatment, and reducing reimbursement times from insurance companies, increasing efficiency (Narattharaksa et al., 2016). According to Rechtman et al. (2019), EMRS managers may even gain a competitive advantage with successful implementation.

Implications for Social Change

The improvement of employee performance due to EMRS implementation can result in patients being discharged from outpatient clinics with better health outcomes

(Narattharaksa et al., 2016). The exchange of information through the EMRS is highly efficient so different professionals can communicate and perform daily work tasks effectively (Clarke et al., 2016). Therefore, the enhanced communication between different health care specialists can improve the possibility of patients having better coordinated of treatment leading to better quality of health (Narattharaksa et al., 2016).

HCMs who improve the protection of patients' confidential information also contribute to positive social change. Managers have been known to lack organization in ensuring the protection of sensitive information, which has led to data breaches (Elhai & Frueh, 2016). According to Elhai and Frueh (2016), the implementation of EMRS can help decrease the possibility of data breaches. Patient data protection could prevent fraud, financial theft, medical errors, and other consequences from a breach (Mennemeyer, et al., 2016). The security of medical records using EMRS implementation can also help protect managers from malpractice claims caused by medical errors (Elhai & Frueh, 2016). Using EMRS could potentially result in better provider-patient relationships and health outcomes, as patients may feel they can trust their provider and there is efficient handling of their private information. If patients feel that their visit process is seamless, organized, and up to date, they may feel more at ease in medical facilities and go more often to medical appointments for preventative care rather than in emergencies (Mennemeyer et al., 2016), which would be a welcome positive social change.

A Review of the Professional and Academic Literature

In this literature review, I included research about the impact managerial EMRS implementation has on the health care industry. Using the lens of the conceptual

framework of Fayolism, I analyzed the literature to examine how EMRS implementation changed organizational and industrial performance. I explored research through academic search engines and multiple databases to gather peer-reviewed research studies, journals, reports, and website articles, each no older than 5 years, filtered using keywords pertaining to EMRS usage/adoption, and concepts of Fayolism.

The literature in this study includes information on how EMRS can affect healthcare, the various methods of implementation, and the organizational effects of management-implemented EMRS. Concepts of Fayolism are found throughout the literature reviewed, as management strategies were dissected. In this literature review, following a discussion on the five functions of Fayolism and related theories, I illustrated the history of EMRS use, the importance of information technology, how managers' used Fayolism to improve EMRS implementation, advantages and disadvantages of EMRS, barriers to EMRS implementation, and the impact of EMRS use on patients. According to Clarke et al. (2016), EMRS implementation positively impacts patient outcomes when managers coordinate the right approach to enforce provider competency. As I concluded the literature review, I also acknowledged the need for further research.

Fayolism Theory

For this study's conceptual framework, I chose the Fayolism theory (Fayol, 1916). Fayol was able to define some of the essential managerial functions needed to successfully implement technological advances such as EMRS in a business setting (Fayol, 1916). Fayol was a French management theorist who conceptualized Fayolism, in 1916, and elaborated on management functions in organizations (Fayol, 1916). Business

managers have continued using Fayol's concepts to improve organizational performance years later (Edwards, 2018). Fayol created the five constructs or qualities a manager should maintain to stabilize relationships with personnel/employees. Fayol's five functions of management are planning, organizing, commanding, coordination, and control. Over time, researchers have found that managers can use the five functions to optimize employee performance in the health care industry (Edwards, 2018).

The first function of management that Fayol explained was planning. Helton et al. (2017) explained that planning is the act of anticipating future scenarios to properly allocate needed EMRS resources. EMRS implementation requires strategic planning due to organizational and industrial barriers (Helton et al., 2017). Managers are responsible for deciding how to proceed when adopting a new technology in an organization, planning how to institute EMRS and next, organizing resources for institutional needs (Helton et al., 2017).

Fayol's second function was organization of resources. Managers could use organizational skills to determine the best methods to implement EMRS (Edwards, 2018). According to Edwards (2018), managers who developed a mindset to organize resources positively impact EMRS implementation because the stakeholders of the organization can prepare for future needs. Managers may also consider organizing resources around employees who may resist changes in work demands (Edwards, 2018).

Organization is followed by Fayol's third function of management, command, where managers may need to disregard initial resistance from employees by giving directives to achieve future goals (Fayol, 1916). If managers are unable to command

employees to follow documentation protocols such as patient discharge planning, the stability of a health care organization can be negatively affected (Mijin et al., 2019). The command process may prove to be difficult when personnel cannot see the vision for organizational success. The EMRS implementation process may require managers to give directives when resistance from staff can create hardships (Mijin et al., 2019). Hence, the manager's ability to deal with employee resistance during EMRS implementation by bringing authority can help improve the acceptance and integration of the technology (Mijin et al., 2019).

The synchronization of employee efforts is vital for coordination, which is Fayol's fourth managerial function (Fayol,1916). According to Eliyana et al. (2019), to coordinate organizational goals, managers should display transformational leadership skills which would help motivate employees. Managers and personnel can coordinate together and ensure that objectives are completed Eliyana et al. (2019). The manager's use of staff training to utilize EMRS requires purposeful coordination between employers and staff for positive outcomes. The coordination between manager and employee can allow for a smooth transition from paper documentation to EMRS (Eliyana et al., 2019).

Furthermore, with Fayol's fifth managerial function, control, managers can regulate EMRS resources. The organizational leadership's use of training sessions with the staff can help managers control workplace needs and ensure employee tasks are completed according to the rules and guidelines (Bacud, 2020). Managers should control the solutions to EMRS implementation barriers, which can include the lack of computer literacy, time constraints, and a decreased familiarity with the new resource (Benwell et.

al, 2017). The manager's main responsibility in controlling EMRS implementation is to correct errors when necessary, which is important to avoid organizational issues (Msiska et al., 2017). For example, staff members may dislike using certain tools in the EMRS and use shortcuts to expedite the documentation process (Msiska et al., 2017). However, using shortcuts might not be the right way to complete necessary documents and can cause errors (Msiska et al., 2017). The manager should control these kinds of situations and enforce proper EMRS usage (Msiska et al., 2017).

According to my analysis of the cited literature, managerial employment of Fayol's five functions can improve the chance of success when implementing a new process. According to the authors and researchers in my literature review section, planning, organizing, commanding, coordination, and control were identified as methods to successfully impact employees and organizational adoption of technologies like EMRS. Health care managers (HCM) can therefore implement EMRS in their facilities using the five functions of management concepts that Fayol and others purport as effective strategies (Benwell et. al, 2017; Helton et al., 2017; Bacud, 2020; Mijin et al., 2019; Msiska et al., 2017; Edwards, 2018).

Alternative Conceptual Frameworks

Diffusion of Innovation. An alternative conceptual framework to Fayolism is the *diffusion of innovation theory* by Rogers (1962), who illustrated how business managers can implement new resources in the workplace using innovation as a motivational factor. Rogers (1962) explained that management can use motivation processes for innovation to grow over time through a social system. According to Rogers (1962) there are five

characteristics organizations demonstrate during the innovation process, which are (a) relative advantage, (b) compatibility, (c) complexity, (d) trialability, and (e) observability. The concept of diffusion is the possibility that members of the organization will adopt to new innovations, ideas, products, or services (Dearing & Cox, 2018). The innovation adoption process takes place in accordance with the length of time in a sequence associated with how long a group takes to embrace the new idea (Dearing & Cox, 2018).

The diffusion of innovation theory is broadly used by marketers today to promote adoption of new services and products (Naeem & Alqasimi, 2020). According to Naeem and Alqasimi (2020) marketers use motivation during the EMRS implementation process because of negative factors such as limited IT skills, low professional qualifications, and work-overload. Naeem and Alqasimi (2020) explained that managers should use distinct communication strategies to facilitate change in adopter group behavior. Therefore, HCMs in health care organizations may use the diffusions of innovation theory as a management function to encourage their staff to accept EMRS implementation for better business and patient outcomes.

Scientific Management Theory. Another alternative theory compared to Fayolism is the scientific management theory, also called Taylorism, conceptualized by Frederick W. Taylor between 1880 and 1890 (Awofeso, 2019). Taylor was among the first theorists to study productivity and how managers can maximize work activity for optimal business potential (Awofeso, 2019). Taylor theorized that managers should break down organizational tasks into smaller steps and find workers that best match those

assignments based on their ability (Awofeso, 2019). However, Taylorism has been opposed by researchers who argue that these concepts ignore the humanity and social aspects of the worker in order to complete work tasks (Su, 2017).

Taylor illustrated the concept of productivity, which is a one-sided view of management (Su, 2017), compared to Fayolism where there are multiple areas of managerial functions and principles addressed to improve organizational performance (Fayol, 1916). Taylor looked at workflow to improve business efficiency, however, researchers would argue that Fayolism is a more practical theory today because the five ~~functions of~~ managerial functions are a more holistic approach to management (Edwards, 2018).

The History of EMRS Implementation

The United States Congress and former President Obama passed the Affordable Care Act (ACA) in 2010, which changed the direction of the health care industry regarding service delivery (Gostin et al., 2017). The primary purpose of the ACA 2010 was to lower federal spending in health care. The members of congress added more provisions to the ACA such as meaningful use measures for EMRS (Mennemeyer et al., 2016). The members of the Center for Medicare and Medicaid created an EHR incentive program to achieve benchmarks with EMRS and thereby improve patient health care outcomes (Mennemeyer et al., 2016). Congress also enacted the HITECH Act as part of the American Recovery and Reinvestment Act in February 2009, which helped to begin the integration of EMRS throughout all health care facilities with federal support (Mennemeyer et al., 2016).

Medicare and Medicaid officials established the ACA and delivered incentive payments to eligible providers in all settings who implemented and demonstrated meaningful use for certified EMRS technology (Mennemeyer et al., 2016). According to Mennemeyer et al. (2016) eligible professionals can receive up to $44,000 through the Medicare incentive program and up to $63,750 through the Medicaid program, which varies by state. The government legislator's focus with HITECH (2009) and ACA (2010) was to expedite the EMRS implementation process within more facilities and with professionals who are responsible for patient care. Legislators emphasized reducing cost expenditure and placing penalties on providers who did not comply with adherence to meaningful use measures. Health care providers were required to document clinical reports using meaningful use measures of EMRS to enhance organizational performance (Grinspan et al., 2017).

Currently, managers in larger health care facilities are adopting EMRS for transference of patient information and positive societal outcomes (Adler-Milstein & Jha, 2017). According to Grinspan et al. (2017) the performance of employees in health care organizations consists of work efficiency using medical record systems (Grinspan et al., 2017. According to Adler-Milstein and Jha (2017), managers can facilitate EMRS adoption and increase efficiency, patient satisfaction, and overall facility performance. Adler-Milstein and Jha (2017) mentioned that health care providers using paper documentation can increase the likelihood of documents being inaccessible due to decreased storage and data breaching, as opposed to the usage of EMRS.

Managers using a documentation system lacking storage with easy access may hinder the transference of information, thereby impacting organizational stability (Adler-Milstein & Jha, 2017). According to Barrett and Stephens (2017), providers who continuously use information technology can positively affect operational performance. Researchers Mao and Sun (2017) mentioned that technological advances with EMRS created improved flow of information between patients and clinical facilities. HCMs can also take advantage of technological advances in EMRS because it helps to provide clear documentation of evidence-based practice, which can communicate positive patient outcomes to insurance companies (Mao & Sun, 2017). The case for managers adopting EMRS using Fayolism concepts may seem simple; however, there can be a steep learning curve, which can cause discrepancies that disrupt EMRS implementation, especially in private outpatient clinics (Zhang & Zhang, 2016).

Barriers to Implementation

According to Jawhari et al. (2016) managers should be cognizant of EMRS implementation barriers such as budgeting, limited technology resources, and conflicting workforce norms. One reason for slow adoption is the health care provider's lack of competency, which can hinder the coordination of staff and employers for successful implementation (Sikula et al., 2016). The second reason for slow adoption is that resistance to changing organizational culture can cause employees to not take commands from managers (Msiska et al., 2017). The lack of manager coordination and command functions for EMRS implementation can either be substantial or minimal, but it can impact workflow either way (Ballaro et al., 2020). The third reason for slow EMRS

implementation is poor planning and organization for budgeting finances and technological resources (Edwards, 2018). Therefore, HCMs must think of creative ways to introduce EMRS to the workplace (Vadillo et al., 2016).

Lastly, Awol et al. (2020) stated that members of an organization may avoid usage of EMRS in health care settings, like urgent care facilities, due to the increased skill demands and a high stress environment. According to Msiska et al., (2017), under the Fayolism theory, managers may need to control unanticipated work interruptions and set a corrective action plan. To summarize, when deciding to apply information technology to an organization, managers need to be cognizant of the many potential EMRS implementation barriers that can arise for improved health care and business outcomes (Jawhari et al., 2016).

Use of Traditional Paper Medical Records

Managers and health care providers who still use traditional paper medical records in outpatient clinics is another barrier to EMRS implementation (Tsai et al. 2019), which may require managerial planning and organization to remedy the problem (Edwards, 2018). Lower costs is one of the reasons why many health care facility managers, especially in outpatient facilities, have been slow to transition from paper medical records to EMRS **(**Tsai et al. 2019). In comparison to EMRS, traditional paper medical record documentation was the original method providers used to chart patient information (Mao & Sun, 2017). However, with the changes that occurred in patient privacy laws and additional requirements for delivering higher health care quality, traditional paper medical record documentation no longer meets the national standard in retrieving and

sending information (Mao & Sun, 2017). Additionally, in the lens of Fayolism, efficiency is imperative to improve business operations using the five functions of management which are planning, organization, coordination, commanding, and control (Fayol, 1916). Health care professionals wrote patient notes onto physical charts often located in one area (Tsai et al. 2019). Managers from medical practices stored these paper documents in paper files until patients were discharged (Tsai et al. 2019). After the patient was discharged, personnel involved in managing old medical records were required to store these documents in warehouses where they could be retrieved in the future (Tsai et al. 2019).

One of the biggest disadvantages of traditional paper medical records is that personnel are required to use physical space to store paper files, which can be limited (Tsai et al. 2019). Second, traditional paper medical records can easily be mishandled or lost, which can create hardships for the health care facility and patients (Tsai et al. 2019). Third, personnel take more time to complete paper documentation than electronic medical notes because of various factors, such as multiple providers needing to write on a chart at the same time (Tsai et al. 2019). Lastly, some medical personnel may write illegibly, which can obfuscate communication regarding patient care needs (Tsai et al. 2019). In summary, traditional paper medical records are used with HCMs in outpatient clinics for cost effective reasons and training but it can be less efficient than EMRS (Tsai et al. 2019), which is due to business leaders not using the five managerial functions according to the Fayolism theory (Msiska et al., 2017).

Advantages of EMRS

I was able to conduct an extensive review of the literature where I discovered many advantages of EMRS implementation which are, benefits in reimbursement, fiscal management, data security, improving education, optimizing productivity, enhancing user satisfaction, increased data storage, and decreasing medical errors. I reviewed the literature and compared studies with research on the Fayolism theory. I discovered that managers in health care use the five functions of management (planning, organizing, coordination, command, and control) to improve EMRS implementation and the advantages mentioned.

Health Care Reimbursement

Managers using the planning, organization, commanding, coordination, and control tenets of Fayolism should strive to minimize the barriers to EMRS implementation, which include reimbursement policies and procedures (Edwards, 2018). Health care insurance company managers usually audit clinical documentation to ensure that providers are demonstrating client-centered care with evidence based practice (EBP) to justify reimbursement (Mosweu et al., 2016). The stakeholders in insurance companies sometimes challenge service claims because of poor documentation, which consequently limit reimbursement (Rechtman et al., 2019). Therefore, HCMs must use control managerial functions to ensure personnel write quality documentation for proper insurance reimbursement, which may require financial obligations (Rechtman et al., 2019).

According to Casalino et al., (2016), physicians spend more than 15.4 billion dollars annually on reporting health care quality measures to ensure insurance reimbursement. Also, physicians can spend approximately 785 hours annually documenting screens, patient related information, and billing codes (Casalino et al., 2016). HCMs need to spend time and capital on EMRS quality to ensure reimbursements and maintain financial stability for the organization (Mosweu et al., 2016). Hence, because of government incentives, HCMs may benefit from spending more funds to ensure providers limit documentation errors to increase the possibility of compensation, which can improve organizational stability (Casalino et al., 2016).

Managers should ensure correct EMRS usage with employees to reduce documentation errors to improve reimbursement (Hussain & Qamar, 2016). According to Bacud (2020), Fayol mentioned that managers using the control managerial function can ensure that corrective actions are in place to rectify mistakes. According to Puttkammer et al. (2016) poor documentation quality can arise from errors in software, poor user interface, or the lack of user proficiency. Health care providers having an bigger workload may also increase the possibility of documentation errors (Hussain & Qamar, 2016). However, health care providers can make corrections to legal documents and limit failed reimbursements if tools in EMRS are implemented to detect documentation errors (Hussain & Qamar, 2016). Therefore, medical errors in documentation can be reduced using corrective actions with employees and resources available in EMRS to reduce reimbursement rejections (Hussain & Qamar, 2016).

Fiscal Management

Fayol (1916) mentioned that managers must structure and align activities of the work environment through organization. According to Adler-Milstein and Jha (2017) managers must organize documentation through EMRS for fiscal management (Adler-Milstein & Jha, 2017). Managers are required to ensure that health care providers are documenting quality notes in an organized manner, which demonstrate provision of treatment for patients and ensure reimbursement (Adler-Milstein & Jha, 2017). Employees can generate desired outcomes such as increased insurance reimbursement by using EMRS to organize the data and treatment plans properly (Adler-Milstein & Jha, 2017). The HITECH Act of 2009 mandated the implementation of EMRS with the focus of adhering to quality measures, according to Medicare and Medicaid guidelines (Grinspan et al. 2017). HCMs have the responsibility to confirm that EMRS resources are in in proper order to comply with the qualifier guidelines (Grinspan et al. 2017). According to Xiao-Ying and Peiying (2016), federal guidelines mandate that health care employees provide input in EMRS, which would demonstrate proficiency with patient care. Patient care is just one of the many factors impacting fiscal management. Managerial use of organizational budgets impact EMRS implementation because increased quality of EMRS tend to be more expensive (Rittenhouse et al., 2017).

According to Rittenhouse et al. (2017) an expanded budget that allows for information technology in outpatient physician practices can increase employee satisfaction. However, the HCM would need to budget for resource expenses while ensuring EMRS quality. For example, if leadership in a health care facility has a growing

need to service a growing patient census, then a high quality EMRS with 24/7 technical support may be necessary to ensure stability (Ngugi et al., 2018). Therefore, managers should use their leadership skills, and other resources, to not only implement a possibly expensive EMRS, but to also bring forth a reliable support team that can ease the resistance to EMRS adoption (Eliyana et al., 2019) .

Transformational leaders can help relieve financial issues by decreasing stress levels, improving motivation, and inspiring workers to achieve needed goals, despite a low budget pool and limited resources (Eliyana et al., 2019). Adversely, managers who overlook the needs of the employee, create an environment where motivation is lacking and consequently generate higher turnover rates (Eliyana et al., 2019). Employees need to feel confident that their immediate supervisors are there to help alleviate any issues that may arise with organizational changes, not just pile on more work (Eliyana et al., 2019).

In addition to using transformational leadership skills, managers may look for technical resources within an EMRS to help solve budget needs. According to Dainton and Chu (2017), practitioners who embark on medical service trips should consider mobile EMRS to maintain data management and integration of evidence-based decision support. Along with hardware options such as mobile EMRS, software tools may also accommodate organizational needs. According to Msiska et al. (2017) EMRS can be regarded as flawed if the right software infrastructure is not applied correctly. Managers should explore options for information technology hardware as EMRS could help remedy issues in the short term and improve fiscal needs (Msiska et al., 2017).

Ensuring patient protection

Information technology systems can be important for the enhanced security provided for patient records, which require coordination and planning from the manager of operations (Edwards, 2018). The health care leader ensuring protection against patient data breaching is paramount (Or et al., 2018). According to Sher et al. (2017), an employee's preconceived fears of security breaches can create the perception of data vulnerability. On the other hand, health care practitioners may only perceive the importance of EMRS information security when threats are present, which raises alertness (Sher et al., 2017). Therefore, managers should train all staff and providers to ensure that proper measures are taken to protect sensitive information throughout the EMRS data entry process (Or et al., 2018).

According to Lele (2019), it is important for health care providers to understand the nuances of security tools in EMRS to prevent data breaching, which may take time. Health care providers should be trained by management on the protocols needed to protect patient information effectively (Lele et al., 2019),

According to Enaizan et al. (2020), HCMs have the responsibility to comply with regulations and security policies to protect patient privacy. Data breaches can have serious consequences, which can be caused by the lack of management to protect patient information (Enaizan et al., 2020). HCM protection of patient data can prevent fraud, financial theft, medical errors, and other consequences. Unfortunately, there are managers in health care facilities who do not prioritize EMRS data protection needs (Enaizan et al., 2020). Managers would be wise to view information technology administrators, staff, and

EMRS resource tools as a network for a holistic view of the adoption process (Msiska et al., 2017). Managerial usage of security compliance training may decrease the possibility of a data breach.

Federal government officials have observed that EMRS protection is not a priority among health care organizations as the increases data breaches remains an issue (Enaizan et al., 2020). The cost expenditure associated with data breaches makes it imperative for health care leaders to prioritize data protection. Department of Health and Human Services personnel have become more aggressive with HIPPA regulations requiring massive fines to be paid if data breaches are detected (Enaizan et al., 2020). Organizational leaders within health care organizations can lose millions of dollars in revenue after a data breach, which can also lead to financial instability (Enaizan et al., 2020).

Executives and staff should understand that protecting patient information can actually improve workflow, while minimizing exposure of sensitive data (Enaizan et al., 2020). Health care officials may lose the benefit of modern technology by not using EMRS tools to protect sensitive information (Enaizan et al., 2020). For example, a provider failing to close a note that is open on the computer screen may expose patient information. Health care providers inadvertently exposing patient information to other personnel not associated with patient care can increase the possibility of HIPPA violations (Anderson et. al, 2017). The health care personnel's security compliance can not only decrease the risk of information being exposed, but can help patients trust that health care providers have their best interests in mind (Anderson et. al, 2017). Therefore,

understanding EMRS would improve the way providers share, store, and protect patient information, ensuring successful EMRS implementation, which requires planning, organization, and coordination.

Education in Healthcare

HCMs may organize data from electronic medical record systems to educate future medical professionals. According to Hashim and Khan (2018), managers in the health care field give minimal attention towards EMRS in clinical teaching. Hashim and Khan (2018) explained that although clinical data is important to help improve communication, billing, administration needs, and meeting regulatory appliance standards, there is also a need for learners to use EMRS as a tool to enhance education. Hashim and Khan (2018) found that the participants in their study expressed the need for education in clinical decision making, which included structured differential diagnosis, clinical imagery, and direct links to search engines.

According to Bergquist et al. (2020), managers can use EMRS to detect temporal patterns related to traumatic injuries. For example, during the wintertime, snowboarding injuries can be more prevalent as compared to boating accidents in the springtime. The temporal patterns related to traumatic injuries which are detected in EMRS can be an informative tool to educate students and professionals, regarding how to anticipate and possibly better treat injuries in the future. Health care professionals may also use other EMRS features that can enhance treatment delivery, such as the detection of medical conditions that are time-based (Bergquist et al., 2020). The researchers further concluded that EMRS can be a useful resource in informing the public through retrospective

analysis of medical conditions, made accessible to professionals, facilities and other researchers.

Another research study was conducted by Choi et al. (2018) aimed to analyzing the usefulness of an academic electronic medical record (AEMR) application for undergraduate nursing students during their clinical rotations. Choi et al. (2018) conducted a quasi-experimental design research study with 75 third year nursing students enrolled in a clinical practicum. The 75 students were split into an experimental group and a control group. The usability of the AEMR was assessed in the experimental group whereas the control group did not use an electronic medical record system. The conclusion of the study revealed that the experimental group was able to increase their competencies in documentation of observations and interventions (Choi et al., 2018).

The research supports the apparent usefulness of EMRS when it comes to on-the-job education in health care facilities (Hashim & Khan, 2018), as well as preparatory education in academia (Choi et al., 2018). Managers would be wise to view information technology administrators, staff, and EMRS resource tools as a network for a holistic view of the adoption process (Msiska et al., 2017). Therefore, based on the research by (Hashim & Khan, 2018), (Bergquist et al., 2020), and (Choi et al., 2018), HCMs can organize EMRS data to educate other current and future health care providers in different areas of need for societal benefits.

Improving Productivity and Efficiency

HCMs planning, coordinating, and organizing strategies to implement EMRS for increased productivity in the workplace are behaviors that are consistent with the tenets

of Fayolism (Bacud, 2020). HCMs may care about organizational needs to increase efficacy and maintain productivity. One of the important components of EMRS is the capability of multidisciplinary communication (Lieu et al., 2019). Organizational leaders using communication may increase the chances that health care providers meet productivity goals set by managers and complete certain objectives. However, to improve performance, managers should ensure that the staff understands company protocols (Lieu et al., 2019).

The managerial goals of productivity and efficiency require the collaboration of multiple people in an organization. Staff interdisciplinary coordination may help to reduce unnecessary costs associated with miscommunication. According to Guo et al. (2017), interdisciplinary staff cohesion using EMRS can improve workflow and reduce stress during peak times.

Incidentally, although during peak times more patient face-to-face interactions is said to foster trust and a better workflow, the employee usage of EMRS can limit patient face-to-face interaction (Hawthorne & Richards, 2017). Therefore, it is important that managers structure the work environment properly to account for proper time frames between face-to-face interaction and EMRS usage (Hawthorne & Richards, 2017). Health care providers deliver good client-centered care by personally communicating to patients, developing rapport, and emphasizing quality treatment to them (Hawthorne & Richards, 2017). Unfortunately, providers can be bombarded with endless productivity demands, which can limit face-to-face interactions with patients. Managers can find good strategies to incorporate frequent interactions between health care providers and patients

(Hawthorne & Richards, 2017). The patient and clinician's face-to-face interactions may improve workflow, patient safety, and increase employee satisfaction, which can also improve productivity and financial stability (Guo et al., 2017).

Increase in User Satisfaction

Employee satisfaction can enhance patient satisfaction with health care services, which can enhance coordination (Eliyana et al., 2019). According to Fayol, managers can use coordination as a way to harmonize the activities of each organizational unit to ensure stability in the workplace (Bacud, 2020). Patients should be the priority when it comes to health care provision, but employees, who are sometimes not content in their job roles, can potentially produce a negative atmosphere in the workplace (Eliyana et al., 2019). EMRS can help improve job satisfaction by decreasing the time needed to record, protect, and communicate important patient information (Lieu et al., 2019).

Health care providers have the difficult task of treating patients and documenting notes, which can increase stress levels. Job stress can elevate as productivity demands increase, which can hinder organizational performance (Lieu et al., 2019). However, according to Lieu et al. (2019), user satisfaction can increase with the extended use of EMRS when time is allotted for documentation. According to Eliyana et al. (2019), job stress can be attributed to burnout where high levels of emotional exhaustion can induce poor performance. Therefore, it would be in an employer's best interest to consider how to increase employee satisfaction in conjunction with the implementation of EMRS to ensure coordination.

Cocosila and Archer (2017) conducted a study that analyzed a theoretical model on pre-adoption views of EMRS by Canadian health care practitioners. In the past, researchers have analyzed the factors that contribute to EMRS implementation in large organizations, but few researchers have evaluated the practitioners' perceptions of information technology prior to its inception. HCMs would benefit to assess the health care provider's view on EMRS prior to adoption because insufficient adoption and usage of EMRS is a multi-faceted problem that can affect the overall performance of the organization (Cocosila & Archer, 2017). The researchers concluded that the two factors that influenced perception of EMRS adoption were ease of use toward the technology and existing job stress. Therefore, ensuring that personnel are experiencing high job satisfaction can increase successful implementation because when morale is high, the willingness to adopt a new EMRS is increased as well (Lieu et al., 2019).

Information Storage

One area of need that can sometimes be overlooked for EMRS implementation is the importance of data storage (Zhang et al., 2021), where organization is the manager's responsibility (Bacud, 2020). Managers need to take initiative to be sure they are properly handling and managing EMRS documents, which can reduce health care costs (Zhang et al., 2021). Health care clinicians using digital storage of patient data is imperative to prevent costly mismanagement of information (Zhang et al., 2021).

Health care providers can use cloud-based systems to store patient information on an external server or documentation can be saved in client-server systems in the office (Zhang & Zhang, 2016). Health care staff who use offsite cloud systems benefit from the

reduced need for in-house technology resources (Zhang et al., 2021). Information storage and management considerations can play an important role in efficiency, thus managers need to plan ahead to ensure that they can accommodate the demand.

Reducing Medical Errors

Although managers using EMRS storage can help prevent mistakes in documentation, health care providers should be careful with documenting notes to avoid errors (Alshaban & Almasri, 2020). According to Alshaban and Almasri (2020), preventable medical errors rank third in the cause of deaths in America with almost a half million casualties per year. Alshaban and Almasri (2020) also stated that active and latent medical errors are two main causes of negative health care outcomes. Active medical errors occur due to mistakes and lapses. Latent errors are caused by organizational design such as poor training, inadequate design, and a lack of categorization (Alshaban & Almasri, 2020).

Health care personnel who use EMRS have the advantage of possibly reducing medical errors (Alshaban & Almasri, 2020), however, avoiding such errors can be difficult, especially when employees are required to multitask (Ratanawongsa et al., 2018). Multitasking occurs when clinicians perform two or more assignments simultaneously. Multitasking while using information technology may actually increase the rate of these medical errors (Ratanawongsa et al., 2018). Ratanawongsa et al. (2018) explained that to minimize employee stress and burnout, potentially leading to mistakes, managers can enforce delaying EMRS documentation until after a patient visit. Therefore, to optimize workflow and reduce errors, managers should consider when and

how employees use EMRS functions and processes when considering organizational design (Ratanawongsa et al., 2018).

In one study on healthcare manager leadership, Sushil and Raziuddin (2018) found a correlation between the implementation of EMRS and the perceived reduction of medical errors. Sushil and Raziuddin (2018) also stated that an EMRS user can discover evidence-based recommendations for preventative services, which can potentially reduce additional medical errors. Sushil and Raziuddin (2018) noted that the direct costs to implement EMRS in a multi-physician health care facility averages to be around $162,000 over a period of 5 years, which appears negligible when considering the millions of dollars that are spent for health care costs with human life. The cost/benefits with reducing medical errors and wasteful spending can certainly be taken into consideration when adopting EMRS (Sushil and Raziuddin, 2018).

In a similar study, Jindal and Raziuddin (2018) realized the importance of EMRS to reduce medical errors. Jindal and Raziuddin (2018) examined the use of EMRS and its functions by professionals with experience using EMRS. Using a quantitative method, the researchers surveyed 100 medical professionals practicing nanomedicine in Phoenix Arizona. Jindal and Raziuddin (2018) reported that the most common medical errors health care professionals observed during audits included errors on hand-written prescriptions, and improper dosage delivery to patients. Jindal and Raziuddin (2018) stated that errors on hand-written prescriptions and improper dosage delivery have partly contributed to the increased costs in health care. Jindal and Raziuddin (2018) study results also showed a direct correlation between the number of years experienced using

EMRS and the reduction of medical errors. Furthermore, there was a significant relationship between the overall use of EMRS and the reduction of wrong site surgery and dosage delivery errors (Jindal & Raziuddin, 2018). Jindal and Raziuddin (2018) concluded that, although medical errors can be reduced with EMRS, the competencies of the medical professionals using the technology is also important.

Disadvantages of EMRS

HCMs may encounter possible disadvantages when implementing EMRS. The three possible disadvantages discovered through the research were fraudulent billing, training necessities, and budgeting needs. However, through the lens of Fayolism, three managerial functions were revealed through the research that can rectify disadvantages in EMRS implementation with are planning, organizing, and control (Bacud, 2020).

Fraudulent Billing

United States legislators passed the False Claims Act in 1986 where they focused on holding health care personnel and organizations responsible for dishonestly receiving funds from government programs (Howard, 2020). The federal government can bring forth litigation against any employee or manager who commits fraud using EMRS or any other tool for billing. The policymakers included the "qui tam" provision in the False Claims Act where for person, including those who are not associated with the facility, can report fraudulent activities with EMRS billing (Howard, 2020). Health care workers or civilians who report these unethical acts are called whistleblowers (Pozgar, 2016).

Health care providers who code and charge for services that were not performed commit fraudulent billing (Koppel & Kuziemsky, 2019). Health care providers and

organizations can also bundle procedures with additional services that were not performed (Howard, 2020. Health care providers need to document all necessary paperwork to justify services for proper health care reimbursement (Pozgar, 2016). Coders help prepare Medicare and Medicaid government claims using a specific digital language that clearly indicates the specificity of services that providers performed (Howard, 2020). However, health care providers can also intentionally use specific codes in EMRS to fraudulently bill for services for increased payouts (Howard, 2020).

The prevalence of fraudulent billing has increased annually with more usage of EMRS (Koppel & Kuziemsky, 2019), however, managers can use Fayol's suggested managerial function, control, to limit deceitful use of billing codes (Edwards, 2018). Fortunately, managers optimizing EMRS technology can improve the detection of fraudulent billing (Koppel & Kuziemsky, 2019). Health care providers need to ensure the usage of billing codes are specific so insurance companies are charged for services accurately (Howard, 2020). Usually, managers can detect these mistakes but, it is also helpful for employees to monitor mistakes to prevent any unnecessary mishaps (Howard, 2020).

Training Necessities

HCMs must consistently train their subordinates in using EMRS for successful implementation, which is another disadvantage (Flasher & Lamboy-Ruiz, 2019), but training needs can be rectified using proper planning and organization through the lens of Fayolism (Edwards, 2018). HCMs are required to learn the new guidelines necessary for EMRS documentation. Health care providers should understand how to properly

document services for reimbursement for the organization (Flasher & Lamboy-Ruiz, 2019).

Field inspectors from the Center for Medicare and Medicaid (CMMS) frequently audit medical records to confirm that notes are accurate (Heisey-Grove & King, 2017). Insurance company personnel can also detect errors in a medical note which can cause them to reject the documentation (Heisey-Grove & King, 2017). Leaders in health care facilities should train their staff to understand standard protocol for documentation in EMRS (Jawhari et al., 2016).

According to members of the CMMS, health care documents should be legible, which include progress notes, prescriptions, and orders (Heisey-Grove & King, 2017). Health care providers misreading patient documents can cause medical errors and other adverse patient events. Clinicians are required to have patient records completed with all pertinent information which includes diagnosis, treatment, and services performed (Heisey-Grove & King, 2017). Health care providers should also document time, date, and patient identifiers in their documents. Health care stakeholders have the responsibility to ensure that notes are qualified for insurance reimbursement (Heisey-Grove & King, 2017). Therefore, it is important for managers to train health care employees in the use of proper medical terminology when using EMRS (Flasher & Lamboy-Ruiz, 2019).

Health care providers should use the right terms to justify their level of expertise when providing services to patients (Flasher & Lamboy-Ruiz, 2019). Health insurance company personnel want to confirm that a licensed health care provider, with the right

skill sets, performed the correct treatment and that the documentation has the correct medical terminology (Flasher & Lamboy-Ruiz, 2019). Outside of billing, staff entering the wrong medical terms can cause medical errors to occur (Flasher & Lamboy-Ruiz, 2019). Clinicians using non-distinct medical terms can cause communication to be unclear which can lead to problems in treatment and adverse patient outcomes (Flasher & Lamboy-Ruiz, 2019). Therefore, HCMs training their employees can be paramount to successful EMRS implementation (Flasher & Lamboy-Ruiz, 2019), using two key managerial functions according to Fayol, which are planning and organization (Edwards, 2018).

Budget Needs

Health care managers may need to budget for EMRS implementation, which is another disadvantage (Green, 2017). However, according to Bacud (2020), HCMs can utilize planning and organization as managerial functions to budget for EMRS implementation. According to Green (2017), 38% of health care chief information officers (CIO) listed EMR optimization as the top area planned for investing and budgeting over the next three years. HCMs should consider the potential benefits with EMRS implementation while determining a budget for their organization (Maddox et al., 2017). The potential financial benefits of EMRS are increased efficiency, reduction of waste, and better financial and operational performance (Green, 2017). However, HCMs cannot justify EMRS implementation for private practices due to financial benefits alone because budgeting for capital expenses and projecting an expected return on investment (ROI) can be a difficult process (Green, 2017).

HCMs can determine whether to invest in EMRS by using a ROI and EMRS cost-benefit analysis (Green, 2017). The ROI is the calculation of how much financial gains an investment will bring compared to the funds spent implementing the resource. HCMs can use EMRS cost benefit analysis to quantify both tangible and intangible expenses (Green, 2017). According to Green (2017), the second factor that HCMs should determine is the overall short and long-term costs of EMRS. The HCM would need to evaluate the total cost of ownership (TCO). The three categories an HCM can look at are upfront costs, yearly costs, and 5-year TCO (Green, 2017).

The HCM can also investigate different deployment methods when factoring in different costs of EMRS implementation. Managers can use two deployment methods which are on-premises EMRS or cloud-based EMRS (Green, 2017). However, a HCM should explore the TCO, which can increase overtime with on-premises EMRS (Green, 2017). The manager's TCO for an on-premises EMRS implementation can increase due to necessary adjustments and fees as compared to cloud-based EMRS (Green, 2017). The health care administrator should evaluate the needs and fiscal resources of the organization and then choose the appropriate EMRS system (Green, 2017).

Organizational managers can expect hidden costs that come with EMRS implementation such as project maintenance, training fees, software licensing, and on-site hardware (Green, 2017). HCMs initiating EMRS implementation can also expect indirect costs such as decreased revenue, loss of productivity, and decreased patient visits (Green, 2017). Therefore, managers can expect direct and indirect costs when budgeting for

EMRS implementation, but with careful planning and organization the HCM can tolerate the expenses (Green, 2017).

Researchers say that HCMs should consider three factors when assessing EMRS implementation costs in private practices, which are fraudulent billing, expenses long term within five years, and training necessities (Flasher & Lamboy-Ruiz, 2019; Green, 2017; Rechtman et al., 2019). However, through the lens of Fayolism, the researchers stated that proper planning and organization of resources can remedy these problems (Flasher & Lamboy-Ruiz, 2019; Green, 2017; Rechtman et al., 2019). Rechtman et al., (2019) reported that the number of doctor-owned businesses dropped from 53% to 47% while hospital ownership of medical practices increased. Therefore, although EMRS appears to have advantages, considerations can be made through planning and organizing of resources before transitioning to the tool to alleviate disadvantages, especially for small health care practices.

Advances in EMRS

I conducted review of the literature where I identified two advances in EMRS implementation which are personal health record systems (PHRS), and mobile devices. The researchers in the studies discovered that HCMs used coordination, which is one of Fayol's management functions, with their patients and employees to deploy these two EMRS tools. As discussed earlier, Fayol described coordination as a way for managers to galvanize and motivate groups through good communication (Bacud, 2020).

Personal Health Record Systems

According to Hawthorne and Richard (2017), there are managers in organizations who are allowing patients to have access to open notes in their medical records. As a result, patients and health care providers co-create the documents in patient health record system (PHRS). Patients and health care providers can use PHRS to collect and share past/current health care information (Hawthorne & Richards, 2017). The purpose of the PHRS is for HCMs to help patients keep track of their medical history and lab results online (Hawthorne & Richards, 2017). Using the PHRS, the patient can access health records that otherwise would be difficult to retrieve. Managers can gain advantages coordinating with patients to use PHRS by improving the delivery of health care information.

Advantages. Health care providers have traditionally used EMRS to document patient data. However, providers can allow patients to manage data pertaining to their health care by using PHRs and thereby improving medical outcomes (Heath & Porter, 2017). According to Heath and Porter (2017), patients who use PHR often develop positive outcomes because they can engage with health care providers involved in their care provision. Managers can help patients feel empowered by using PHRS through navigating their information such as blood pressure, heart rates, and medicine prescribed from current and previous provider visits (Heath & Porter, 2017). The patient can also make decisions with medical needs using PHRS (Heath & Porter, 2017).

Disadvantages. The disadvantage with PHR is that patients may possibly wait for health care personnel to send over information electronically who are not part of the PHR

portal (Bouayad et al., 2017). Consequently, patients would enter information manually for those providers who are not part of the PHR system. Also, patients would possibly have to ensure that the data sent over the database is correct and assess any errors made by the provider (Bouayad, et al., 2017). Patients who are not used to being involved in managing their own health care through data entry and data checking may find the process tedious (Bouayad, et al., 2017).

Mobile Devices

Clinicians can use mobile devices to access information systems away from traditional locations (Modena et al., 2018). Providers who use mobile devices for medical record charting have resulted in increased productivity and efficiency due to easier access to patient data, which can expedite treatment needs (Modena et al., 2018). Health care providers are expected to document patient notes in a timely manner regardless of limited access to computers. According to Modena et al. (2018), health care practitioners observed that mobile devices improved access to clinical records while allowing for more flexible hours which improved work-life balance (Modena et al., 2018). However, although health care providers found mobile devices useful in restricting environments, there are advantages and disadvantages that should be considered for patient care (Modena et al., 2018).

Advantages. The health care practitioner can update patient information in real time during critical moments in care by using mobile devices (Schachner et al., 2016). In another study, Lomotey and Deters (2018) explained that when wireless connections are available, managers can help improve the use of EMRS by using mobile technology.

Health care providers can keep these portable devices in hand to track important information (Lomotey & Deters, 2018). Practitioners can find mobile devices more useful and efficient for maintaining medical records in fast-paced acute health care settings (Lomotey & Deters, 2018). According to Schachner et al. (2016), many practitioners have expressed that mobile devices are easier to use than traditional EMRS. However, using mobile devices for patient records may be prohibitive for some health care providers.

Disadvantages. One of the disadvantages of using mobile devices for patient records is the cost of technology (Schachner et al., 2016). HCMs choosing poor connection speeds with mobile devices to lower technology costs can create a major barrier to updating, uploading, or delivering information, which can affect patient outcomes (Schachner et al., 2016). HCMs using limited wireless resources cannot provide adequate internet connection and bandwidth which can hinder the communication between health care providers (Lomotey and Deters, 2018). Second, information technology (IT) support is necessary because of different levels of security and software issues that can arise (Modena et al., 2018). The complexity of protecting patient information increases with the use of mobile devices because of the risk of data theft (Modena et al., 2018). Third, additional IT training is necessary to avoid any errors in patient data input because different mobile devices may require various documentation needs (Schachner et al., 2016).

HCMs may find PHRS and EMRS on mobile devices useful because patients and clinicians can increase their involvement using both tools. Subsequently, managers

should coordinate with their staff to ensure deployment of the EMRS tools is successful (Edwards, 2018). Managers should consider advancements in technology when deciding on how to successfully implement EMRS and train their personnel. HCMs and staff can collaboratively take advantage of these tools and resources, which is a strategy that can improve their usage of EMRS (Hawthorne & Richards, 2017; Schachner et al., 2016; Modena et al., 2018).

Necessary Future Research

Allen-Graham et al. (2017) found that documentation guidelines for medical history must be in place for EMRS because critical information is typically missing from records such as demographics, and medical/surgical history. Allen-Graham et al. (2017) discovered that there are three main issues with health care providers' usage of EMRS. First, there are few standardized protocols adopted by providers for health care documentation (Allen-Graham et al., 2017). Second, the information documented, managed, and stored is variable and dependent upon the management needs of the health care facility (Allen-Graham et al., 2017). Third, the vast variability of patient information across all facilities has created ambiguity among health care providers, which can create negative outcomes (Allen-Graham et al., 2017). Therefore, personnel in the health care industry would benefit from a universal standardized EMRS across all health care domains (Allen-Graham et al., 2017).

Implementation Needs for Private Health Care Practices

Researchers Namageyo-Funa et al. (2018) conducted a study investigating the development of EMRS designed with immunization components used throughout health

care facilities, in Kenya. The researchers compared the selected EMRS with a standardized paper documentation system, the Maternal and Child Health Booklet (Namageyo-Funa et al., 2018). Namageyo-Funa et al. (2018) discovered that the data elements necessary to replace the standardized paper-based system were not found in every EMRS (Namageyo-Funa et al., 2018). Based on these results, Namageyo-Funa et al. (2018) concluded that further research must be done to assess the factors needed to fully adopt a uniform EMRS that matches the standardized paper-based system for immunization in Kenya.

Another research study was performed in user functionality of EMRS programs to improve health care business performance in outpatient clinics (James et al., 2017). James et al. (2017) found that many EMRS users input textual data that is unorganized and focused on financial and regulatory performance. James et al. (2017) investigated two different designs, an activity-based design that has a proven approach for integrating clinical decision support into front line care delivery, and a commercially-available EMRS that produced text-based data (James et al., 2017). James et al. (2017) found that the activity-based design EMRS enhanced the structure of textual clinical documentation which created computable data and allowed for faster response in care delivery (James et al., 2017). James et al. (2017) showed the importance of proper input into EMRS in private health care practices because many HCMs rely on computable data, such as templates, diagnosis codes, and billing codes.

In addition, a research study was conducted in the improvements of health care provision by gathering EMRS data that pertains to social factors (Awol et al., 2020).

According to Awol et al., (2020), health care practitioners may benefit from collecting important social history for patient records such as demographics, employment, and financial resource restraints. Managers of health care facilities may benefit from the data capture of social determinants to improve discharge planning, which can help patients thrive at home (Awol et al., 2020). Managers can then plan accordingly to ensure that the appropriate resources are in place to address these social factors.

HCMs should also consider all factors impacting EMRS implementation in outpatient clinics. According to Furusa and Coleman (2018), HCMs may need to consider internal and external factors when implementing EMRS. The internal factors that affect EMRS implementation include infrastructure, knowledge, technical support, interdisciplinary relationships, patient interactions, and IT security (Furausa & Coleman, 2018). The external factors that affect EMRS implementation are health care funding, policies, and government laws (Furausa & Coleman, 2018). In summary, research was conducted regarding several EMRS implementation needs with private health care practices including uniformity with EMRS (Namageyo-Funa et al., 2018), user functionality (James et al., 2017), and gathering detailed data in social factors (Awol et al., 2020).

Budgeting for EMRS and how it Affects Private Health Care Practices

According to Ngugi et al. (2018), it is important for HCMs to look at the end goal when finalizing a budget. HCMs have questioned whether the EMRS investments made for a private practice have translated into improved patient outcomes (Ngugi et al., 2018). Managers of private practices have resisted implementing EMRS because of high costs

(Helton et al., 2017). HCMs of outpatient clinics risk may negatively impacting organizational workflow by miscalculating budget needs for resources such as EMRS (Barrett & Stephens, 2017). Therefore, it is important for managers to analyze the necessary finances available for EMRS implementation resources to possibly improve business success.

In summary of the literature review, HCMs can positively impact the success of their private practice with EMRS implementation (Ngugi et al., 2018). Fayol (1916) conceptualized five functions of management. HCMs can increase the possibility of a positive employee and patient experience using the Fayolism concepts during EMRS implementation (Bacud, 2020). Managers can use functions rooted in Fayolism which include: planning to prepare and anticipate future scenarios and needs (Helton et al., 2017), organizing to ensure that there are enough resources for employees to have a positive usage experience (Zhang et al., 2021), commanding to give employees clear performance expectations and directives (Mijin et al., 2019), coordinating to ensure that employees in multiple disciplines are able to collaborate successfully (Eliyana et al., 2019), and control where HCMs address issues with employees by giving directives (Benwell et. al, 2017). Alternative theories like the innovation diffusion theory (Rogers, 1962), and the scientific management theory (Awofeso, 2019) illustrate an alternative view to managerial functions compared to Fayolism.

HCMs should overcome barriers using the Fayol (1916) functions of management to resolve issues such as, continued use of traditional paper documentation for convenience without assessing the long term benefits (Tsai et al., 2019) and employee

resistance or adjustment considerations (Ballaro et al., 2020; Robert et al., 2016; Jung et al., 2017). HCMs often have to ensure that money is not wasted implementing a system that staff will avoid using or use ineffectively (Tsai et al., 2019). Additional benefits of successful EMRS implementation include efficiency with communication among multiple professionals (Lieu et al., 2019), improved usage with portability for employees (Modena et al., 2018), more organized information input (Sushil and Raziuddin, 2018), patient record data storage (Zhang et al., 2021), increased protection of data for patient privacy (Rittenhouse et al., 2017), and improved employee communication with patients using features like PHR (Hawthorne & Richards, 2017). HCMs can keep employee morale high, patient satisfaction high, and also maintain adherence to documentation standards according to federal guidelines (Howard, 2020). Leaders in health care ensuring that employees are well-trained and are provided with the proper resources can increase the chance of successful EMRS implementation (Bergquist et al., 2020).

Transition

I elaborated on the problem statement and the research question in section 1. I then discussed the purpose of my study, which is the overall reasoning behind my research. Other areas covered in Section 1 were the background of the problem, nature of the study, interview questions, conceptual framework, operational definitions, assumptions, limitations, and delimitations, and significance of study. I then concluded Section 1 with a review of the literature.

In Section 2, I discussed the role of the researcher, participants, research method and design, population sampling, ethical research, data collection, data organization techniques, and data analysis. I then concluded Section 2 by elaborating on the reliability and validity of the study.

Section 2: The Project

In Section 2, I discuss the project. I elaborate on the purpose statement, my role as a researcher, and the participants involved in my research study. I then follow-up with a review of the data collection instruments, data organizing techniques, data analysis, reliability and validity. There are additional topics discussed along with the transition statement to conclude the section.

Purpose Statement

The purpose of this qualitative case study was to explore the strategies HCMs in outpatient clinics used to successfully implement EMRS in their organizations. The targeted population consisted of six rehabilitation HCMs in clinical settings, located in a U.S East Coast city, who have successfully implemented EMRS in their clinical departments. This population was appropriate for my study because HCMs in outpatient clinics can properly implement EMRS to achieve improvements in employee and organizational performance. The implication for social change is the higher potential for EMRS implementation success in outpatient clinics, thereby decreasing societal health care costs, optimizing health care information management, and potentially increasing the possibility of health care positive outcomes for the community, which would improve the patient's wellbeing.

Role of the Researcher

My role was to gather data that addressed the specific business problem, in order to help future HCMs discover strategies to successfully implement EMRS in their organizations. Researchers assume responsibility as investigators by collecting data using

qualitative methods such as interviews with open-ended questions (Krish et al., 2017). To collect data, I first found the right participants who could bring relevant insight and information to solving the business problem. I chose interviews as my primary method to collect data from the HCMs (see Appendix: Interview Protocol). I selected participants who successfully implemented EMRS in their organization using a telephone script.

I did not have any previous personal or business relationships with the participants in this study. My knowledge of the topic stems from an extensive analysis of EMRS in rehabilitation health care settings. I was then able to further recognize the problem through an extensive review of the literature.

Researchers use the Belmont Report to review the basic principles for protecting human subjects in research (U.S. Department of Health and Human Services, 1979). I adhered to the principles in the Belmont Report to ensure respect for others, beneficence, and justice. I followed the Belmont report principles to enhance ethical compliance by using an informed consent form, which included disclosures of risks and benefits. The study did not include groups that were vulnerable, such as the sick, economically disadvantaged, or racial minorities. The Walden IRB board members approved this study before I conducted my field research (approval number 01-21-20-0490264).

Researchers and participants personally interacting with each other in a study can create bias, which can alter the conclusion (Hesse et al., 2019). Although I reviewed data through a personal lens, I mitigated bias by using bracketing. Researchers use the bracketing method to mitigate the chances of preconceived notions, personal experiences, and biases about a research topic (Hesse et al., 2019). Stemming from previous

experiences, researchers may have predisposed views regarding a study topic (Hesse et al., 2019). Researchers using the bracketing process can eliminate the emotional attachment, which can skew results (Hesse et al., 2019).

I prevented bias and controlled each interview by developing and following an interview protocol. A qualitative researcher should ensure that the interview questions align with the population and research question to elicit detailed information (Hesse et al., 2019). The rationale for an interview protocol was to confirm that each interview question would help me drive answers to my overarching study research question. I did not elicit information that went beyond the research question. I utilized semistructured interview questions to allow an open discussion to occur in a structured format.

I supported every decision with a scholarly peer-reviewed article or seminal source. The purpose of supporting qualitative research with peer-reviewed sources was to justify the information obtained using past studies. I also vindicated the research with peer-reviewed sources to check for validity and suitability for publication. I carefully selected peer-reviewed sources to support and validate the purpose of the study.

Participants

According to Hesse et al. (2019), researchers should choose the right participants with qualitative research to derive accurate data. The participants of my research study met the following eligibility criteria: (a) HCMs had experience in implementing EMRS, (b) each HCM currently managed their practice in the U.S East Coast city area, (c) the HCMs had at least 1 year of successful EMRS implementation and utilization, (d) the EMRS was currently being utilized in an operational health care practice.

The participants' characteristics must align with the research question for proper validity and reliability of results (Mills, 2018). As suggested by Mills (2018), I chose HCMs with characteristics aligning with the research question. The purpose of choosing HCMs as participants was to ensure that all supervisors had expertise in EMRS implementation. Therefore, I did not include clinicians as study subjects. I ensured that the criteria for choosing the participants aligned with the research to ensure validity, as suggested by Mills (2018). I derived data from participants who were credible, with demonstrated success in EMRS implementation.

Ngugi et al. (2018) suggested a nonprobability sampling method for researchers to gain access to participants, called the snowball method. As recommended by Ngugi et al. (2018), I used the snowball method of sampling to gain access to facilities and recruit participants who had demonstrated successful EMRS implementation. I also obtained approval from management of the organization in each case before interviewing participants, as suggested by Ngugi et al. (2018). After I gained organizational access and the necessary permissions, I invited prospective participants to be interviewed via face-to-face contact, telephone, or via e-mail.

I built a working relationship with the participants using open and honest communication. I initiated communication with the participants through an open invitation, another strategy recommended by Mills (2018). Then, I requested the participant's contact information to continue communication and ensure comfort prior to the interview. Through a structured plan to start and engage communication, I developed good rapport with my participants to derive appropriate responses during interviews. The

HCMs I interviewed had direct, hands-on experience with the successful implementation of EMRS is their respective organizations.

Research Method and Design

Research Method

Researchers are able to obtain information based on human experiences, and elicit more specific information for a study, using the qualitative research method (Berger, 2015). Qualitative researchers can receive detailed responses from participants, decreasing the possibility of superficial answers based on emotion (Park & Park, 2016). Qualitative researchers explore areas of importance to gain an understanding of an underlying opinion, reason, or motivation (Rutberg & Bouikidis, 2018).

Alternatively, quantitative researchers generate hypotheses and compare different variables by computing data to generate results (Depaoli et al., 2018). The researcher quantifies data to determine if a hypothesis is supported (Park & Park, 2016). The quantitative method was not appropriate for my research study because I explored the participants' reasons, opinions, and motivations regarding my topic. I needed to understand qualitative study components to gather data based on the participant's experiences. Therefore, I did not choose the quantitative research method for this study because that method involves computational, statistical, and mathematical tools to derive results.

In a quantitative research study there are many designs that can be used, including descriptive, correlational, quasi-experimental and experimental approaches (Park & Park, 2016). Researchers using an qualitative research methodology can obtain responses from

the participants that are more in-depth. A combination of these two methods is referred to as mixed methods.

According to Izgar and Akturk (2018), mixed methods researchers analyze, collect, and interpret data using qualitative techniques and quantitative strategies. Mixed methods researchers can extend the findings if one approach is not enough (Schrauf, 2018). Mixed methodology researchers collect both types of data, which could lead to more complications (Strudsholm et al., 2016). I did not choose mixed methods because I did not intend to use statistical analyses as an additional component to the qualitative approach. Therefore, my choice of the qualitative methodology was the appropriate method to collect data for this research.

I chose to use the qualitative method to investigate the experiences of a group of people in a certain area or field. I used qualitative coding and theming techniques to organize collected data during analysis. Researchers can use focus groups, individual interviews, observations, and analysis of verbal and textual data (Park & Park, 2016).

Research Design

Multiple case study research designs are unique in that the researcher can investigate a topic for an extended period (Hesse et al., 2019). For multiple case study, the investigator is able to develop an in-depth analysis of specific cases in multiple settings. The analysis of these cases in different settings and using investigative methods is one of the roots of qualitative research (McAlearney et al., 2017). I compared the multiple case study design to three other research designs, which were phenomenology, ethnography, and narrative (Mills, 2018). I chose the case study design to personally

analyze the unique experiences HCMs have with EMRS implementation. In this multiple case study, I reviewed the detailed experiences of subject HCMs who successfully implemented EMRS and then carefully analyzed the data. My goal in using the case study research design was to collect, analyze, and present data fairly and accurately.

A phenomenological design is used to study how people experience a phenomenon (Larkin et al., 2018). Qualitative researchers who use phenomenological designs may try to describe the significance of an individual's lived experiences with a phenomenon (Park & Park, 2016). Therefore, the purpose of a phenomenological study is to set aside preconceptions about a person's lived experience to understand the phenomenon (Mills, 2018). I did not use the phenomenological design because I do not consider EMRS implementation strategies to be a phenomenon, or an extraordinary occurrence.

The ethnography design is a qualitative method where researchers observe and potentially interact with the participant's real-life environment (Palmer et al., 2018). Qualitative researchers using the ethnographic research design are observing societies from the participant's point of view (Kassan et al., 2020). The qualitative researcher using ethnographic design would be studying cultures of people for an extended period (Kassan et al., 2020). I did not need this type of design because my study was not long term and because I did not explore the customs and cultures of my participants.

Lastly, qualitative researchers using the narrative design listen to stories told by participants, record the data, and analyze the information (De Vries, 2018). The narrative design is an inquiry-based method in which the researcher studies the life stories of

individuals (Barabasch, 2018). I did not intend to investigate the series of events that make up the life stories of my participants. I collected data based upon participant experiences with EMRS, which did not include life story narratives. Therefore, after considering each of the possible designs, the multiple case study design was my best option.

I achieved data saturation by ensuring that the participants in the study provided enough information to the point that there was redundancy in responses. Data saturation is achieved when the researcher is not encountering any new information after analysis is completed (Hesse et al., 2019). The researcher can determine the sample size as sufficient for complete data analysis once data saturation has occurred (Lowe et al., 2018). Researchers can use data saturation as a good sign that data collection was sufficient for the research study (Park & Park, 2016). Therefore, the goal of data saturation is important, as it will lead to a higher quality of research and impact content validity (Lowe et al., 2018).

Population and Sampling

The research population was individual HCMs who had success implementing EMRS in their respective organizations. I used criterion sampling because I could select cases with some predetermined criteria of importance (Mills, 2018). As the researcher, I relied on my judgment when choosing contributors. The participants had to have experience with strategizing how to successfully implement EMRS and promoting adoption to the staff who were experienced with health care provision. I used the point of data saturation to determine the number of participants because I could then indicate

when there was sufficient data for the analysis of my study. At that point of data saturation, the need to interview additional subjects was no longer required.

I use a step-by-step procedure to identify participants and conduct interviews my research study. I used the snowball sampling method to identify subjects in health care facilities and recruit participants who had demonstrated successful EMRS implementation. As suggested by Ngugi et al. (2018), the purpose of choosing the snowball sampling method was to reach populations that were difficult to sample compared to other methods. The researcher can also use the snowball sampling method to discover populations that are difficult to reach (Ngugi et. al, 2018). Then, I conducted a face-to-face meeting or telephone call so that I could understand the participant's credentials, where I determined whether they should participate in the interview using a telephone script. Following that determination, I then gave each participant the consent form and confidentiality agreement to understand the interview requirements.

The next step was to interview the participants in a quiet environment where I could conduct the interview with little to no interruptions. Qualitative researchers should understand the importance of developing a healthy environment that encourages interviewees to share insightful data and to ensure ethical standards in research are followed (Hershberger & Kavanaugh, 2017). I conducted interviews and asked questions to obtain information from participants regarding their successes in EMRS implementation. My interview questions were based on EMRS experiences and perceptions on the current climate of health care provision. The interviews were at least 45-60 minutes long where the participants were expected to provide clear and accurate

responses. Therefore, it was imperative that I ensured that study subjects were comfortable so that I could facilitate good dialogue to achieve data saturation.

Ethical Research

I used research ethics to govern the standards of conduct for my study. I distributed an IRB informed consent form to all participants involved in the study. In the consent form there was a description of the purpose of the study, instructions the participants had to follow, and the risk/benefits of participation. The IRB consent form also included instructions regarding participants' compensation, rights to confidentiality, and their right to volunteer or withdraw from the interview process, as suggested by Mills et al. (2018).

I provided instructions in the consent form on how the participants could withdraw from the study at any point and without giving advance notice. I adhered to the Walden University and IRB ethical guidelines at all times during the research study process by ensuring that each participant knew the purpose of the study and had provided me a signed informed consent form before proceeding. I did not compensate the HCMs who participated in my study. After the interview process, I sent a letter expressing gratitude and appreciation for their participation in the study, as well.

Researchers must ensure that privacy is always maintained during the research process to protect the participant (Ingham-Broomfield, 2017). I ensured that the information shared remained private and was not disclosed to any outside party. My responsibility was to maintain confidentiality by never attaching participants' names or organizations to their responses; numerical aliases were used instead to differentiate

between participants. I ensured confidentiality by storing the participant information securely on an Apple cloud storage device. I informed the HCMs that I would not disclose their names or places of work in the study report, as suggested by (Ingham-Broomfield, 2017). Lastly, I planned to keep all the information collected in a secure place for 5 years to ensure confidentiality of the contributors involved in the study and adherence to information storage guidelines. The final doctoral manuscript includes the Walden IRB approval number (01-21-20-0490264).

Data Collection Instruments

The primary data collection instrument was me, by retrieving the participants' responses, using the 10 open-ended questions and follow-up questions to gather the information (see Appendix: Interview Protocol). I elicited information from the HCMs regarding EMRS implementation strategies using the interview protocol as a secondary data collection instrument for my qualitative research method and case study design. I used the semistructured interview style to engage the participants to talk about new ideas and strategies that could be relevant to solving the business problem, as suggested by Aspers and Corte (2019). I first developed a rapport with the participants that increased comfort during the interview process, which was important to elicit rich and robust data. Then, in a relaxed and quiet environment, I asked the participants the interview questions cultivating good communication (see Appendix: Interview Protocol).

I performed member checking after the interview process and at the conclusion of the research study. Researchers use member checking to validate the accuracy and correct understanding of the collective data (Gudkova, 2017). After the interview, I restated the

information and then questioned the participant to determine the accuracy of the information provided. The participants were then asked to confirm if the data was collected accurately, reflecting their views and feelings regarding the research topic. During member checking, if the information I gathered did not correctly reflect the participant's views, then the data would have lacked accuracy, as stated by Aspers and Corte (2019), thus, when necessary, I requested that the participant further clarify their responses to the questions. If the information did not accurately reflect the participant's views, then the data would have lacked credibility, as mentioned by Aspers and Corte (2019), thus I requested that the participant further clarify his or her responses to the questions asked, when necessary. The confirmation process was to ensure that the data was clear and accurate. Through member confirmation, I was able to double-check that the information collected was correct and would be accurately transcribed.

I performed a transcript review to enhance the reliability and validity of data collection for my research study. I reviewed the data transcripts to code and search for themes that supported the use of successful strategies for EMRS implementation. After reviewing all the transcriptions, I generated the results needed to understand the business problem.

Data Collection Technique

I collected primary data using the semistructured interview technique. I also collected corporate documents and wrote notes as supplementary data collection. I conducted in-depth interviews face-to-face, over the telephone, or with online video call using a voice recorder and note-taking. I played back the voice recordings of the

interviews, and transcribed the information gathered. Gudkova (2017) elaborated on data transcription as a necessary method to analyze all information communicated between participants for proper analysis. The step-by-step process for the data collection included (a) re-introducing myself before starting the interview, (b) discussing the interview topic, (c) explaining the interview process, (d) posing each question, (e) allowing time between each question posed for a response, and (d) providing a summary and closing statement.

As recommended by researchers Lowe et al. (2018), I used voice recording so that I could keep track of all verbal communication in the interview process. The corporate documents and note-taking were supplementary to the voice recording (Lowe et al., 2018). The researcher can use the combination of all three techniques to analyze the information thoroughly and ensure that data saturation can be obtained (Mills, 2018).

I chose to record participants' responses while using note-taking techniques. The interviewer will need to be vigilant when writing notes because the process can hinder communication with the interviewee (Aspers & Corte, 2019), which can present a problem when attempting to gather information as accurately as possible. For example, the interviewee might have been more comfortable with more eye contact during the interview, which can be impeded when note-taking is involved in the process. I preferred to use a recording device as a way to refer back to the interviews at a later date to ensure that the information given by the HCMs was reported accurately.

Data Organization Technique

I secured all data using an Apple cloud storage system. Cloud computing has been beneficial for users to utilize network services globally due to high storage capabilities,

security, and cost effectiveness (Lele, 2019). In addition to cloud computing, I used reference manager software to store my research logs and references. Researchers can use reference managers to keep track of and organize references from journals and other articles (Fairclough & Thelwall, 2015). I could also save and store portable document format (pdf) files onto the reference manager software program for immediate access. Lastly, I used a data transcription software tool called NVivo to supplement my transcription of the data via voice recording devices. I intend to maintain the raw data in a locked storage hardware device for 5 years.

I used my laptop and cloud-based server to save and store all of my research literature and data. Qualitative researchers can benefit from storing relevant research articles to support the findings of their study (Arora, 2017). The research data was conveniently accessed using these tools to help me illustrate the findings of my study.

Data Analysis

The data analysis process of a qualitative research case study is the use of triangulation (Abdalla et al., 2018). There are four types of triangulation which are (a) methodological triangulation, (b) theory triangulation, (c) investigator triangulation, and (d) data source triangulation (Abdalla et al., 2018). I chose one of the two types of methodological triangulation which was the within-method, and between-method forms of methodological triangulation (Lowe et al., 2018). The between method is when a researcher uses both qualitative and quantitative methods to collect and analyze data (Lowe et al., 2018). However, I only used a qualitative approach for triangulation.

Therefore, I used a within-method of triangulation and my two sources of data collection were subject interviews and corporate documents.

I performed a sequential process for data analysis after performing methodological triangulation for my research study. As suggested by Renz et al. (2018), I used the deductive approach by analyzing the data using five steps which were (a) data transcription, (b) data organization, (c) data coding, (d) data validation, and (e) data conclusion. I performed data transcription, where unstructured data is gathered in textual form. I then used the NVivo software to analyze data collected from the interview protocol. Next, I conducted data organization, where I grouped the information transcribed based on objectives using the responses gathered from the participants. Subsequently, I performed data coding, where data is categorized based on different concepts or patterns. Then, I used codes to build themes and understand the meaning of the data by assigning categories to similar response-types and grouping the information together. Afterword, I completed data validation, to ensure that the information analyzed and gathered is not flawed. Lastly, I implemented my data conclusion where the findings were illustrated based on the correlations between the data analyzed and the research question.

The qualitative software analysis method was used to critically analyze the data in a graphical portrayal of categorized and coded concepts using NVivo. I then questioned the meaning of recurring concepts, ideas gathered from the codes, and any themes identified. As suggested by Abdalla et al. (2018), qualitative researchers must find the best methods to compress data and categorize all of the information into themes. Next, I

organized the information and compiled a database where I categorized each theme into groups. Lastly, I compared the findings with previous research to justify the study findings.

To summarize the data analysis steps, I identified the key themes and correlated each one with the conceptual framework of this research study, which is Fayolism. As suggested by Goertzen (2017), qualitative researchers focus on the themes gathered from the coding process and correlates the information found with the literature. I correlated each theme found in the data analysis with the five main functions of business management, and the 14 principles of management according to Fayol (1916). As mentioned in the literature review, the five functions of management, according to Fayol (1916), are planning, organizing, commanding, coordinating, and control. The 14 principles of management according to Fayol (1916) are division of work, authority and responsibility, discipline, unity of command, unity of direction, subordination of individual interest, remuneration, centralization, scalar chain, order, equity, stability, initiative, and esprit de corp. Successively, I found each theme in the result findings that correlated with each management function, principle of management, and other research from the literature review.

Reliability and Validity

I addressed dependability by assessing the quality of integrated processes with data collection and analysis. Dependability is important because the researcher can establish that the study findings are consistent and repeatable (Bansal et al., 2018). Moser and Korstjens (2017) stated that researchers can use member checking to enhance the

accuracy, validity, and credibility of a research study, which is why I chose the procedure. According to Lowe et al. (2018), researchers can perform member checking during the interview process to determine the veracity and completeness of each participant's responses. Therefore, I was able to confirm that the participants verified that I understood their comments and I recorded them accurately using member checking.

Qualitative researchers can improve credibility by using triangulation (Morse, 2015). Therefore, my goal was to use triangulation to link the results of this study with real-life experiences to ensure credibility. The qualitative researcher can improve credibility and dependability by following the interview protocol, and member checking (Abdalla et al., 2018). I gave the participants an opportunity to review the questions posed along with their responses. After I generated the transcript, I performed a data analysis via transcription review to detect any inaccuracies. Qualitative researcher should utilize data collection tools correctly to obtain the most accurate results (Aspers & Corte, 2019).

A researcher's study results that can be generalized to other contexts or settings is called transferability (Abdalla et al., 2018). The researcher should be able to demonstrate how the results of the study can be transferred from one location to another (Bansal et al., 2018). I described the environment where I conducted the interviews to facilitate understanding among other investigators who may prospectively want to expand or duplicate my research results. Future researchers can evaluate the need to transfer the results of the study to a different setting, which would demonstrate transferability (Aspers

& Corte, 2019). Therefore, I explained the consistency with my data results throughout my study to relay reliability and validity.

A researcher's study results that can be confirmed by other investigators is called confirmability (Arora, 2017). Confirmability means that the result findings are formed primarily by the participants, instead of the researcher (Mills, 2018). I developed confirmability by performing an audit trail where I explained the process of data collection, interpretation, and data analysis. Researchers attempt to validate their results by documenting the procedures and checking the data throughout the study to validate the outcomes (Bansal et al., 2018). In the same way, I addressed the confirmability of the research study by documenting how the results were generated.

I ensured data saturation by using multiple techniques for data collection and analysis. First, I used voice recording to collect all data obtained from the interview process. Second, I used follow-up questions and elicited responses to help provide detailed information regarding the EMRS implementation process. Third, I chose only participants who fit the predetermined qualifications and could competently contribute to the study**.** Arora (2017) recommended that data saturation can be achieved by using sensible sampling, a good research design, and well-structured research tools, which was the plan for my research study.

Transition and Summary

I described the processes necessary for data collection in section 2. In Sections 1 and 2, I included the participants involved, the research method/design, population, data collection, and reliability/validity processes. In Section 2, I elaborated on the ethical

standards I followed to support the integrity of my study. I illustrated the results of my research study in section 3 and also elaborated on how my research findings apply to business practice.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative multiple case study was to explore the strategies HCMs used to successfully implement EMRS in their outpatient health care facilities. I derived the data from interviewing six HCMs and reviewing their organizations' related documentation. I was able to show methods that the HCMs used to successfully implement EMRS in their outpatient health care facilities from the result findings.

Presentation of the Findings

The research question I posed for this qualitative multiple case study was: What strategies do some health care managers in outpatient clinics use to successfully implement EMRS in their organizations? The HCMs that were interviewed were from six rehabilitation facilities in a U.S East Coast city area, where EMRS was successfully implemented in their clinical departments. I identified five themes that were common among the six HCMs. I considered key data as themes if they were part of the findings in at least three of the HCM interviews. I protected the identity of the participants by assigning them these identifiers: HCM1, HCM2, HCM3, HCM4, HCM5, and HCM6 to ensure confidentiality. I discovered the themes based on the codes that I placed on certain responses. Then, I categorized each particular group of codes. I explained how the key themes found in the research study correlates with Fayol's five functions of management which are planning, coordinating, organizing, commanding, and control. I also elaborated on the findings that matched Fayol's 14 principles of management which are division of work, authority and responsibility, discipline, unity of command, unity of direction,

subordination of individual interest, remuneration, centralization, scalar chain, order, equity, stability, initiative, and esprit de corps.

Theme 1: Effective Internal Communication

In the academic literature review, Furusa and Coleman (2018) suggested that communication is an internal factor that that HCMs using during EMRS implementation. According to a study by Lee and Queenie (2020), employees and managers using internal communication improved relationships in health care. Fayol mentioned that managers and employees can improve the possibility that goals are accomplished by planning and coordinating functions through communication (Mijin et al., 2019). In Theme 1, HCM1, HCM2, HCM3, HCM4, HCM5, and HCM6 realized the benefits of employing coordination and planning management functions, by collaborating with their staff using communication skills.

Table 1

Effective Internal Communication

Internal Communication	N	% frequency of occurrence
Team Meetings	25	45.45%
Staff Training	18	32.72%
One-to-One interaction	12	21.81%

Team Meetings

I collected data from HCM1, HCM2, and HCM5 and they discovered that team meetings were essential in helping to improve EMRS implementation. According to Smart et al. (2018), managers can use team meetings to coordinate with staff and understand different viewpoints to focus on an agenda. HCM2 stated:

> So, you have to strategically plan out the meetings and prioritize what's more important to train them in, so eventually everyone will make adjustments to the change. I always open the floor for questions, concerns and also what can I do to make things work a little better.

According to Aghdam et al. (2019), managers can use multidisciplinary team meetings (MDT) to improve collaboration and planning of functions when compared to other traditional methods. Aghdam et al. (2019) reported that managers also used MDT to improve medical competence with treatment. HCM1, HCM2, and HCM5 mentioned that team meetings were important to their EMRS implementation and elaborated on the approach. HCM2 stated:

> …and in addition to the meeting, addressing certain things as they come up. Anything that’s updated, I have to update them on it as well because sometimes they change certain ways of doing things or they offer certain features, and when that comes up, I'll bring it up to them. One thing I have to say as a business owner, I take responsibility if something is not understood. So I have to find a different approach to make it make it register.

In my research study, HCM1, HCM2, and HCM5 mentioned that team meetings would have to be frequent in the beginning of EMRS implementation so they could ensure that staff were able to comprehend the tools needed for proper documentation. The HCMs explained that scheduling the team meetings according to staffing availability was also important due to the busy work schedule. Therefore, consistent with the findings of Aghdam et al. (2019), the team meetings were an important tool to improve planning among members of the organization. According to Sauder et a. (2020), a team meeting is a form of active learning that can be used to enhance content learning and improve skill development. Sauder et al. (2020) illustrated that team meetings involve problem-based learning, where personnel can discuss real-world issues and individuals are required to have open-minded dialogue to reach goals (Sauder et al., 2020). As mentioned by van Dongen et al. (2017), managers can use interprofessional team meetings to help with planning for future needs of an organization by sharing information for organizational needs.

HCM 5 stated:

> We usually would have either a quarterly, or a monthly meeting in the office, where we plan our agenda for documenting with WebPT. Just talking about how we're billing, how we're using WebPT, how our office is running. Again, everything you need for your office is basically run through the EMR, not just so much documentation for patients, but also visits you're seeing per month, that you're seeing per week, emails you're seeing.

According to Eliyana et al. (2019), managers can perform organizational planning to improve job satisfaction and employee performance. HCM2 mentioned:

> Well, during staff meetings, I plan weekly staff meetings and I always go over old topics. All things that we discussed regarding EMR or other issues, any issues that was put fourth, concerns and also what can I do to make things work a little better. As a team we would continue to talk about our plans for improving documentation so that we don't have any delays with billing and to improve communication with other parties involved in the child's treatment.

Staff Training

The next subtheme I discovered for Theme 1 was staff training. HCM3, HCM4, and HCM5 stated that they used staff training to help employees understand the protocols needed to document and bill for rehabilitation services using the EMRS. The manager can decide which methods can be deployed to enhance staff training. Fayol (1916) emphasized that manager coordination with staff involves determining the timing and sequencing of activities so that there is cohesion within the organization.

Waqanimaravu and Arasanmi (2020) mentioned in their study that employee perception of the work environment can be positively altered through training. HCMs can use staff training in a variety of sectors to improve service quality (Waqanimaravu & Arasanmi, 2020). According to Martins et al. (2019) managers can use online training to help staff carry over job skills because content is accessible at any time. HCM5 mentioned that online training was convenient because employees could access learning tools for the EMRS on their spare time. HCM5 stated the following, "Again, every web-

based program has to have a training program. WebPT has multiple trainings for you to go through, that are all on their actual computer systems, that take you through how to navigate the systems."

The manager looks at multiple aspects of training, including how the employees will feel about the training and systems. According to a study by Brabson et al. (2019), staff training resulted in lower annual turnover rates for clinicians, supervisors, and administrators. Managers using staff training may decrease employee turnover rates because the teaching methods associated with this tool limit ambiguity (Brabson et al., 2019). HCM3 stated the following:

> It definitely took some time to complete. There was a lot of training and coordination amongst staff. We had to basically take all of our current caseload and implement them one by one into the system and then update as you go along. But it was definitely a long process trying to get everybody into the system correctly and which also turned into like a big kind of a problem at first, too, because things were not being implemented correctly. However, once everyone became comfortable through practice and repetition, the process was more seamless.

One-on-One Interaction

In relation with coordination, HCM1, HCM2, HCM3, HCM4, HCM5, and HCM6 mentioned that using one-on-one interactions improved the staff usage with EMRS. The HCMs stated that there were times certain staff members did not comply or understand the protocols with the EMRS during staff trainings and team meetings, and thus a one-on-

one interaction was required. Behrens and Kret (2019) found that employees tend to be more cooperative with one-on-one interaction for reliable feedback compared to non-one-on-one interaction communication. HCM1, HCM2, HCM3, HCM4, HCM5, and HCM6 found that one-on-one interactions were helpful in remedying any remaining issues that were not resolved with the previous strategies implemented in the staff training and the team meetings, which justifies coordination being important to ensure that objectives are achieved in an efficient manner. According to Eliyana et al. (2019), HCMs using one-on-one interactions can help resolve more difficult problems that require personal or intimate dialogue. HCM5 stated the following:

> There were moments where an employee would request a private conversation with me to further discuss matters about our system. During the conversations, he would tell me his concerns cause he did not feel comfortable bringing up questions during staff meetings. I guess because he did not want to look incompetent in front of his colleagues.

HCM1 mentioned that he would have to request personal one-on-one interactions with any staff member who did not follow directions during team meetings. HCM1 stated the following:

> There were certain times during the process where I would have to have a personal conversation with staff members who refused to cooperate with documentation rules. Sometimes I would find employees copying and pasting notes when they document, which is not good. However, I have yet to enforce any disciplinary action. Thankfully.

Theme 2: Overcoming Barriers

One of Fayol's five functions of management included control, which is checking the overall process against organization plans and taking corrective actions when necessary (Fayol, 1916). Ngugi et al. (2018) found that HCMs must take remedial actions when problems occurred during the EMRS implementation process. Therefore, I discovered the theme overcoming barriers during data analysis. Specifically, I observed that HCM1, HCM2, HCM3, HCM4, HCM5, HCM6 used control as a management function during the EMRS implementation process when three problems occurred, which were, technology challenges, resistance from staff, and abrupt interruptions. According to Yusof and Sahroni (2018), although health information systems (HIS) errors are common and inevitable, the problem can be managed, once identified. HCM1, HCM2, HCM3, HCM4, HCM5, HCM6 in my research study encountered issues during EMRS implementation that required them to adjust their plans and take corrective action to improve user efficiency and billing to insurance payers.

Table 2

Overcoming Barriers

Overcoming Barriers	N	% frequency of occurrence
Overcoming Technological Challenges	17	44.73%
Overcoming Resistance	12	31.57%
Overcoming Abrupt Interruptions	9	23.68%

Overcoming Technological Challenges

HCM1, HCM3, HCM4, and HCM6 found that common issues happened with technological errors such as data entry, retrieval, and transferring of information (Yusof & Sahroni, 2018). Managers transferring information from an older documentation system to a new system can cause issues within a business (Yusof & Sahroni, 2018). HCM1 elaborated on this concept by explaining:

> In order to have everybody, the active patients set up in the new system,… you had to manually bring over some of the notes that were in the old system. This was a time consuming process that had to be completed to help our staff document notes to the right client.

HCM1, HCM3, HCM4, and HCM6 mentioned the task of taking corrective action by modifying templates to match their health care organizational needs. System design based on standards and processes is important to prevent errors (Barrett & Stephens, 2017). HCM1, HCM3, HCM4, and HCM6 mentioned ensuring data within the EMRS templates was computable so that information was transferrable to the proper channels. According to Allen-Graham et al. (2018), managers may use system testing with hardware/software, network, and applications to understand the full scope of the organization's needs to prevent errors from occurring. Similarly, to prevent future medical errors, HCM1, HCM3, HCM4, and HCM6 in my study tested software in EMRS templates to ensure that data was transmitted properly.

HCM4 stated the following:

> There are some templates that are geared towards OT too but for the most part, are very physical therapy (PT) and occupational therapy (OT) driven. So sometimes you're having to modify templates to make it more speech driven or sometimes just having to modify it just to your professional clinical styles and preferences. So that's a barrier in strategizing how and when you want to implement stuff with the electronic documentation system.

Overcoming Resistance

The second subtheme I identified was adapting to resistance. HCM1, HCM2, HCM4, and HCM6 mentioned that staff would complain about performing extra duties on their own to facilitate successful EMRS implementation because they had no time to complete tasks during the work schedule. According to Bertagnolli et al. (2020), managers may expect to encounter a steep learning curve when educating and correcting employees to where some may take time to adjust to EMRS implementation. HCM4 stated the following:

> Yeah. There was some difficulty because they were used to taking notes first and then going in, sitting down and writing the report. There was some transition in them stopping with the hand written techniques and switching to entering information on the iPad or computer on wheels. So that took a little time with transitioning. I would say maybe about a month.

HCM1, HCM2, HCM4, and HCM6 discussed how there would be resistance towards performing duties and that their main solution to control the problem would be to provide more time to staff to adjust with the EMRS. HCM1, HCM2, HCM4, and HCM6

used training, one-on-one interaction with employees, and EMRS demonstrations, which factored into increasing usage time with the EMRS and, therefore, improved the transition process. According to Brabson et al. (2019), managers should take responsibility in ensuring employees understand the EMRS. According to HCM2:

> As a business owner, I take responsibility if something is not understood . So I have to find a different approach to make it register. I have to ask does everyone have their own way of learning? So I have to figure out , OK , what's the better way to make this person understand? If it means OK , probably that person needs all the help from technical support and maybe I need to schedule a tutorial with them directly.

Fayol (1916) mentioned in one of his 14 principles, centralization, where authority is dispersed throughout an enterprise. Fayol (1916) further elaborated that an employee's individual circumstances determine the degree to which authority is accepted. HCM6 mentioned that staff would have difficulty with certain areas of the EMRS which would lead to negative results, such as poorly written notes.

HCM1, HCM2, HCM4, and HCM6 mentioned that sit down conversations, increased time with note writing, and the reiteration of goals that needed to be accomplished were positive strategies to overcome employee resistance. HCM1, HCM2, HCM4, and HCM6 used the strategies to ensure that employees had time to take ownership of the work that needed to be completed, which is what Fayol emphasized with centralization. HCM6 using centralization, which according to Fayol (1916) emphasized that leaders reiterate to the employee the organizational goals, therefore,

allowing the staff member to take authority with decision making for EMRS documentation. According to HCM6:

> I would allow my staff to understand to protocols with our documentation system. As they would get comfortable with the new system I would allow them to take on the responsibility of getting each note completed in a timely manner. I would make sure they understood the importance of progress notes and evaluations being submitted properly before I gave them the obligation.

According to Weaver et al. (2020), managers of health care facilities should have control over issues that may arise with EMRS implementation such as lack of computer literacy, and decreased familiarity with EMRS tools. Fayol (1916) also elaborated on managerial issues, mentioning that managers have to evaluate and ensure staff follow through with commands or else the organization's longevity will be negatively impacted. HCM2 mentioned that he needed to constantly reiterate to personnel to sign their name after a therapy service document or else the organization will not get reimbursed. HCM2 noted, "The communication is something that I always have to present in meeting; reminders of, you know, putting your initials after a note so someone will know who wrote the note."

Overcoming Abrupt Interruptions

HCM1, HCM5, and HCM6 had to overcome abrupt interruptions with EMRS implementation such as internet and system failure. HCM1, HCM5, and HCM6 mentioned that whenever unanticipated disruptions occurred, there had to be a plan of action so that productivity was not stalled. HCM5 mentioned that he would have the staff

use flow sheets when EMRS was down and when the systems was running again, the staff would transfer the notes back into the electronic system. HCM1, HCM5, and HCM6 also mentioned internet failure as a common problem with the EMRS to where physical storage files would be made to save the note until the internet reconnected. As mentioned by Furusa et al. (2018), managers can most likely anticipate abrupt interruptions with EMRS, so there must be a plan of action to prepare for such events. According to HCM5:

> That's the risk you take now with EMR, is that you're dependent on resources to make sure your systems work well. If they don't, there has to be a back-up plan to make sure that, if it does go down, for whatever reason, we have a backup plan to make sure that we always know who's coming in, what they're being treated for, and what to do. That's why we have these flow sheets with the patient's name, because at least the flow sheet will let us know they're here for, based on diagnosis, based on the MD they're seeing, based on their insurance, based on the body part they're treating, and what their program is. Once the server comes back up, we can always check it and make sure we document their notes appropriately. But, you have to have some system in place to use the EMR, but also just be prepared for a situation with the EMR not to be accessible.

Vos et al. (2020) mentioned that system failure is almost inevitable during EMRS implementation, therefore, it is the manager's responsibility to adjust to future problems. HCM1 stated the following:

> During my time with this new system, I think we had two occurrences where it went down. I would have everyone write their notes onto a secondary system that

saves everything onto a hard drive and once the our primary system is back on we would transfer everything over.

Thus, my result findings for subtheme "overcoming interruptions" show that HCM1, HCM5, and HCM6 had a secondary plan if the EMRS abruptly failed which helped to maintain work flow. Therefore, secondary options to adjust to abrupt EMRS interruption may help with future implementation.

Theme 3: Effective Time Management

HCM1, HCM2, HCM3, HCM4, HCM5, and HCM6 had to designate time for staff training and managerial optimization of the EMRS according to the organization's needs. Fayol's five functions of management include planning, meaning that managers must strategize and arrange every essential part of their business to maintain stability, which takes time and dedication (Fayol, 1916). Fayol (1916) emphasized that managers must plan to strategize and execute their objectives in a timely manner. According to Guo et al. (2017), health care providers benefited from increased time to utilize and understand new EMRS for increased documentation efficiency.

Table 3

Effective Time Management

Time Use	N	% frequency of occurrence
HCMs Designating Time To Staff For Training	19	46.34%
HCMs Using Time To Modify and Improve EMRS	22	53.65%

HCMs Designating Time To Staff For Training

Fayol's 14 principles of management include initiative, which means that managers ensure employees are given a certain amount of freedom to carry out the organizational plan (Fayol, 1916). HCM1, HCM2, HCM3, HCM4, HCM5, and HCM6 mentioned that they gave their employees the proper amount of time to understand the EMRS system. According to Hashim and Khan (2018), managers should know an employee's needs with regards to coaching EMRS usage. However, due to the high productivity demands, sometimes EMRS training would not be enough to get employees acclimated to the technology. The common course of action by the managers was to allow the staff to take any additional time, as needed, to complete documentation.

According to Fish and Guha (2020), timely planning for EMRS implementation is essential for a successful health care practice because it can improve patient outcomes due to efficient transference of information. HCM2 stated the following regarding designated time given for EMRS training:

> I would say roughly 4 to 6 months. So, if they're not here every day it's not like a repetitive thing every day that they're having exposure to. But if they're not here every day, then there's a gap in between and sometimes they might forget certain things.

According to Fayol, when managers use strategies such as planning for tasks and future problems in a timely manner, businesses have positive outcomes (Fayol, 1916). Managers who use sufficient planning can ensure proper EMRS deployment (Fish & Guha, 2020). HCM1, HCM2, HCM3, HCM4, HCM5 and HCM6 often spoke about staff

EMRS training time being difficult to distribute due to high productivity needs, however the training time was successful.

HCM4 stated:

> In the beginning I implemented documentation time within their day so they could adjust to the new documentation system. And then after about a month or so then I was able to take it away and they were able to document within the session time without the extra time set aside for documentation.

HCMs Using Time to Modify and Improve EMRS

In the second subtheme, HCM1, HCM2, HCM3, HCM4, HCM5, and HCM6 used their time to modify and improve EMRS. As I continued to analyze the data, I saw a pattern in responses where the participants stated they had to constantly adjust the tools that were originally in the EMRS, specifically, the templates. According to Lambooij et al. (2017), managers may benefit from adjusting EMRS tools to improve employee satisfaction and organizational productivity. HCM1, HCM2, HCM3, HCM4, HCM5, and HCM6 mentioned their purpose for adjusting the templates was to ensure that the EMRS had data collection tools that coincided with the disciplines of their professional staff. HCM1, HCM2, HCM3, HCM4, HCM5, and HCM6 also mentioned they had to adjust the tools in the EMRS for billing needs so that the organization would receive reimbursement from insurance companies. HCM2 illustrated the need to adjust EMRS tools changes by saying:

> Well, I think as an administrator, the change is hard also because you got comfortable with the system, your time is an issue and you have to relearn it. Re-

> learn something new and teach it to your staff. And I think the strategy [or myself would be to learn it in sections; use better time management to learn the system versus rushing it. Because I noticed when I rush through it, I missed certain things that could have helped me save money. Like, for example, what I'm thinking of doing now in terms of having everything in one where, people can pay for it. I wish [I got] it from the beginning, but because I thought I was saving by still having a separate credit card system where people can pay, I didn't. But in the end, it probably wasn't time efficient because you still have to try to keep track of who paid, who owes. If I use the system that's already in EMR, I can get a spreadsheet monthly to see all that information. So, I waste a lot of money by wasting of time. So, the strategy is to learn everything from top to bottom before making a conscious decision. OK, what part of the EMRS am I going to use or pay for? So, in other words, learn it first. That's a good strategy as the owner in the clinic.

According to Fish and Guha (2020), HCM planning for future problems ahead of time helps to improve EMRS implementation. Fayol (1916) also concluded that it is important for leaders to examine the future of a business and execute a plan of action. HCM1, HCM2, HCM3, HCM4, HCM5 and HCM6 had to be prepared for when EMRS modifications were necessary. According to Rechtman et al. (2019) insurance company personnel require HCMs to have billing codes in their EMRS and for staff to document correctly for proper reimbursement. HCM3 stated:

> The time needed to change certain things in our system can vary. I remember having to update certain billing codes in the system because we were getting patients for occupational therapy that we were not familiar with in our setting. If those billing codes are not up to date in our documentation system, than we can possibly lose a lot of money, which is bad for our clinic.

Rittenhouse et al. (2017) mentioned that HCMs should dedicate time to improve EMRS tools so that information is efficiently transferred to the proper channels for reimbursement. According to HCM5:

> I would spend many hours just reviewing my staff's notes. I would not only give them feedback to correct their notes but I would also try to improve WebPT using the common trends I would find with errors. I believe that if there is a common problem with documentation than it is probably something that we can do to improve the system.

Theme 4: Compensation Improved Productivity

HCM1, HCM2, HCM5, HCM6 realized that compensation was a key factor in improving finances, and documentation. Fayol (1916) stated that one of his 14 principles of management was remuneration*,* which is important to motivate employees. Remuneration is the compensation for received services or employment (Fayol, 1916). According to Shrank et al. (2019), if HCMs provided appropriate reimbursement to health care providers, wasteful health care spending would be decreased. HCM1, HCM2, HCM5, HCM6 saw an increase in employee satisfaction through remuneration, which improved productivity. HCM1, HCM2, HCM5, HCM6 mentioned that their staff

provided quality information in EMRS for insurances to properly reimburse due to proper compensation of monetary and non-monetary benefits. According to Sushil and Raziuddin (2018), managers reducing errors in EMRS is beneficial because this improves insurance reimbursements and financial profits. Fayol (1916) elaborated on remuneration stating that employees determine their future roles with an organization based on monetary or non-monetary incentives.

Table 4

Compensation Improved Productivity

Improvements	N	% frequency of occurrence
Financial Benefits	8	42.10%
Compensation Improving Documentation	11	57.89%

Financial Benefits

HCM2 and HCM6 were able to see improved results with the EMRS regarding increased profits because of better compensation to staff. As stated by Fayol (1916) in my conceptual framework, Fayolism, remuneration is a beneficial factor because employees can be motivated to improve productivity. According to James et al. (2017), managers should follow EMRS guidelines to ensure that all stakeholders in the organization are compensated.

HCM6 stated:

> When it comes to insurance policies, and transfer of application, authorization, and all these things that help pay for every service. They have to know above and beyond EMR, what they're doing. A lot of that is taught from other managers who navigated these systems, and there are trainings that are specific for every single system. So, in order for our organization to increase revenue, we must train and compensate our employees accordingly so that they are motivated to provided quality care and produce results.

According to Mitra et al. (2020), managers can positively influence employee gratification using compensation satisfaction, which lowers the risk of high turnover rates. Leaders in organizations typically ignore proper compensation to employees because of the financial risk involved, without looking at the positive effects payments can have on employee satisfaction (Mitra et al., 2020). HCM2 and HCM6 did mention that increasing compensation to employees was not easy to initiate during the startup phase of business, and EMRS implementation. However, once HCM2 and HCM6 regulated finances, and improved budgets, increased employee compensation was feasible, resulting in better productivity.

HCM2 stated the following:

> I was losing a lot whether it was parents not paying copayments. There was no documentation of missed copayments or notifications of notes that were needed in order to continue authorization. So once my office manager focused on that, created the system in the EMRS where notifications would be sent out or

templates will be created to make it easier for the staff. I was able to gain copayments from the parents and it improved organization of the information. Eventually, I was able to pay my staff more money and things got better.

Compensation Improving Documentation

HCM3, HCM4, and HCM5 elaborated on improving the quality of documentation by increasing compensation to employees. As mentioned by Jindal & Raziuddin (2018), employees are only motivated by their level of needs and the manager should compensate benefits fairly. HCM3, HCM4, and HCM5 explained that when they were able to compensate their employees by the hour instead of fee-for-service, they noticed better quality documentation. According to HCM4:

> In the beginning I implemented documentation time within their day so they could adjust to the new documentation system. And then after about a month or so then I was able to take it away and they were able to document after the session time. I realized that giving my staff the time needed to document during paid time helped improve the quality in notes and insurance reimbursement.

Tung (2018) mentioned that employees are motivated to work hard with a view on enhancing productivity with effective compensation, which is a focus on Fayolism (remuneration). Also, the employer can improve their relationship with the employee with proper remuneration, thereby, improving productivity and finances long-term (Tung, 2018). On the other hand, a study by Samson et al. (2019) found that ineffective employee compensation and lack of continuous improvement culture were one of the significant factors negatively effecting service quality. HCM3, HCM4, and HCM5 in my

research study noted that when they provided non-monetary compensation such as teaching tools, quality of documentation increased.

HCM5 stated:

> I think again, the best way we helped our staff was for us to have in-house training, and focus trainings that are off site, where people can get a chance to ask questions outside of the regular nine-to-five hour. I think it's hard to learn everything during the regular work hours.

Theme 5: Efficient Data Organization

The fifth theme that I discovered in my research study was efficient data organization. HCM2, HCM3, HCM4, HCM5, HCM6 mentioned their needs to have valuable resources, such as personal information and financial data in proper order when using the EMRS. According to Fayol (1916), order is the tenth principle of management where he specifies that managers should arrange material things and workers in the organization to improve business performance. Fayol implied that resources should be structured and arranged so that the organization can function properly for success (Edwards, 2018). According to Cocosila and Archer (2017), data organization is an important benefit for managers during EMRS implementation compared the traditional paper documentation. HCM2, HCM3, HCM4, HCM5, HCM6 indicated that organizing both resources were crucial for billing purposes so that insurances can justify reimbursement.

Table 5

Effective Data Organization

Organization	N	% frequency of occurrence
Organization of Personal Data	13	43.33%
Data Organization With Finances	17	56.66%

Data Organization With Finances

HCM2, HCM4, and HCM6 mentioned the organization of billing codes, which are financial data, are important for insurance reimbursement. The ICD-10 code is a seven-character, alphanumeric code, that classifies injuries and diseases. According to Flasher and Lamboy-Ruiz (2019), health care providers use billing codes to charge insurance companies for specific services. HCM2, HCM4, and HCM6 spoke about the importance of inputting these codes into the EMRS so that their health care providers could write notes illustrating treatment provided with accuracy. HCM2 stated the following:

> Billing codes help us receive reimbursement which is why I am constantly updating the system to ensure we are able to document services. I am fortunate to have a reliable system that organizes this information. The paper charts that we had before were not as organized and we lost lots of money due to mismanagement of files.

Fayolism mentioned the importance of organizing resources to improve business function (Fayol, 1916). HCMs can determine the value of an EMRS by looking at the

technology tools in organizing data for facility operations, finances, and transference of patient records (Rechtman et al., 2019). For insurance payment justification, HCM2, HCM4, and HCM6 discussed how EMRS was important to organizing data, such as authorizations, alerts to indicate insurance caps for reimbursement of services, and calculations according to treatment days.

HCM4 stated the following:

> WebPT is a great documentation system because it helps us with organizing all of our treatment session dates and times, it alerts us automatically when we have missed assessment notes, and tells us when we have maxed out our ability to treat patients based on insurance caps. All of this information helps us to receive reimbursement on time. If we don't have this information organized and given to us in a timely manner it can affect our business.

According to Rechtman et al., (2019), managers used technological attributes from the EMRS to organize financial data, which improved insurance reimbursement. As mentioned by Furusa and Coleman (2018), managers not having all of the proper financial data in place for insurance companies can cause hardships within the health care organization. HCM6 stated:

> There was a time where we lost thousands of dollars in a span of two weeks because we did a poor job in keeping all of our records filed in our system. This is why we go through so many meetings to ensure that our management team keeps track of billing information and that there are no loopholes within our system.

Therefore, the study results for the subtheme, data organization with finances, correlate with Fayol's principle of management, order, due to the HCMs use of EMRS tools to organize billing information for business success.

Organization of Personal Data

HCM3, HCM4, and HCM5 mentioned that the organization of personal data was imperative to improve EMRS implementation. HCM3, HCM4, and HCM5 used EMRS to gather patient's personal information such as home address, age, medical history, scheduled appointments, which is important so that the patient account is documented for health care staff to observe (Anderson et. al, 2017). According to HCM3:

> I was able to track down a patient's secondary address through our system in order for us to order durable medical equipment. The system has made our discharge planning process more efficient compared to before with our paper charts. Prior to our electronic records we would take a longer period of time to complete discharges because we would lose sight of important information. But now we are able to complete things more seamlessly because everything is in one place.

HCM3, HCM4, and HCM5 also mentioned using templates to improve the organization of patient information. Managers structure templates in EMRS so that health care providers input patient data a specific way for proper organization, thereby, justifying insurance reimbursement (James et al., 2017). HCM3, HCM4, and HCM5 elaborated on the need to recreate or edit EMRS templates so that documentation is entered according to professional disciplines. HCM4 mentioned that sometimes the

EMRS will lack specific templates needed to enter data related to treatment such as housing structure (climbing steps).

HCM4 stated:

> My PTs (physical therapists) would sometimes struggle with entering notes because the templates would be missing certain information to enter in the chart such as flights of steps in the patient's household. This is important so that we can create a proper treatment plan for the patient and prepare for future discharges. Luckily, I was able to change the templates so my PTs can enter the data without issues.

Subsequently, HCM4 was required to modify the templates so that each staff member could document the correct information. According to James et al. (2017), HCMs can adjust EMRS tools such as templates to ensure functionality for patient documentation, so health care employees can perform tasks smoothly (James et al., 2017).

According to Weaver et al. (2020), health care providers should analyze patient data from EMRS to correctly understand client problems and deliver treatment. The data retrieved from HCM3, HCM4, and HCM5 correlate with the findings from Weaver et al. (2020) study regarding managers who organize patient information in EMRS improve communication between all health care providers, which increased the possibility of insurance reimbursement. HCM5 elaborated on the following:

> The way the program works is that, it's an electronic chart program that basically has the same format as a regular medical paper note. So, everything from this

> objective, subjective assessment, and plans is basically what the daily note for the EMR is. Everything in terms of your intakes, in terms of your paper that you will collect for your charts, is to scan into this program. It allows us to have all of our patient information more organized so that we are able to properly treat our patients.

In conclusion of the result findings, I illustrated the importance of proper input into EMRS in outpatient clinics by discovering the five themes. The findings are important because HCMs rely on computable data, such as templates, diagnosis codes, and billing codes. HCMs also use effective communication with personnel in order to plan, coordinate, and organize a successful EMRS implementation (Anderson et. al, 2017; James et al., 2017; Weaver et al., 2020). The HCMs used control and command managerial functions to remedy EMRS implementation issues such as overcoming barriers. I explained how HCMs used the conceptual framework of Fayolism to strategize and ensure that employee usage experiences were optimal with EMRS and how staff performance could improve over time (Anderson et. al, 2017; James et al., 2017; Lambooii et al. 2017; Lomotey & Deters, 2018).

Application to Professional Practice

I showed in my result study findings that there are HCMs who have successfully implemented EMRS in outpatient health care facilities, by using practical strategies to improve outcomes. The results of this study, in conjunction with the conceptual framework and the supporting literature review, may help other future entrepreneurs understand specific strategies that have improved EMRS implementation in outpatient

health care facilities. The findings from my research study may also be useful to future DBA candidates who may research EMRS implementation in health care facilities.

The onset of building an outpatient health care practice can be challenging because of a lack of resources, such as an EMRS, which can help control costs (Sushil & Raziuddin, 2018). Health care costs are continuing to increase because of an aging population, growing number of patients with chronic disease, increased acute injuries, and higher premiums (Shrank et al., 2019). Fortunately, health care information technology implementation has been beneficial for the HCMs in my research study as EMRS has increased the efficiency of transferring information between multiple areas for less wasteful spending.

The results indicate that the challenge that HCMs face is how to effectively employ strategies to improve employee usage and performance. As seen in the literature review, there are barriers to overcome (Jawhari et al., 2016), considerations to be made when it comes to data input for reimbursement (Mosweu et al., 2016), security (Or et al., 2018), and collaboration with other disciplines (Lieu et al., 2019). Based on my findings, however, the six HCM participants explained their successful strategies with EMRS implementation when five themes occurred.

The first theme was effective communication, where the HCMs used Fayol's concepts of planning and coordination through team meetings and staff training. Then, the second theme with overcoming barriers, was where the participants used Fayol's management function of control to provide employees with the support and resources they needed. Third, was effective time management, where the participants used Fayol's

order principle through allotting training time and time to make EMRS upgrades. Fourth, the HCMs used Fayol's remuneration principle, and observed compensation improving productivity, as seen when the employees are reimbursed properly. The HCMs mentioned that when they properly compensated their staff, the employees' EMRS usage and performance improved, leading to better documentation and reimbursements. The final theme was about data organization, where the HCMs used Fayol's management function of organization, to arrange personal information and finances with data procedures and protections in place. In my study, I showed the concerns and the strategies used by HCMs who have successfully implemented EMRS, to mitigate risk and resistance, demonstrating the functions of Fayolism (Anderson et. al, 2017; Clarke et al., 2016; Lomotey & Deters, 2018).

Implications for Social Change

An HCM of a private practice can utilize the five strategies mentioned in the themes to improve EMRS implementation. All six of the HCMs in my research study indicated that the use of EMRS improved data organization. According to Fish and Guha (2020), managers can improve data transmission and decreased medical errors, which continue to be problematic in the health care industry. The result findings suggest that with enough preparation and proactivity, managers can help patients and members of outpatient clinics with EMRS implementation since these are the places often located in the midst of communities. Managerial EMRS implementation benefits the patients who visit these facilities when they are operating at an optimal level. HCMs implementing EMRS properly would lead to better outcomes for patients and their well-being, since

patients would be confident that their information and treatment plans are properly coordinated between disciplines. Patients would be more involved in their medical treatment because of managerial EMRS implementation in outpatient clinics. Based on the literature review and the findings of this study, businesses would be able to improve their practice with successful implementation of EMRS using the participant's strategies. Using the participant's strategies, it is possible that a difference can be made, operationally, through better employee performance, which would benefit society, as these facilities and personnel serve the community.

According to Himmelstein et al. (2020), there are managers of private outpatient clinics-who struggle to open their private practice because of the growing costs in health care. The manager's problem with growing health care costs affects the patients, as they may opt for fewer medical office visits because of expenses (Himmelstein et al., 2020). Patients who come to these outpatient clinics for rehabilitation services have insurance coverage and or use self-pay. Sushil and Raziuddin (2018) stated that managers implementing EMRS can improve performance with outpatient clinics due to the more efficient flow of patient information, therefore reducing medical errors. Managerial wasteful spending in health care funds has caused lower EMRS implementation rates in private practices (Shrank et al., 2019). The results of my study show that with proper strategies using Fayol's functions and principles of management, these financial hardships can be mitigated. The results in my research study may help future entrepreneurs find the right strategies to successfully implement EMRS in their outpatient practices, which can positively impact patient well-being.

Recommendation for Action

I was able to find five key strategies that current and future HCMs can use for EMRS implementation. The first theme, which was internal communication, is an area that HCMs should focus on to ensure that all employees understand documentation protocol. Managers communicating through team meetings and designated staff training is a beneficial way to receive and review feedback about EMRS usage. Manager and staff communication is an important way for HCMs to improve adoption and quality of documentation.

Regarding the second theme, overcoming barriers, HCMs can anticipate future problems before they occur to have a better EMRS implementation outcome. Based on the data analysis, the three areas of concern for implementation barriers were technological challenges, resistance from staff, and abrupt interruptions. HCMs can create a plan for service interruption using a different documentation system until the EMRS is reactivated. Managers can prevent employee resistance by ensuring that there is enough time to utilize the EMRS and providing additional resources such as training manuals and face-to-face meetings.

The third theme, effective time management, HCMs can distribute proper time for staff and training purposes with EMRS. Health care employees may encounter high productivity demands, which can decrease the amount of time HCMs designate for documentation, which can result in lower reimbursement rates and lack of transparency between providers and patients. The HCM can rectify the problem by allowing staff more time during and after peak hours to utilize the EMRS. The HCM can also utilize their

time to modify and improve the EMRS. The HCMs time used to improve the technology can be during off-peak hours prior to deployment, which can ensure that there are less documentation errors.

The fourth theme, compensation to improve productivity, is a step that can be used by HCMs because proper reimbursement can motivate staff to increase productivity. An example of managers using compensation to improve staff productivity would be offering an hourly rate with documentation time. The result of managers offering proper compensation to employees can be improved quality documentation. Employee satisfaction may enhance the consistency of high quality note documentation, which would improve reimbursement from insurances.

The fifth theme, efficient data organization, HCMs can take the steps needed to organize all financial and personal data prior, during, and after EMRS implementation. The HCMs can modify or implement templates within the EMRS with succinct organization so that staff documentation is structured. Another example would be that HCMs can input ICD-10 codes that are up to date into the EMRS so that billing is accurate for reimbursement. The HCMs in my study made statements that purported that their organization of information in both external files and EMRS helped make the transition period less strenuous. Shrank et al. (2019) found that the managers who fail to organize health care data cause confusion among health care staff. Therefore, HCMs can organize all information to avoid ambiguity.

HCMs may benefit from paying close attention to the results of this research study because supervisors are in control of the outcomes with patient health care when

they transmit important data through documentation. The aspiring entrepreneur or HCM of a health care practice should use every resource necessary to ensure the EMRS is implemented properly to increase the chance of business success and positively impact patient experiences. Health care professionals working with HCMs may also benefit from analyzing the results of this study to understand the importance of EMRS for quality transmission of data to improve patient outcomes.

The results of this research study will be disseminated after receiving CAO approval. I will share the results of this study within academic communities through dissertation databases worldwide between scholars and researchers. I plan to publish my research study in peer reviewed journals.

Recommendation for Further Research

In my research study, I observed limitations that were not within my control. I identified one limitation with conducting a multiple-site case study in a U.S East Coast city, which limits generalizability to one geographical area. According to Awol et al. (2020), researchers conducted other studies on EMRS implementation in areas of conveniences. However, researchers should conduct future studies to understand successful EMRS implementation strategies in other locations within the United States to improve generalizability. Investigators should conduct further research in areas outside a U.S East Coast city so that there is a more generalizable view point for HCMs looking to expand their business using successful EMRS implementation.

The second limitation I identified was that external influences could have altered the perceptions of the participants involved in my research study. One variable future

researchers may consider is the quality of the EMRS, which HCMs select to implement. There are different options and costs available for EMRS and the needs for different HCMs or health care facilities would likely vary, impacting the use and implementation strategies. Future researchers can consider conducting a product evaluation in order to understand differences in functionality, HCM selection of EMRS, and overall performance of the technology due to those selections.

One serendipitous result that I found in my study was that the HCMs had more than 5 years of experience successfully running their private practice. Future researchers may have an interest in researching successful EMRS implementation among startup health care businesses that are less than 5 years old. According to the U.S Bureau of Labor Statistics (2020), 45% of new businesses fail within the first 5 years of opening, and 65% during the first 10 years. Therefore, future researchers can further investigate how successful EMRS implementation improves business longevity beyond 2 years.

Another unanticipated result that I found in my research study was the impact of affordability during EMRS implementation. The HCMs in my research study mentioned that additional funds would be needed for advanced EMRS tools to improve data organization. The managers mentioned that because of the additional expenses, they would either choose a more affordable EMRS or learn to adapt without the additional EMRS tools. Future researchers could explore how entrepreneurs choose EMRS based on organizational needs and affordability. According to Bertagnolli et al. (2020), EMRS affordability is one of the many challenges HCMs face when planning EMRS

implementation. HCMs can offset costs if careful planning and organization of resources is in place for budgeting according to the organizational needs.

Reflections

The purpose of my research study was to investigate the successful strategies HCMs use to implement EMRS in their outpatient health care facilities. I pursued this study topic because of my experience with using EMRS in the health care field. As a health care provider, I saw traditional paper charting slowly being phased out in favor of EMRS at a faster rate in larger health care facilities compared to outpatient health care facilities.

Although I had my personal opinions on the topic, I had to ensure that my biases were removed when conducting the interviews. My attempt to find participants was a challenge, especially with the COVID-19 pandemic affecting small businesses. I experienced times of feeling overwhelmed because of the level of detail needed for this research study. I also had to be assiduous with ensuring that the results aligned with my conceptual framework; however, I realized that it was important to be flexible to carefully conduct each interview and complete my study.

After completing my research study, I understood that for managers of outpatient health care clinics, the transition from traditional paper charting to EMRS can be difficult because of many factors. After conducting my research study interviews, I realize that I helped these HCMs understand how important a reliable EMRS is to successfully operate a small business practice. I found that the questions asked to the participants helped them to possibly appreciate the sacrifices they made to transition to an EMRS. The HCM's

participation as study subjects may have helped them plan out future goals to further improve the implementation and adoption process of their EMRS, which would be beneficial for the future staff and patients.

Conclusion

The purpose of my qualitative research multiple case study was to investigate the successful strategies that selected HCMs used to implement EMRS so that entrepreneurs can be made aware of the benefits. My research focused on six HCMs who successfully implemented EMRS to further improve business operations. Entrepreneurs of outpatient clinics should not be discouraged from implementing EMRS because the use of technology can help health care facilities evolve and adapt to the health care business environment and remain stable. The HCMs in my study demonstrated that with the selection of effective strategies for EMRS implementation, employee usage and performance can improve. The increase in employee usage and performance can have positive fiscal implications. Subsequently, patients may benefit for a smoother, and more informed operation. Health care provision in areas of need is essential to improve the wellbeing of members in society and outpatient health care facilities are more necessary than ever before.

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Appendix: Interview Protocol

Script before the interview:	Thank you for participating in my research study. As mentioned in the consent form, the purpose of my research is to explore the implementation strategies used with electronic medical record systems in your health care practice. This interview may last between 30-60 minutes, during which I will ask you questions about the EMRS implementation strategies used by you at your health care practice. I emailed you the consent form for your permission to participate in this study. Here are two hard copies of the same. Please let me know if you have questions. ___Yes ___No If no: As you have agreed to participate in my study, please sign the consent form and return one copy to me. Are you ok with me audio recording the interview? ___Yes ____No If yes: Thanks! Please let me know if you want me to switch of the audio recorder at any time. If no: Thanks for letting me know. I will only take notes of our conversation. Before we begin the interview, do you have any questions? (Discuss questions if any). If any questions arise at any time during this interview, please let me know, and I will be happy to answer them.

Interview Questions	1. What were your goals when coordinating the implementation of your organization's EMRS? 2. How did you plan your objectives to ensure a smooth transition from the previous medical record system to the current EMRS? 3. What were the key barriers to successfully implementing the strategies for EMRS? 4. How did your organizational leaders address the key barriers to implementing the strategies for implementing the EMRS? 5. Based upon your experience within your organization, how have you been able to address staff concerns regarding EMRS implementation? 6. Based upon your experience within your organization, how has your employees responded to the coordination of EMRS implementation? 7. What were the key training strategies used to successfully implement the EMRS in your organization? 8. What political complications did you encounter when implementing EMRS? 9. How do you and your organizational leaders plan to improve the EMRS? 10. What additional information would you like to share about EMRS implementation strategies?

Script after the interview questions asked:	Thank you for answering all the questions. I will create the interpretations of your responses and will meet you again for the member checking interviews. These follow-up interviews will not last more than 20 minutes.

Member Checking Interviews	
Script before the interview:	Thank you for agreeing to meet me again. Here is a copy of the member checking document, which includes the interpretations of your earlier responses. Please review them and let me know if my interpretations are correct or if you want to add something more to your earlier responses. (Hand over or send the member checking document to the participant for validation).
After the interview:	Has the participant shared additional information during the member checking interview? ___yes __No If yes: Thanks for reviewing the member checking documents. I will complete my interpretations of your responses and will schedule another member checking interview which will not last more than 20 minutes. If no: Thanks for reviewing the member checking documents. I will share a copy of the study findings for your information at the completion of my research.