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Strategies Among Health Care Business Professionals to Increase Productivity and Revenue

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This is to certify that the doctoral study by

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MBA, American InterContinental University, 2013

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

Health care business professionals have been slow to implement electronic medical records (EMRs), although this is a federal requirement tied to reimbursement from Medicare and Medicaid. Guided by the conceptual framework of the technology acceptance model (TAM), the purpose of this single-case study was to explore EMR strategies that health care business professionals use to increase productivity and revenue. The target population was comprised of health care business professionals with EMR strategies in Orange County, New York. Methodological triangulation included analysis of semistructured interviews with 7 health care business professionals and review of organizational documents consisting of emails, meeting minutes, and a handbook. The recruitment strategy used was random sampling and snowball sampling. Analysis included compiling data, coding the data by disassembling into categories, and reassembling the data into emergent themes. The findings of the study included 5 themes or strategies focused on EMR implementation, leaders' efforts to support and sustain the EMR, helping users accept the EMR, communication and efficiency for increasing productivity and revenue, and helping users improve health care safety. Health care business organizations can benefit by knowing where to focus their resources, maximizing return on investment. The findings could effect social change by enumerating strategies that businesses can use to improve performance, and productivity for health care business professionals and improve quality, care coordination, and management of population health and safety of health care for patients.

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Dedication

I dedicate this to the Lord and my Saviour. Special dedication to my parents Marcia and Luciano Cal who guided my path and set the standard for my success. Finally, I extend my dedication to my family Marcia, Robert, and Dr. Patricia Cal who supported me throughout this endeavor.

Acknowledgments

I would like to extend my thank you to my Committee Chair, Dr. Peter Anthony, and committee members Dr. Kelly Chermack and Dr. Denise Land, who kept me on track. Without their support and guidance I could have gotten within 20 feet and still not climbed to the top of the mountain to accomplish this goal. Thank you to Dr. Freda Turner for your advice and continued support.

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Section 1: Foundation of the Study

Efforts for health care business professionals to support the use of an automated medical record system has been a goal of the George W. Bush and Barack Obama administrations (Centers for Medicare and Medicaid Services [CMS], 2012a). Current and previous presidential administrations' visions has been for all health care business professionals to use the electronic medical record (EMR) by 2015, based on the American Recovery and Reinvestment Act of 2009 (U.S. Department of Health and Human Services [HHS], 2009). Moreover, health care business professionals who do not implement the EMR could see a percentage decrease in Medicare reimbursement.

Under health care reform, the assumption made by the Bush and Obama administrations is that the EMR adds significant value to the health care system in the United States through the improvement of safety and quality (CMS, 2012). Based on the requirements of this reform and the substantial effect on businesses, I conducted a qualitative single-case study to explore EMR strategies health care business professionals use to increase productivity and revenue. I focused on the electronic medical records system because the innovation affects productivity and revenue for business professionals (e.g., Burns, Bradley, Weiner, & Shortell, 2012). The implications of this study may help health care business professionals understand strategies to increase productivity and revenue.

Background of the Problem

An essential benefit of health care information technology is to improve the proficiency of health care business professionals' practices through successful

implementation of the EMR (Cusack et al., 2013). The implementation of EMR in hospitals and health care business professionals' practices may result in benefits for safety, quality of care, and efficiency (Lee, Kuo, & Goodwin, 2013). However, when health care business professionals implement the EMR technologies, there is often a lack of interoperability and compatibility during and after implementation (Wang, Li, Zhang, Suzuki, & Araki, 2013). The reason to conduct this qualitative single-case study was to explore the EMR strategies health care business professionals use to increase productivity and revenue.

Lee et al. (2013) stated that, although there are efforts to support the integration of the EMR in the United States, certain barriers have become problematic. Organizations that adopt the EMR often lack interoperability of systems, alternative strategies, adequate training of personnel, time, contingency plans for the breakdown, and maintenance and financial barriers that limit the EMR's usefulness (Cagle et al., 2012; Mohammed et al., 2016). Health care business professionals, through on-going collaboration, increase the organization's productivity and revenue (Gilmer et al., 2012). Findings from this study may add value and create positive change for health care business professionals in health care organizations. These findings may include leaders support, defining business processes, clarifying training needs, and improving communication with the provider, patient, and the community. Positive social change may result from improvements in the quality of patient care and the efficiency of the health care system facilitated by the EMR when used to its full potential.

Problem Statement

Policy makers and health care leaders set aside $30 billion for the adoption of the EMR (CMS, 2014) yet physicians are failing to make this transition (Adler-Milstein, Salzberg, Franz, Orav, & Bates, 2013). Health care business professionals who did not adopt the EMR and abide by the concept of meaningful use, beginning in 2015, were subjected to financial penalties in excess of 1% in Medicare and Medicaid reimbursement and 1% for the next 5 years by 2020 (CMS, 2015). The general business problem is that some health care business professionals in hospitals were not capitalizing on business opportunities, which resulted in a loss of productivity and revenue for the business. The specific business problem is to explore EMR strategies among health care business professionals to increase productivity and revenue.

Purpose Statement

The purpose of this qualitative single-case study was to explore EMR strategies among health care business professionals to increase productivity and revenue. The target population was comprised of health care business professionals in Orange County, New York. The population was appropriate for this study because health care business professionals were most suited to identify strategies for increasing productivity and revenue. The EMR contributed to the business environment by a decrease in health care and an increase in revenue and productivity through the implementation of the EMR for health care business professionals (Guy et al., 2014). With health care business professionals adopting the EMR, the culture also changed for patients, since this led to better communication, interaction, coordinated care, improved quality, decrease

duplication, and eliminated waste (Lau et al., 2012). The implications for positive social change included benefits to patients in terms of decreased health care cost and improved health care access, safety, quality, and efficiency (Adler-Milstein et al., 2013; Lau et al., 2012). Fewer medical errors improve health care for patients and increased productivity and revenue for health care business professionals (Lau et al., 2012).

Nature of the Study

I selected a qualitative method because the purpose of my study was to explore what EMR strategies business professionals use to increase productivity and revenue. To explore the experience of the health care business professionals with the EMR, I chose the single-case study methodology to explore a real-world case of an everyday situation (e.g., Yin, 2014). The case study was specific to health care business professionals working in hospitals in Orange County, New York. Unlike a quantitative study, in which a researcher uses surveys and interpretation of numbers, a qualitative study opens up new options and ideas and gives the researcher an opportunity to hear the participants' voices (Gioia, Corley, & Hamilton, 2013).

According to Sparkes (2015), the mixed method combines quantitative and qualitative strategies, which can produce disjointed, unfocused research. The challenge of bridging the data takes time, and researchers may confuse the data (Molina-Azorín, López-Gamero, Pereira-Moliner, & Pertusa-Ortega, 2012). The mixed method was not suited for this study because the focus was to explore strategies among health care business professionals to increase productivity and revenue, rather than apply variables and looking for the results of these changes.

A single-case study was the preferred design for my study. I collected data using semistructured interviews with open-ended interview questions and consulting records (e.g., Ozuru, Briner, Kurby, & McNamara, 2013). For purposes of this study, other types of qualitative methods would not adequately address the factors influencing the adoption of the EMR. For example, ethnography tells a story about peoples' lives and culture (Reeves, Peller, Goldman, & Kitto, 2013). Ethnography requires the researcher to be immersed in a prolonged period of observation of the subjects' culture and activities (Reeves et al., 2013). Ethnography design would not benefit my study since the focus was not to tell a story of people's daily lives or culture. Narrative research includes individual experiences relating to a sequence of events, which results in a lack of understanding of the phenomenon as applied to business (Marshall & Rossman, 2016). Phenomenological research consists of studying participants through extensive and prolonged engagements (Marshall & Rossman, 2016). Phenomenology was not appropriate for this study because the purpose of my study was to explore strategies used by health care business professionals, not to explore lived experiences of a phenomenon.

Research Question

Health care business professionals seek to obtain EMR meaningful use so as not to incur financial penalties. The importance of this study emphasized health care business professionals as participants sharing their experiences. The research question applicable to this study was: What EMR strategies do health care business professionals use to increase productivity and revenue?

Interview Questions

Participants responded to open-ended interview questions in a semistructured process. The focus of the discussion consisted of how health care business professionals understand the strategies for implementation and application of the electronic medical record.

1. What strategies are used to overcome barriers to implementation?
2. What alternative strategies were considered based on feedback data?
3. What strategies are in place to help users understand the usefulness of EMR implementation?
4. What strategies were implemented to help users understand the EMR system?
5. What business processes were eliminated or enhanced in the implementation of the EMR?
6. What type of leader support strategies has the organization received since the implementation of the EMR?
7. What training if any have you received in using the EMR?
8. What type of communication has the EMR system provided between provider, patient, and community?
9. What safety issues have you encountered with the implementation of the EMR?
10. What additional information would you like to add to this interview?

Conceptual Framework

The purpose of the study was to explore business strategies among health care business professionals to increase productivity and revenue. The conceptual framework I used to explore these strategies was the technology acceptance model (TAM). The TAM served as a lens to better understand the strategies health care business professionals use to increase productivity and revenue.

Davis used the Fishbein model as the reference point to develop the TAM (Fishbein, 1967). The Fishbein model originally specified in 1967 was extensively examined and honed by Fishbein and Ajzen (Fishbein & Ajzen, 1975). The TAM is a significant extension of a system grounded in the Ajzen and Fishbein theory of reasonable action (TRA) used to explain how individuals' attitudes influence their behavior. The TAM is an intention-based standard developed by Davis (1989) to explain different strategies that users employ to accept information systems. Davis further acknowledged that the TAM is a model used to explain the extent to which a person believes productivity increase through usefulness.

Davis, Bagozzi, and Warshaw (1989) noted that this is also the level to which a person believes that using a specific model decreases effort. Davis (1989), and Lee, Xiong, and Hu (2012) advised that there are many factors that affect how people adapt or use technology. These factors include *perceived usefulness* (PU) and *perceived ease-of-use* (PEOU) (Egea & González, 2011). Davis (1993) explained that PU was an example of satisfaction people achieved when using technology that increases performance. Davis also demonstrated that PEOU was the amount of effort put forth when using technology

(Davis, 1989; Lee et al., 2012; Oh & Yoon, 2014). These factors were important to consider in relation to the implementation of the EMR because they affect acceptance and effective use of the system by users. In using the TAM model to explore perceived usefulness, ease of use, quality, and efficiency of the process, I explored factors that contributed to achieving the goals of EMR use, namely increased productivity and revenue.

Operational Definitions

Centers for Medicare and Medicaid Services (CMS): The organization that has oversight of Medicare and collaborates with other government agencies to manage Medicaid (CMS, 2014).

Electronic health record (EHR): The EHR system is an automated documentation compatible with other electronic systems during delivery of health care. The main purpose of the EHR is to communicate information that results in safer care for patients and providing greater efficiency (Hyppönen et al., 2014).

Electronic medical record (EMR): An automated system that shows all encounters and diagnoses by a medical professional. The EMR allows access to patient data and information including providers' notes, lab and diagnostic test results, and consultation reports (Babbott et al., 2014).

Health care Business professionals: In the doctoral study, this phrase represents nurses, physician's assistant, nurse practitioners, clerks and information technology personnel (CMS, 2014).

Meaningful use: The CMS defines meaningful use as a mandate that directs health care business professionals that provide care, to employ EHR/EMR technology that meets specific criteria to earn incentive dollars (CMS, 2014).

Department of Health and Human Services, (HHS): The organization charged with safeguarding the health of American populace and offer necessary services (HHS, 2016).

Assumptions, Limitations, and Delimitations

Assumptions

Marshall and Rossman (2016) defined *assumptions* as the lens through which a researcher perceives the world. For the researcher, a previous observation or connection that might sway the research could be beneficial, or conversely seen, as showing preference (Marshall & Rossman, 2016). This qualitative descriptive study included several assumptions.

The first assumption was that the participants are positively inclined to be a part of the study and that they understand the significance of confidentiality. Second, participants would respond actively, truthfully, and appropriately to questions asked during the interview. Third, that I would identify trends correctly from the data collected. Fourth, participants were not pressured and answered questions without bias. My fifth assumption was that the influence of external factors was insignificant to the responses given by participants. Some examples of these external factors are operating revenue, financial factors, complexity, and compatibility (Kruse, DeShazo, Kim, & Fulton, 2014).

Limitations

Limitations refer to probable flaws or weaknesses of the study (Marshall & Rossman, 2016) and how the results promote understanding of the research problem (Grove, Burns, & Gray, 2013). First, the study included health care business professionals. I did not interview other personnel such as insurance personnel for the study; thus, my results are only applicable to populations similar to this population of health care business professionals. Second, time constraints did not allow for further, in-depth study of the phenomenon. Third, the study was limited to those participants who agreed to participate in the study. There may be individuals who are in an experiential or structural position such that their responses would benefit the understanding of the overall case, but it is possible they might not have agreed to participate. Fourth, some participants in the study may have already had exposure to another system in an external environment (see Kirkendall, Goldenhar, Simon, Wheeler, & Spooner, 2013). These experiences may have affected their responses to my interview questions.

Delimitations

Delimitations are the borderlines that are set to conduct the study (Marshall & Rossman, 2016). Borderlines include what a researcher is not doing and why a researcher has chosen not to do them (Grove et al., 2013). For example, there are other business professionals such as insurance personnel who use the EMR system; however, these professionals may not be in a position to understand the business strategies to increase productivity and revenue. Another delimitation is the sample size; a larger sample would have added time by meeting with all the administrators to gain access to their hospital

organizations. The location of the study is also a delimitation. I restricted the geographical location to Orange County, New York for accessibility purposes.

Significance of the Study

The study may be of value to businesses by increasing their understanding of business strategies that may be used to overcome barriers to implementation. Some of these barriers may include workflow inefficiencies, poor quality of systems, and limited understanding of the EMR. The improvements in workflow, system compatibility, and alternative strategies that may be implemented could help users understand and more effectively use the system. These business strategies may help health care business professionals increase productivity and revenue.

Contribution to Business Practice

The study may fill a gap in the literature and contribute to business practice by providing additional knowledge to health care business professionals for developing strategies to increase productivity and revenue. Understanding strategies and alternatives that other hospital organizations use could help with implementation and adoption of the EMR. Health care business professionals can also understand what strategies organizations employ to help increase ease of use and usefulness of the EMR.

Business leaders may also use the findings from this study to evaluate the effectiveness of the current strategies that their organization is using in implementing the EMR. The EMR, as a tool, shows great promise to advance the progress of health care service (Bardhan & Thouin, 2013). The beliefs held by health care delivery leaders are that an organization's characteristics and priorities may affect EMR implementation. The

United States is at the forefront in using technology for innovation to improve business practices (CMS, 2013). Despite the standard for using technology, the health care industry has stayed behind in implementing EMR systems technology (Payne et al., 2013). Results from this study may improve the delivery of health care through creating vigorous self-assessment, planning, evaluation, accountability, and continuity to health care organizations to support sustainable on-going change processes (Florea, Cheung, & Herndon, 2013). This sustainability may help health care business professionals increase productivity and revenue.

Implications for Social Change

Interest in technology may increase for health care business professionals. However, health care organizations need to have an awareness of the positive change involved with the implementation of the EMR. This study may serve to further the knowledge of the EMR by health care business professionals, patients, the community, and the United States. Hospital leaders who implement the EMR may embrace the mandates of legislation and enact new policies and procedures to streamline critical processes in the health care industry (Otto & Nevo, 2013). Business professionals, through improved communication, can use the incentives associated with meaningful use to maximize the benefits of the program (Lee et al., 2013). Health care practitioners, having knowledge of strategies used during implementation, can avoid the risks that are inherent to innovation and use of the technology. The knowledge gained could provide opportunities for providers to interact and exchange information as well as passing

information on best practice implementation models to health care business professionals to increase productivity and revenue.

Social change involves geographic mobility. Patients migrate throughout the United States because of jobs, economic or other reasons. When people move, they change doctors and their medical history may be accessible to the new provider. With the adequate implementation of the EMR, physicians can share records and avoid duplication and the associated costs, as well as improve coordination of care. Hsiao et al. (2013) explained that the EMR provides continuity of care, reduction of errors, patient medical history, improved quality, increased revenue, and productivity. Lin et al. (2014) noted with more physicians implementing the EMR, access to health care for communities in rural areas as well as in big cities improves. The findings of the proposed study may fill the gap in an entirely integrated effort enumerating strategies toward improving performance, revenue, and productivity for health care business professionals as well as increasing quality, coordination, and safety of health care for patients.

A Review of the Professional and Academic Literature

The purpose of this single qualitative case study was to explore EMR strategies health care business professionals use to increase productivity and revenue. My focus was on the TAM, rationale of the EMR, the cost of health care, the American Rehabilitation and Reinvestment Act, the TAM theory, technology and acceptance of the organization, education and training for the EMR, barriers to adoption of the EMR, benefits of the EMR, safety and security concerns with EMR use, leaders and transition, and how the conceptual framework related to my literature review.

The literature review included peer-reviewed journal articles, U.S. government websites and documents, books, and encyclopedias. The documents were less than 5 years old for current relevance to the study. The journal articles used were from Academic Source Premier, electronic databases such as Google Scholar, Business Source Premier, and Medline Cinahl. The searches included phrases and keywords such as *the history of EMR*, *ethics, technology*, *attitude*, *organizational learning*, *barriers to adoption*, *environment*, *reimbursement*, *change*, and *medical professionals delay in adopting the EMR*. I also reviewed other documents older than 5 years for the study. In the literature review, I have 139 references, 93% of which are peer-reviewed, and within 5 years prior to expected year of doctoral study completion. Throughout the entire doctoral study, I have 317 references, 94% of which are peer-reviewed and published within 5 years of expected year of completion of the doctoral study.

Technology Acceptance Model

The TAM is a significant extension of a system grounded in the Fishbein and Ajzen (1975) TRA. Fishbein and Ajzen explained by means of the TRA model, how individual's attitude influences their behaviors to adapt to a particular norm. Sheppard, Hartwick, and Warshaw (1988) indicated that, with the TRA theory, if others see the value of a positive innovation then people are more apt to use the technology. Richard Bagossi and Fred Davis coined the TAM (Davis, 1993; Davis et al., 1989). Ajzen (1991) indicated one example of the application of TRA is in fields such as health care. Ajzen extended the TRA initiative model by introducing the theory of planned behavior (TPB) and showed the connection between the views of someone and their actions.

Researchers questioned the value of the TAM for decades. Researchers proposed other models, but the TAM was the most popular and validated system to study how people use information technology. The original TAM provided a parsimonious account of technology adoption based on the TRA (Fishbein & Ajzen, 1975). Iqbal et al. (2013) stated that the TAM model also explains perception and the adoption of behavior. Other areas measured using the TAM include security and privacy (Kirkendall et al., 2013). Similarly Sternard and Bobek (2013) explained that the TAM describes usage and influences that improve efficiency and effectiveness. Likewise, Svendsen, Johnsen, Almas-Sorensen, and Vitterso (2013) stated that when people find technology that is user friendly, they are more apt to use it, although they explained that there are few studies conducted on perceived usefulness.

The discussion in the literature review about the TAM is what I used as the theoretical model for my study. Because effective use of the EMR is paramount to reaching the goals the system was designed to achieve, acceptance of the technology is a key concept to understand how users interact with the EMR (Lee, Lin, Yang, Tsou, & Chang, 2013). I used the model as a guide to writing interview questions and interpretations of the responses. Further analysis of these responses may be used to serve as vital information among health care business professionals to understand strategies to increase productivity and revenue.

Overview of the EMR

The earliest use of an EMR was called the *patient-oriented medical record*. Lawrence Weed developed the record with the intent to reorganize patient medical

records to improve patient care (CMS, 2012). The initiative was to place emphasis on organizing patient data to include information on the patient, the objective, the assessment, progress notes and a care plan (Alonso et al., 2013; CMS, 2012). However, practitioners thought that it was incompatible with their office practice.

Hannan and Brooks (2012) stated that using the e-technologies that were available at the time showed many benefits. These advantages included computer-generated alerts and reminders for clinical decision support systems. In addition, there was a connection between best practice alerts for improved access and functionality (Hannan & Brooks, 2012). King, Patel, Jamoon, and Furukawa. (2014) agreed the EMR had many benefits including quality of care, ordering tests and communication. Lau et al. (2012) noted the organizations did not understand the strategies that would give meaningful use and thereby increase productivity and control costs to increase revenue for health care business professionals. Likewise, Terry (2013) found the handwritten charts were missing information, were not updated, and documentation was scattered throughout the chart, creating a lack of consensus in treatment. Edwards (2012) stated the EMR improved patient care, provided health care savings, reduce medical errors, and promoted efficiency savings and revenue.

A theoretical model that researchers may use to understand user acceptance is the TAM. The TAM is one of the most accepted and recognized models (Melas, Zampetakis, Dimopoulou, & Moustakis, 2011). Davis (1989) further acknowledged the TAM is a system that may be used to explain the extent to which a person believes job performance should increase. Hu, Chau, Sheng, and Tam (1999) described the TAM model as a model

conceived by Fred Davis on how people respond to or accept computer technology. Ketikidis, Dimitrovski, Lazuras, and Bath (2012) indicated the TAM may be used to analyze how people respond to and accept technology. By analyzing how people respond, organizational leaders may develop strategies so health care business professionals can understand perceived use and usefulness of the EMR (Hu et al., 1999; Ketikidis et al., 2012).

Government leaders also played a role in the integration of the EMR (CMS, 2012). The government leaders had an initiative for organizations to implement and adopt an automated record system to document patient care by 1999. Based on patient-privacy grounds, groups abandoned computerization of the patient record (Bruen, Ku, Burke, & Buntin, 2011).

Another deterrent was the cost of transferring earlier records and purchasing equipment. Higgins et al. (2012) suggested a change to the EMR increases productivity through data capture and coding efficiency. With time, expenditures decrease because of the electronic documentation rather than dictation, which results in a greater return on investment for health care business professionals (Higgins et al., 2012).

Higgins et al. (2012) defined in his analysis that there are many benefits associated with EMR use. Some of these benefits include access to care, documentation of patient care, and efficiency, which translates into increased productivity and a greater return on investment for health care business professionals. The problem is health care business professionals lack the strategies to maximize productivity and revenue through EMR implementation. One model to understand perceive use and user acceptance is the

TAM. With researchers using the TAM to understand acceptance, they can provide knowledge and strategies that health care business professionals may use to maximize EMR use and thereby increase productivity and revenue.

Cost of Health Care

Compared to the rest of the world the United States spends more on health care than any other country, yet, many Americans lack quality affordable health care. Basole, Bodner, and Rouse (2013) stated that health care was a concern for government agencies, business organizations, and the community. Jost (2012) stated a committee got together to discuss health care costs in the 1930s. They found health care costs were 4% of the gross domestic product, with health care accounting for 16% of our GDP or over 2 trillion dollars a year. In the 1950s, the United States spent $12.7 billion a year on health care, rising in1965 to $41.6 billion, and by 1972, $92.3 billion (Jost, 2012).

The policy makers introduced four strategies to control the rise in health care costs in the 1970s. The four strategies were health planning, utilization review, health maintenance organizations, and hospital price controls (Jost, 2012). First, health planning was implemented to control excess capacity. The more hospital beds in the community, the more days of hospital care organizations were likely to use (Ferrier, Leleu, Moises, & Valdmanis, 2013). Second, the professional standards for Medicare and Medicaid were reviewed to determine if it was medically necessary. The third strategy was the Health Maintenance Organization program (HMOs) used in health care organizations to lower hospital utilization (Robinson & Miller, 2014). The fourth was a 90-day freeze on wages and prices imposed to control costs, including hospitals (Jost, 2012).

However, with the implementation of these interventions, the 1980s saw an increase in care utilization with organizations. Providers and policy makers realized the health care in the United States needed much attention. Qaseem et al. (2012) noted in 1980, the United States spent $253 billion on health care, increasing to $714 billion in 1990, and to more than $2.2 trillion in 2008.

According to Chandra and Skinner (2012), between 1980 and 2008, the health care spending in the United States had grown by seven percentage points. The growth was in comparison to Organization of Economic Corporation and Development (OECD) countries with growth rated at two percentage points. Despite slower growth in prices and utilization in 2011, spending increased by $2.7 trillion (Ferrier et al., 2013). In contrast, Cutler and Sahni (2012) stated that the United States' growth spending slowed in the past 4 years. Due to cutbacks in Medicare spending and private insurance, the United States could realize a decrease in spending which could result in $770 billion less than predicted in health care costs (Cutler & Sahni, 2012).

Although it is not clear whether the data supports the change, health care data shows that the trend in spending slowed down. White and Ginsburg (2012) explained that because of stringent policies enacted by the government, Medicare spending decreased. Jost (2012) also acknowledged that private insurance spending growth decreased in recent years. Marmor and Oberlander (2012) posited that one of the most common explanations for a reduction in health care spending is the recession of 2007 to 2010. In contrast, Roehrig, Turner, Hughes-Cromwick, and Miller (2012) speculated spending in health care decreased before the recession in 2007. The policy makers turned their

attention on other interventions that perhaps could lower the escalating costs of health care.

One of these interventions that perhaps could lower health care costs was the integration of the EMR, although there are high costs associated with implementation (Burwell, 2015). Adler-Milstein, Ronchi, Cohen, Winn, and Jha (2014) explained that as health care business professionals develop processes and implement strategies, an important factor is to understand how others implemented the EMR. Because there are high costs and failure is high, health care business professionals need to benchmark using measures and comparable metrics to develop best practices for EMR implementation (Adler-Milstein et al., 2014). Sinsky, Beasley, Simmons, and Baron (2014) stated the integration of the EMR is a strategy that increases communication between provider and patient which makes efficient use of health care resources.

Prudent use of health care resources means decreased waste, increased cost savings, and increased revenue with the integration of the EMR (Sinsky et al., 2014). Burwell (2015) explained that, with the integration of EMR and interoperability, patients' records would be available promptly and at the point of care. Transparency increases in the health care market and by means of the EMR, organizations compare costs of delivery, productivity, and for performance measurement to help health care business professionals increase revenue (Burwell, 2015). Another benefit is that an EMR system could reduce errors made by providers that are costing the health care industry approximately $2 billion on an annual basis in liability costs for business professionals (Kumar & Bauer, 2011).

The discussion supports the purpose of the study because high medical costs and implementation of the EMR are costly to health care business professionals. One factor that may reduce health care costs is the implementation of the EMR. The problem is the cost of implementation is high and there is resistance. An alternative strategy to assess before implementation is benchmarking. Business professionals may benchmark from other organizations to understand their implementation model and avoid the failures of high costs and inadequate implementation, which may result in increased productivity and revenue. Some of these high costs include interoperability of systems, and medical errors, which results in decreased productivity and increased liability costs for health care business professionals.

The American Recovery and Reinvestment Act

Two presidential administrations pursued a strategy to implement health information technology (HIT) through the adoption of an EHR (CMS, 2013). The G. W. Bush administration, through an executive order, founded the position of national coordinator (CMS, 2013). The purpose was to help bring about the adoption of the EHR. To further control health care costs through preventative measures, Congress passed the Health Information Technology for Economic and Clinical Health Act (HITECH; Mihalko, 2012). Williams and Gold (2014) noted some of the purposes of the HITECH Act were to improve patient care, decrease errors by improving HIT, and strengthen the privacy and protection of patient health information. The HITECH Act became effective in 2010 along with the Patient Protection and Affordable Care Act (PPACA) creating a national information exchange (HHS, 2009).

With the enactment of legislation mandating its use, the urgency to shift from paper documentation to a paperless system for record keeping became an imperative (DesRoches et al., 2013). This shift would not only change the culture, but it offered health care business professionals a new standard by which to view patient's needs. The EHR would serve as a tool for health care business professionals to develop new strategies to improve the quality of care and interoperability across organizational boundaries, streamline processes, reduce rework, improve patient safety, increase revenue, and gain market share for health care business professionals. If health care business professionals can improve the quality of care for patients they can sustain or grow market share, which translates into increased revenue (Higgins et al., 2012).

Technology Acceptance in the Organization

The health care financing and delivery models of the United States are being driven by disruptive innovation, obliging health care business professionals to rethink technology use by improving on the EMR technology and developing its appeal (Norman & Verganti, 2014). One such change is EMR technology. DesRoches et al. (2013) indicated that regulators emphasized HIT by means of the Clinical Health Act passed in 2009. Another piece of legislation that has affected the EHR system implementation is the PPACA (Weiss & Nunes Amaral, 2013). The goal is to enable providers to move patient data from paper-based to electronic health records (CMS, 2014) with policy makers setting aside incentives for the implementation of the EMR worth more than $30 billion.

In a longitudinal survey conducted by Iglehart (2013), 44% of the practices had a basic EHR system. Iglehart's findings showed 72% of hospitals had adopted an electronic system. Some of the challenges were that although the EHR bolstered patients' satisfaction, physician's work increased. In contrast, Kellermann and Jones (2013) reported that physicians and nurses complained the IT system slowed them down. A key finding was that cost is elusive and requires expensive technology (Kellermann & Jones, 2013). This finding does support other research that has been conducted by other researchers.

Bardhan and Thouin (2013) conducted a longitudinal study using archival data and noted quality indicators showed there was no meaningful association between EMRs and clinical decisions with better quality. Bardhan and Thouin's results showed a significant relationship between usage of clinical information systems and applications for best practices. Similarly, Jarvis et al. (2013) stated that, although the EHR improved workload and productivity, research was lacking in understanding these constructs. Bardhan and Thouin emphasized further studies are needed to benefit the physician practices by measuring decision support capabilities and quality of meaningful use and integration of the EMR.

The issue of integrating HIT is nothing new in the health care industry. Lee et al. (2013) conducted a study to examine whether HIT could improve health care delivery. Lee et al. collected data covering a period between 1997 and 2007 from the California Office of Statewide Health Planning and Development (OSHPD).

A total of 309 hospitals participated in the study from which Lee et al. (2013) drew four conclusions. The first conclusion was that there was no evidence to show how IT affected costs, return on investment, or quality of patient care. Similarly, Sinsky et al. (2014) mentioned the EMR could result in substantial waste and as a support resource diminishing the value of the technology. Second, Lee et al. indicated that hospital leaders' business practices, for example, may benefit from other systems implemented in supply, finance, and other service industries. Iglehart (2013) purported hospitals need to develop an effective business model with strategies developed to understand the transformation of the EMR technology. Third, Lee et al. indicated that IT could reduce costs and improve resource allocation. On the contrary, Kellermann and Jones (2013) argued IT has failed to show increased productivity and promised gains of savings and revenue for health care business professionals. The fourth conclusion from Lee et al. was that the EMR might be used as a platform to improve on patient errors and coordinate workflow, enhancing quality and productivity.

Lee et al. (2013) stated the value of health IT was 6% whereas the data collected during the same period was more than 210%. Similarly, Jarvis et al. (2013) conducted a cross analysis in 2012 to assess the connection between EHR use and the Health care Information Management Systems Society (HIMSS). Jarvis et al. investigated the effects of the EHR by analyzing hospital quality and patient satisfaction. In the study, 2,988 hospital organizations participated with 248 hospitals meeting the requirements of progressive EHR users. Jarvis et al. found the quality of care improved in U.S. hospitals

that had implemented an EHR. Jarvis et al. specified the greatest gain in the EHR use would materialize when hospitals implement a fully integrated EHR.

Due to the drawbacks in adopting IT and the different systems on the market, the lack of adoption was because of interoperability or ease of use and functionality of the system. Kellermann and Jones (2013) stated the lack of adoption of health IT systems was because of poor interoperability, design, implementation, and ease of use. Cresswell, Bates, and Sheikh (2013) drew similar conclusions that the design in the technology affected the workflow, interface, and computer compatibility. Kellerman and Jones found health care business professionals delayed the adoption of the EMR due to uncertainty about government policy and regulations. Future research is relevant to understand how the government incentivized investments in EHR adoption measures affects outcomes (Jarvis et al., 2013).

A system that is compatible with other systems can change and improve health care delivery (Price & Lau, 2014). How organizations implement IT is not consistent, and adoption remains low. An example is an analysis of 50 practitioners examined for diabetes care quality by comparing randomly sampled charts against accepted care (Price & Lau, 2014). Of these practices, 37 used paper for documentation and 13 used EMRs. Price and Lau found when organizations implement technology, alignment has to exist between the task, the individual, and the technology. In contrast, Cresswell et al. (2013) reported innovation does not always mean new technology. For example, nurses may have different needs from other business professionals. Cresswell et al. ascertained that to

incorporate technology, an organization needs to develop strategies that focus on value added rather than just need.

The analysis is important for my study because the discussion addresses advantages and disadvantages of the EMR. Some users view the technology as a disruptive innovation that is costly, slow, wasteful, and produces poor quality (Bardhan & Thouin, 2013; Kellermann & Jones, 2013). Other health care business professionals view the EMR technology as a best practice model, that when properly integrated reduces costs, improves quality and productivity, and gives business practices an opportunity to gain market share, thereby increasing revenue (Lee et al., 2013). A strategy discussed was organizations need to develop strategies that include tracking productivity and improving quality measures using the EMR, and focus on value added rather than just need.

Education and Training

The EMR is rapidly changing the health care system. Reis et al. (2013) that noted in order to get the most benefit from these systems, users must have proficiency in their use. Although integrating the EMR has its advantages, educators had many unanswered questions about the EMR and educating students. Many educators were concerned that students are not using the templates that are offered by the EMR (Hammoud et al., 2012). A significant observation was that students are using the EMR at higher rates than physicians in practice.

Ketikidis et al. (2012) specified education programs are more than health care IT. Educational programs should include information about a health care provider's efficacy

and competency skills about computer interaction to have a higher acceptance of the adoption of the EMR. Ketikidis et al. also stated training in the applicability of health IT systems may result in higher acceptance. Lee et al. (2013) noted that a challenge in the health care industry, besides training, was the support by management in the acceptance of the technology. Although the benefits are well known, it presents a challenge to get medical personnel to adapt to new information technologies. Top, Yilmaz, and Gider (2013) conducted a study in Turkey and found nurses understood the usefulness, however, the EMR system was not integrated into their workflow processes and nurses received little or no training. Top et al. stated the organization lacked strategies in leadership support and training for nurses.

Strategies that include continuous training and technical support are necessary for users in the introduction of clinical systems (Lee et al., 2013). Reis et al. (2013) compared two methods of training on a computer program used for doctors and patients to communicate with each other. The participants were 36 physicians in training residencies, who were tested using simulation patient encounters before actual training. The experimental training took place via a realistic simulation scenario as opposed to training lectures received by the control group. The assumption was that a real life scenario was more important than formal or traditional classroom training (Reis et al., 2013). Reis et al. explained both methods of training led to improved performance and proficiency on the program.

One advantage of the EMR and IT for hospitals is to improve health care delivery. Baillie, Chadwick, Mann, and Brook-Read (2013) specified certain barriers such as skill,

training, and abilities would seem relevant to address before deployment of the EMR. Watson, Benett, and Al-harbi (2014) conducted a study to understand the perceived barriers such as skill, training, and abilities and how these factors affected EMR training. In the study, the authors gathered data through a survey of employees. Watson et al. found that the benefits and ultimate success of HIT depended on factors of training, skill, and use. Top et al. (2013) purported because of lack of training, the result was an increased financial cost, with minimum on return on investment and high time costs.

Pageler, Friedman, and Longhurst (2013) explained there is increasing concern by medical schools questioning how to educate students on EMR integration. According to Pageler et al. first institutions have the option to create real scenarios or simulation-based training to track and test medical students. Second, centers may allow medical student's to have access to the EMR during their clinical rotations when they are entering data and documenting information. Hammoud et al. (2012) surveyed medical students to determine the usage of EMRs. The purpose of this study was to understand the challenges that medical students experience when interacting with the EMR. The students answered 24 survey questions. A total of 346 respondents participated, equaling a 32% response rate. The results indicated that 64% of medical programs allow students the use of EMRs (Hammoud et al., 2012). Almost two-thirds of the medical students were still using written notes on paper.

Pageler et al. (2013) reported that, although students see very few patients when they practice using the EMR, it becomes more meaningful and realistic than a simulation-based scenario. Bassi, Kushniruk, and Borycki (2013) also noted in preparing students to

enter the workforce it was imperative that students obtain competencies about the EMR. How to integrate this technology in the classroom is the question. In the real-world, EMRs have many functionalities to support health care. Some instructors have made a concentrated effort to explore the integration, yet, there are no real strategies and competencies to address the issue (Bassi et al., 2013).

In this section of the literature review, I discussed issues surrounding training and support for EMR technologies. Inadequacies in either of these areas can lead to inefficient use of the systems, as well as frustration that impedes acceptance of the technology. The end result is there is lost potential to maximize the financial benefits of such a system if attention is not paid to these issues. In this study, I sought to discern from participants how training and support affect their acceptance and proficiency in using the EMR.

Barriers and Challenges to EMR adoption

The health care delivery models of the United States are being driven by disruptive innovation, for example, technology (Norman & Verganti, 2014). The goal was to enable providers to move patient data from paper-based to electronic health records (CMS, 2014). DesRoches et al. (2013) stated that, despite fiscal incentives, the nation was not yet close to meeting the goals of widespread adoption of the EMR. The operability needed to support the information exchange for hospitals was incompatible in the United States. Under the HITECH, incentives were authorized worth over $30 billion (CMS, 2014). The purpose of the incentives was to help hospitals accelerate the implementation of the EMR. In DesRoches et al. longitudinal survey, 44% of the

practices had a basic EMR system. Some of the challenges were that although it bolstered patient's satisfaction, it increased physician's work.

Similarly, Babbott et al. (2014) stated that time was a significant factor, and managing information overload resulted in decreased productivity and revenue. A key finding was that hospitals needed to develop a sustainable business model to integrate the EMR into their workflow. Iglehart (2013) stated the cost is indefinable and requires expensive technology. Likewise, Or, Wong, Tong, and Sek (2014) stated that one of the greatest concerns was the return of investment for health care business professionals. Similarly, Colombo, Piva and Rossi-Lamastra (2014) reported that innovation that is state-of-the-art is appropriate. However, there is an importance in defining and outlining the process of the technology to achieve the growth in a business (Colombo et al., 2014).

There are other factors that have created barriers to the adoption of the EMR. Mohammed et al. (2016) conducted a study to identify, categorize and analyze barriers perceived by health care professionals. Mohammed et al. stated 158 respondents participated from a private and public hospital in a survey. After final analysis of the data, two broad categories of barriers surfaced. The two general types were human and financial barriers that the researchers noted as challenges in the implementation of the EMR. These barriers translated into a lack of leadership support and no increased productivity and revenue for health care business professionals (Mohammed & Yusof, 2013). For this study, Mohammed and Yusof chose six selected best practices and frameworks based on how computers affect technology. The purpose was to evaluate how humans viewed HIT from a technological and organizational point of view.

Mohammed and Yusof noted organizations and people set the tone for implementation and acceptance and was significant in influencing HIT information quality (IQ). Organizations did not develop strategies to provide support during implementation to help users understand the EMR system and communication resulted in poor IQ in health care organizations (Mohammed & Yusof, 2013). These factors, along with leadership involvement, staff behavior, attitude, and lack of information caused physicians to view the EMR as time-consuming and demanding.

Abramson, McGinnis, Moore, and Kaushal (2014) conducted a study in which members of leadership in 375 nursing homes leadership completed a survey. The survey was made up of questions that included EMR implementation and barriers to adoption. The authors found that none of the incentives was directed toward the 16,100 nursing homes across the country. Besides escalating costs to implement the EMR, lack of incentives and training was a barrier that affected implementation (Abramson et al., 2014). Abramson et al. explained that respondents also expressed their concern for computerized functionalities rather than use. One limitation was that the study conducted in New York State and New York does not represent the entire United States. At the National Ambulatory Medical Care Survey, Hsiao et al. (2013) carried out a study between 2010 and 2012 to understand the level of implementation. The author found that non-primary care physicians, older physicians, and physicians in small practices had failed to implement the EMR and that barriers still existed in transitioning from paper-based records to electronic systems. Lin, Jiao, Biskupiak, and McAdam-Marx (2013) agreed that in the United States older, single physicians and lower income practices were

slow in implementing the EMR. Due to lack of interoperability, it may affect external validity and hinder efforts to more globally address issues (Lin et al., 2013).

One factor that keeps surfacing is how the cost has affected the implementation of the EMR on the cost-effectiveness of the technology for health care business professionals. Mandi, Khorasani, and Kohane (2012) explained that EHR systems and information technology, in general, have not been proven to control costs. Also, the disparity between products, product versions, settings, and configurations created an enormous variance when it came to the intervention. Gilmer et al. (2012) noted the adoption of the EMR can improve quality and control costs, but additional research could substantiate understanding of how the EMR could shape the benefits and control costs.

Wolf, Harvell, and Jha (2012) explained vendors and providers alike might not understand the type of system to buy that may increase their functionality. Similarly, Reina, Cristofaro, Lacroce, and Ventura (2012) stated there are many systems out on the market sold by vendors that are not compatible for some organizations since they already have certain systems in place. An example cited is the computerized order entry used for ordering tests. Mandi et al. (2012) reported the vendors did not provide guidance or appropriateness to use the order entry along with the EMR intervention. Wolf et al. (2012) explained that if large portions of the health care system remained without and EHR, then the system would remain paper-based, reducing quality and efficiency gains. The limitations of this study were that ineligible hospital respondents that participated in the study were low. Secondly, the participants self-reported, and there was no verification.

Another factor considered a barrier to EMR adoption is time. Boswell (2013) conducted a case study on a group of physicians in Pennsylvania in which 16 employees participated in a one-on-one interview. Boswell noted barriers that physicians had were fear, the learning curve, reduced productivity, resistance, impersonality and increased frustration. Although the EMR is an essential tool for improving communication, quality, and sharing, Ajami and Bagheri-Tadi (2013) explained support, facilitation, and user attributes are necessary essentials. One finding was employees that had a positive attitude were champions ready to promote EHR implementation (Boswell, 2013). The study only included physicians and was not representative of all medical offices implementing the EHR.

Health care policy also effected the adoption of the EMR. Otto and Nevo (2013) noted that, although there were many promises and benefits associated with the EMR, only a small percentage of organizations have adopted the system. According to Otto and Nevo because of the lack of adoption, included in health care policy, and inability to achieve information standards, there was perceived resistance from health care business professionals. The policies and standards across organizations determined EMR implementation and acceptance by users.

Other barriers included training and support, software and perceived use and usefulness. Otto and Nevo (2013) explained policymakers do not understand how compatibility and interoperability of systems work. When policymakers make policy, they sometimes neglect to see how the decisions affect organizations or the workplace. Goldstein (2014) reported policies and regulations were concerns for organizations

implementing the EMR. Similarly, Sinsky et al. (2014) stated that policies and regulation added value to implementation and organizations require time to implement and meet compliance.

There are many facilities and physicians that use the EMR. A barrier to adoption of the EMR is systems crash or downtime. The scale of the problem is even larger when an outage occurs (Or et al., 2014). A bigger drawback was whenever a system collapsed, for example, in Boulder, Colorado or the East Bay area of California (Collier, 2014). The hospitals either did not have a backup plan, or management's inability to adapt the best strategies to prevent downtime was a failure. Outages were common and hospital organizations did not have a contingency plan, or their warranty had expired (Collier, 2014). For example, when hospital leaders lost their EMR system the problem was traced to a faulty server 10 hours later. The 5-year-warranty had just expired. Due to these outages, communication was a challenge between departments and tasks such as billing for services rendered cost the organization millions of dollars (Collier, 2014). Hasanain and Cooper (2014) reported that in the United States, 44% of hospitals did not implement EMR systems because of the high maintenance costs. This was due to hardware or networks breaking down frequently, which has become a maintenance burden. Business professionals lacked strategies for contingency plans during systems breakdown which resulted in lost productivity and revenue.

Electronic medical records are essential to high performing health care organizations. Sittig, Gonzalez, and Singh (2014) conducted a study to determine the disruption caused by EMR failure and what other systems exist to maintain consistency

and uninterrupted care. Sittig et al. used other studies and professional opinion to assess implementation of useful practices. The responses received came from 84% of member institutions, with 96% mentioning a minimum of one unscheduled interruption in an 8-hour period (Sittig et al., 2014). Respondents reported that unplanned downtime directly resulted in patient injuries in the hospitals. Zadvinskis, Chipps, and Yen (2014) explored nurses' expectations regarding IT and found that a majority of nurses conveyed their frustration with operational failures, including software issues and power loss.

Unexpected downtime appeared to be relatively common among organizations, and they did not follow useful practices to mitigate the disruptive availability. Park, Sharman, Rao (2015) found to decrease a hospital's disruptions during vulnerabilities, a solution was to increase IT capabilities. Sittig et al. (2014) explained hospital organizations were lacking backup power and generators, supplies, paper backup, and writing protocols. An example was with Hurricanes Sandy and Katrina in which widespread communication systems were broken down and the loss of extensive clinical information realized (Sittig et al., 2014).

In another case study conducted by Melin and Axelsson (2014), the success or failure of implementation of the EMR depended on whether physicians accepted or resisted EMR implementation. One outcome of the result was that management needs to clarify the needs, values, and preferences of users (Melin & Axelsson, 2014). Reina et al. (2012) and Woolthuis, Hooimeijer, Bossink, Mulder, Brouwer (2013) reported organizations that did not have a clear vision lacked the knowledge of how to adopt the EMR. Reina et al. (2012) explained because of the lack of vision the move towards

implementation of the EMR was often unsuccessful. The lack of vision by management often causes conflict because of financial and legal processes in the adoption of the EMR (Reina et al., 2012).

The articles that I identified in the review demonstrated a wide scope of potential barriers in implementing the EMR. Despite the encouraging effects of using the EMR in business practices, the resistance was high and the adoption was low. The EMR requires a system and user attributes, support from managers, time, and a sustainable business model to integrate workflow and productivity. For the EMR to have a positive effect on increased productivity and revenue, health care business professionals need to look at systems with compatibility, time for integration, finance, and the human factor of user acceptance and PEOU. Considering these factors identified in the review, the possibility exists for business professionals to increase productivity and revenue.

Benefits of the Electronic Medical Record

The EMR has many benefits and advantages that may improve health care. Widespread EMR use may lead to significant benefits to include cost savings for providers and customers that may result in improved health for the nation (Lau et al., 2012). Kumar and Bauer (2011) used a RAND Corporations analysis estimate that nationwide adoption may save annual savings of approximately $81 billion with transcription savings of $12 billion a year. Another benefit was that an EMR system could reduce errors made by business professionals that are costing the health care industry $2 billion on an annual basis (Kumar & Bauer, 2011).

After the implementation of an EMR, health care providers reported 50% to 90% in cost savings over the first 5 years. Lau et al. (2012) found that hospitals and organizations are making increased investments in the EMR. The outcome that business professionals are hoping to achieve is for the EMR system to improve productivity, care coordination, patient safety, and to control costs. Kumar and Bauer (2011) agreed health care business professionals have concerns about the cost to consumers and on increasing revenue for their business practice. Payne et al. (2013) explained that because the EMR was expensive to implement increased revenue for physicians and hospital organizations decreased in the short term. Instead on a long term basis increased revenues came from strategies implemented on how well they maintained records from improved billing and collections with an EMR system.

Part of the rationale for using the EMR was the clinical benefits that it provides to providers and other staff. King et al., (2014) assessed whether the EMR generates benefits or had a correlation with EMR implementation. King et al. stated that 30% to 50% of physicians communicated that the EHR accounted for benefits. These benefits included patient care, ordering tests, and communication. Physicians reported that the EHR enhanced the quality of patient care overall. King et al. indicated that while physicians were among the highest users that reported EMR satisfaction and benefits, nurses also used the EMR.

Although nurses use the EMR in hospitals, researchers have shown there are limited studies conducted universally. Top et al. (2013) conducted a study based on how nurses managed management information, entries into the database system, quality and

service rendered to patients. Top et al. examined how nurses perceived the EMR and if there were any differences. Top et al. used a Likert scale to measure the responses to a questionnaire in which 517 nurses participated in a survey with a total of 66.70% response rate. Top et al. stated the nurses felt implementation of the EMR improved the quality of information by eliminating excess paperwork. Goldsack and Robinson (2014) argued one area where the technology was unlikely to show success and improvement was with efficiency since certain operational efficiencies were misunderstood by nurses. The results are consistent with results from previous studies examining nurses' attitudes towards the use, quality, and value of the EMR. The information contributes to the study of the adoption of the EHR since the findings are consistent with prior research.

Another rationale for implementing the EMR system is hospital leadership can use the system to coordinate between providers and public health officials and constituents. The EMR may be part of the triad along with providers and community leaders that may help communities meet their health goals. Calman, Hauser, Lurio, Wu, and Pichardo (2012) noted providers used the EMR system to retrieve current information to assist in maintaining healthy communities and promote health activities. Public health leadership and providers used the EMR to monitor and act as a surveillance tool to manage communicable disease and to monitor patient demographics (Calman et al., 2012). Klompas et al. (2012) explained that EMRs may be used to support public health through quicker scanning of data and transmission to other departments.

Providers and local community leadership used data from the EMR and monitored trends in real time about shifting needs of the population during outbreaks

(Calman et al., 2012). An example of the local community leadership that used the EMR was the Institute for Family Health centers providing care to more than 80,000 patients in New York City and the Hudson Valley. The family health centers use the EMR to analyze and communicate data to public health agencies to sustain the development of disease outbreaks (Calman et al., 2012; Klompas et al., 2012).

Although there was much discussion about EHR and how the system may be used to control costs, results show that the benefits are not consistent (Kiah, Haiqi, Zaidan, & Zaidan, 2014). Reed et al. (2013) performed a study at Kaiser Permanente in Northern California between 2005 and 2008. The goal of this study was to examine changes related to the use of the EHR using a sample of 169,711 diabetic patients. The purpose was to quantify the effect of EHR use on negative clinical occurrences using a multivariable regression analysis. Reed et al. indicated that there were less patient visits, accounting for 28.80 fewer visitations per 1000 in hospital organizations that had implemented the EHR. The authors found the EHR also accounted for fewer hospitalizations, to a mean of 238.50 per 1000 patients compared to a hospital with no EHR with an average of 251.50. Reed et al. noted there was a lack of studies conducted that show how the EHR affects increased or reduced costs.

Electronic medical records have been shown to enhance data sharing among physicians that help hospital leaders reduce costs and increase the quality of medical services (Payne et al., 2013). The EMR improved the integrity of information concerning coping with missing records. Ting, Lp, Tsang, and Ho (2012) noted sharing of data increased in organizations that implemented the EMR. The exchange of data helped to

reduce costs and raise medical service standards for organizations. Likewise, Payne et al. (2013) found these costs, in turn, would mean an increase in revenue for health care business professionals (Payne et al., 2013). Another value added besides the distribution of data was that communication increased among providers. One form of communication was that physicians received an alert when they prescribed the wrong drugs to patients from the EMR system (Guy et al., 2014; Ting et al., 2012).

One system that providers use to track and manage the quality assurance data within the health care system in hospitals is the EMR (Zheng, Rokoske, Kirk, Lyda-McDonald, & Bernard, 2014). Zheng et al. conducted a study to explore the use of EMR-based Quality Improvement (QI) in hospices. The method used was self-reporting, with 911 hospices participating nationwide collecting data for quality assurance purposes. Reporting (QIs) was at 34.3% in comparison to paper reporting used by hospices at 12.5%. Similarly, Guy et al. (2014) used a mixed-method approach to understanding the benefits of the EMR system and the effect on government policies. In the study, 21 experts participated in a Delphi study with surveys completed by 431 physicians. Guy et al. found first, professionals can use the EMR to solve a logistical, organizational problem through automation. Second, professionals can spend more time in clinical decision making with the use of the EMR. Third, with the use of the EMR physicians can focus more on patient care while lowering the costs of overseeing medical information.

Guy et al. (2014) suggested that if the government and other stakeholders can understand the importance of the benefits and barriers, they can focus on implementing policies to support hospitals and other practices. For example, Weiss and Nunes Amaral

(2013) stated that the Veterans Affairs (VA) leadership used the EHR system to restructure their processes from a research study to decision support. The VA used the EMR in the H1N1 outbreak in the United States, where leaders used the data repository to diagnose other diseases and for geographic tracking (Weiss & Nunes Amaral, 2013). Besides the integration of care and flow of information, the EMR used as a medium of communication may decrease health care costs, increase workflow, and improve collaboration among community leaders (Weiss & Nunes Amaral 2013).

Another rationale for implementation is that managers see the EHR as a partial solution to enable the efficient delivery of care to the elderly in nursing homes (Zhang, Yu, & Shen, 2012). Zhang et al. (2012) conducted a study using semi-structured interviews with 110 staff members to develop and understand the type of care rendered in nursing facilities. Examples of questions asked during the interviews included what were the biggest challenges faced in delivering excellent care to residents, and how well does the EHR enable communications with external providers, such as business professionals? Zhang et al. explained the benefits realized by the managers include improved documentation, information, knowledge, growth, and empowerment of staff. Health care business professionals believed that the effectiveness and record documentation increased and inputting data was effortless when compared to writing in a chart. These findings show that to understand the resistance and barriers to implementation of the EMR, health care business professionals have to realize the benefits that are appropriate strategies to overcome barriers (Weiss & Nunes Amaral, 2013). Van Eaton et al. (2014) explained the

EMR systems were not standardized, features were different and there was a high rate of vendor turnover.

In my review of the selected articles, I have shown a wide array of potential benefits to implementing the EMR. In these articles, the benefits offset the costs of implementation and adoption of the EMR. Besides reducing health care costs and improving workflow, the EMR is a great success for business professionals that show productivity increase and revenue. With business professionals leveraging the advantage of the EMR, increases in revenue may not be noticeable in the short term, but prove viable for sustainability in the long term. Through interviews with the participants, I asked questions about benefits of the EMR and the strategies needed to maximize the benefits. From the responses, I gained insight into how to increase acceptance of the EMR by business professionals and their organizations, which in turn can maximize productivity and revenue.

Safety and Security Concerns With the EMR

The ability to share information via the EMR is a powerful tool. However, privacy and confidentiality concerns related to the EMR are significant and difficult to predict. The government leadership offered $19.2 billion worth of incentives for deployment of the EMR by 2015 (CMS, 1202a). With the subsequent increased use of EMR systems, there is a concern for providers, patients and the government about privacy, confidentiality, safety, and security (Cooley & Smith, 2013). Despite the advances in technical capabilities, Gkoulalas-Divanis, Loukides, and Sun (2014) stated provisions for privacy and anonymity of patients is lacking in EMR systems used by

organizations. In general, vendors have not addressed the confidentiality requirements that are essential to providing quality care (Anoshiravani, Gaskin, Groshek, Kuelbs, & Longhurst 2012).

Meslin et al. (2013) stated there are guidelines to help manage information security with the use of the EMR, yet there are some areas that are vulnerable and could prove to be consequential when applied inappropriately. These guidelines come under the Health Insurance Portability and Accountability Act (HIPAA), that covers a patient's protected health information (CMS, 2013). The concern is that integration of the EMR has created some ethical and privacy dilemmas. An example of a breach of confidentiality can be as simple as calling to make or confirm an appointment; the EMR contains a wealth of information about the patient that they may consider to be private. Beard and Hamid (2014) explained users have immediate access to patient records, with little restraint for unapproved access. One reason for concern was that everyone may have access to patient information unless restrictions are enforced.

Based upon what Beard and Hamid (2014), explained previously about confidentiality, having many users able to access patients information is detrimental to security and privacy. Meslin et al. (2013) specified when organizations design EMR systems and policies they need to balance risks such as these ethical considerations. The hospital leadership may need to change their culture of primary risk management and adopt a new paradigm to manage ethical considerations.

Anoshiravani et al. (2012) stated that because state laws differ, individual hospitals have addressed confidentiality issues independently of each other. Due to the

fragmented nature of how the privacy laws support critical capabilities related to security and confidentiality, controls are often missing or randomly implemented (Anoshiravani et al., 2012). Brooks and Erickson (2012) suggested that to meet compliance a formal institutional policy needs to be in place to address concerns of privacy, information security, legal affairs, risk management and compliance. These ethical concerns include a lack of familiarity with the EMR, cost, security and ethics. Taking all these factors into account, both ethical considerations and access to information was an important solution to implementation.

When government leaders write policies and regulations, there is little doubt that they consider the end use. How government leaders write these policies affects the understanding and application of the policy for the United States (CMS, 2013). Vest, Campion, Kern, and Kaushal (2014) stated the governments of both the federal and the state levels support HIT and information exchange by establishing policy. Vest et al. (2014) conducted a study and collected data using semi-structured interviews with health organization staff, providers, and federal state agencies. The questions were open-ended, and data gathered using phone interviews. The areas assessed were value, privacy, and security.

Vest et al. (2014) found that policy and regulation varied amongst states and the federal government. Due to the differences in policies and the way government writes laws, interpretation of meaning has created complications for providers and developers of HIT (Otto & Nevo, 2013; Sinsky et al., 2014). Vest et al. explained the states should have a focus on the implementation of HIT, and the federal government should have a greater

focus on policy-setting. Because of how these policies are written, hospitals may be at greater risk based on who has access to the EMR. If there is unauthorized use of access hospitals can have lawsuits which drive up cost and decrease revenue for health care business professionals.

In addition to security, there have been reports of safety issues that are linked to use of the EMR. For example, problems with missed medication orders or documentation errors have been reported (Or et al., 2014). These issues dictate that the organization needs to focus on its culture of safety with relation to the EMR. Every organization has its own unique culture and health care organizations are no exception. How people interact, leadership actions, and shared values determines the outcome of the safety culture in a health care organization (Górny, 2014). McGuire et al. (2013) evaluated and measured the safety culture of an organization after implementation of the EMR. The safety culture was assessed using a questionnaire given to primary care practices. McGuire et al. indicated there were concerns, even though time constraints, communications, and acceptance of the EMR by patients improved the safety culture. McGuire et al. suggested to avoid an adverse effect, safety organizations should continuously monitor how the staff uses the EMR. One example is having a change champion and give training to staff before, during and after implementation. The continuous training and monitoring may avoid an adverse effect on safety.

Modern health care environments are tasked with implementation of EMR systems intended to benefit patients and the health care system, yet are fraught with risks (Anoshiravani et al., 2012). Managers should consider a framework of quality, safety and

security concerns, and an organization's culture for successful implementation of the EMR, refocusing the staff's roles and improving functionalities (Górny, 2014). These issues are integral to this study because failure to manage these risks threatens to limit the benefits and acceptance of patients, as well as the productivity and revenue associated with the EMR.

Leadership and Transition

How health care business professionals achieve the medical record transition from paper documentation to the EHR determines the outcome of the adoption of the EHR. Health care business professionals need to develop a strategy and get input from all stakeholders on the adoption of the EHR to obtain results (Guy et al., 2014). Cresswell and Sheikh (2013) found the steps taken from adoption to implementation of the EMR is important to create the balance needed to achieve these goals.

How leaders streamline these efforts accelerates the business opportunities and fit for the organization (Cresswell & Sheikh, 2013). Likewise, Mayfield, Mayfield, and Sharbrough (2015) explained that when outcomes are addressed through the vision of the organization, and this vision communicated to employees, performance increases. To analyze leadership's role, Cresswell et al. (2013) studied a series of national evaluations of information technology systems to enhance EHR implementation efforts. First, leadership has to define the vision, purpose, and direction the organization develops to execute the strategy by clarifying what the technology is designed to solve. When health care business professionals explain the vision, seek collaboration, and communicate to

employees, the outcome is the adoption of the EMR resulting in increased productivity and revenue.

Cresswell et al. (2013) recommended leadership should use words such as shared vision rather than improved quality of care and improved efficiency. Words such as quality and effectiveness define a functionality or outcome while shared vision represents collaboration with other stakeholders (Cresswell et al., 2013). Woolthuis et al. (2013) agreed organizations obtain shared vision through change, collaboration, and transformation by building consensus. For example, the aim may be to implement the EMR focusing on streamlining a process rather than to introduce a system for change. Leadership may solicit input from providers, professionals, and other staff for final consideration (Cresswell et al., 2013; Woolthuis et al., 2013). Likewise, Alt, Díez-de-Castro, and Lloréns-Montes (2015) agreed that, when staff are comfortable with management and guided by a shared vision, their contribution is more meaningful through collaboration and communication. Through collaboration, shared vision, and communication, leadership may achieve buy-in and also endorse representation from other health care business professionals, and share strategies for EMR use to increase productivity and revenue.

Health care business professionals should consider their options. Leadership should consider adequate time (Higgins et al., 2012; Molina-Azorin et al., 2012) and resources when choosing an EMR system (Ingebrigtsen et al., 2014; Sinsky et al., 2014). For example, the administration should seek to understand the suppliers to procure the system, as this adds the most value to the organization (Ingebrigtsen et al., 2014).

Leadership may consider strategies such as benchmarking from another organization that has implemented a system, which may result in reduced costs for implementation of the EMR. Cresswell et al. stated there are many EHR systems procured by leadership and never used due to feedback, interface, and tracking system performance. These strategies considered by health care business professionals involve choosing a compatible system, benchmarking, and procurement, thereby increasing productivity and revenue on their return on investment.

To facilitate supplier and user relationship, leadership should plan appropriately and engage extensively with suppliers to increase collaboration (Chathoth, Altinay, Harrington, Okumus, & Chan, 2013). Likewise, Cresswell et al. (2013) stated that the scope of the project is important and maintaining open communication with stakeholders is paramount. For example, Cresswell et al. found that when leadership runs parallel systems, for example, paper and electronic systems, workload increases for end users. The right infrastructure becomes important in planning, which may result in shaping user attitudes, interface, software systems, and speed of transmission in the implementation of the EHR (Wallace & Sheetz, 2014).

Training for health care business professionals tailored toward their roles needs to be included in the strategic implementation of the EHR system in the workplace (Cresswell et al. 2013). Health care business professionals need to have hands-on practice to develop skill in interfacing with the EHR systems (Bassi et al., 2013). An example is older users may need more time and more basic training. Likewise, Bullough, Sully De Luque, Abdelzaher, and Heim (2015) found when business professionals

received training, they gained new knowledge and developed more skills, increasing the likelihood of greater performance. Besides training, leaders need to monitor and track performance. Through training, analyses of data and monitoring of trends, health care business professionals can develop innovative ways to utilize the EHR thereby increasing productivity and revenue.

Although updating and maintaining the system is costly, leaders need to stay the course. Instead of thinking short-term, the objective is to embrace a long-term strategy to maximize the benefits and transform the venture (Bullough et al., 2015). Creswell et al. (2013) and Top et al. (2013) stated the cost to implement the EHR, and the small return on investment in the short-term were barriers to adoption.

To overcome the barriers to implementation organizations need to incorporate teamwork, collaboration, empowerment and training (Cresswell & Sheikh, 2013). An EMR system should not only be usable, but useful and correctly introduced to the organization. Health care business professionals need to engage employees with training and responsiveness to meet the needs and expectations, thereby increasing productivity and revenue through a shared vision (Mayfield et al., 2015). By having a shared vision and way to achieve this vision, an organization may overcome barriers to implementation (Woolthuis et al., 2013).

Another strategy health care business professionals can capitalize on is the design features of the EHR system. Horsky et al. (2012) examined the design features of EHR systems by reviewing reports from organizations that implemented the EHR. The information gathered provided developers with design examples and recommended

principles. Horsky et al. discovered the professionals that come together to work on the design interface are providers, physicians, and computer specialists who often lack a diverse set of skills. Ajami and Bagheri-Tadi (2013) agreed very few organizations implementing the EMR consider the provider, patient, and the use of the EMR. The implemented systems often fall short of delivering the full benefit of the EHR potential and fail to achieve superior performance levels in the human interface.

The display of medical data is not in the proper context or the format of information is not integrated well for providers to use in the clinical environment (Ajami & Bagheri-Tadi, 2013). These faulty designs may lead to a decrease in cognitive performance by health care business professionals, leading to unintended consequences and errors. Yet, despite advantages in using the EMR the adoption rate is still low (Lau et al., 2012).

Health care business professionals can formulate a plan by identifying their organizations' strengths and weaknesses (Hatami-Marbini, Tavana, Hajipour, Kangi, & Kazemi, 2013). Leaders can then use this plan to create positive long-term strategies that may contribute to the success of IT adoption and integration. Through strategic management, health care business professionals may improve their processes and cultivate partnerships through collaboration to enhance the integration of IT (Woolthuis et al., 2013). Ingebrigtsen et al. (2014) conducted a methodical assessment to examine evidence on what roles leaders played in the adoption of technology in health care organizations. Ingebrigtsen et al. reviewed articles on (a) the setting of health care provider organizations, (b) the technology, (c) the process of adoption, and (d) the

intervention implemented by leaders. Ingebrigtsen et al. found providers who had the knowledge and skillset were likely to remain motivated and had a commitment to the use of IT.

How well the leaders supported the staff and other stakeholders in the allocation of resources also determines long term achievement (Woolthuis et al., 2013). Their overall conclusion was that HIT needs the support of leadership to support the delivery of better patient outcomes. Through collaboration and use of IT, health care professionals could maximize performance resulting in increased productivity and revenue (de Mattos & Barbin Laurindo, 2015). Leaders still need to emphasize their vision through collaboration to lead the transformation for IT integration.

In the analysis of the peer-reviewed articles, I identified that strong leadership, management techniques, establishing policies, standards, training staff, and resource support are essential for implementation success. Leaders understand that their hospital organization does not have unlimited resources and so must decide what strategies benefit the organization the most. Areas important to business professionals include vision, defined direction, principles, and allocation of resources. By conducting a SWOT analysis as a strategy for implementation, business professionals may take advantage of the organization's strengths and improve on weaknesses. By interviewing participants I explored what strategies business professionals may use to implement and achieve high performance and increase in revenue. The responses may lead to transformation and change for other business professionals.

Application of Conceptual Framework to the Literature Review

Technology is useful when embedded in an organization. Some hospital leaders tend to treat the EMR as an addition rather than as a fundamental part of the practice. Leaders may bring in the best technology possible; however, to business professionals the technology is meaningless unless users are comfortable and proficient in the use of the EMR (Bassi et al., 2013). The human side of EMR implementation is a required focus for hospital leadership to engage and prepare health care business professionals to succeed in the adoption of the EMR (Mohammed & Yusof, 2013).

One of the biggest barriers to efficient use of the EMR technology is a lack of training. Health care business professionals give many reasons why the implementation of the EMR is cumbersome. First is not having the resources they need to support them during implementation (Sinsky et al., 2014). Second, the computers do not work as expected when they need to use the technology (Sittig et al., 2014; Zadvinskis et al., 2014). Third, business professionals do not receive sufficient practical application-based training as a user of the EMR (Hammoud et al., 2012). Fourth, the health care business professionals do not have enough time for experimentation. The EMR then becomes a hindrance between providers, other staff, and patients. Fifth, business professionals are not comfortable with how the tool changes their interaction with their patients.

Iqbal et al. (2013) stated many researchers conducted studies to explain the validity and reliability of PEOU and PU using TAM. For example, Iqbal et al. used TAM and examined the relationship of the physician perception to the adoption of the EMR. The aim of using TAM was to evaluate the technology acceptance and users' behavior

and intention toward new technology adoption. The following areas were measured using the TAM model: behavior intention, adoption behavior, perceived usefulness, security, privacy, intention to use and ease of use. Similarly, Melas et al., (2011) stated studies conducted by other researchers show that they used several other models to explain the acceptance of communication technology. The authors reported that the TAM is one of the most tested and recognized models among other models to use in EMR acceptance in health care.

Studies that have been investigated by other researchers showed that the TAM is a useful predictor of behavioral intent to accept technology in health care. Moores (2012) developed a theory for technology in health care using TAM, stating that work ethic is an important factor for technology acceptance. For example, training and minimizing effort are essential for beginners while knowledgeable users appreciated quality and value. The EMR provided the framework for providers to share medical information and provide better care, eliminating errors, reducing costs, improving productivity, and increasing revenue. Dutot (2015) explained TAM was a model that researchers use to understand how intention, use, and improved understanding affects IT efficacy. According to Dutot TAM is considered one of the most simple, analytical, and robust among the theoretical models. Yoon and Steege (2013) stated to use the TAM theory in studies of technology acceptance a concern is the personality of the research participants.

Transition

One initiative of the Clinical Health Act passed in 2009 was the adoption of the EMR by health care business professionals (CMS, 2015). With adequate implementation,

health care business professionals realized increased productivity and revenue for their business. In spite of the incentives authorized by the government leadership, the adoption and usage rates of EMR technology have been dismally low.

Despite the demand for EMR technology business professionals face challenges that hinder increased productivity and revenue (Adler-Milstein et al., 2013). In the literature review, the strategies that were lacking in the implementation of the EMR by health care business professionals included behavior, attitude, lack of information, education and training, organizational support, human, and financial barriers. Some of the successful strategies business professionals use showed increased savings, an effective business model, leadership, increased communication, workflow process, and training to increase productivity and revenue (King et al., 2014; Kumar & Bauer, 2011; Lau et al., 2012).

Having knowledge and comprehension of these strategies may add value to further developing useful strategies for business professionals to increase productivity and revenue. Other researchers conducted research on what strategies business professionals use to increase productivity and revenue. These researchers confirmed the need for business professionals to understand what strategies increase productivity and revenue (Guy et al., 2014; Ting et al., 2012; Weiss & Nunes Amaral, 2013).

The method to explore this phenomenon included a qualitative approach, and the conceptual framework includes the TAM (Fishbein, 1967). I used the TAM to determine the relationships, attitudes, and perceptions of how the innovation affects the implementation of the EMR. Most leaders in hospitals used the TAM to understand the

implementation of technology or the EMR (Dutot, 2015; Fishbein, 1967; Moores, 2012). By using the TAM theory, researchers were able to understand how health care business professionals accept or refuse the need for improved technology or computer innovation. Due to this rejection health care business professionals have failed to take advantage of a change and exploit the potential of the EMR, thereby increasing productivity and revenue (Moores, 2012). Consequently, I identified a problem that presented an area of concern for business professionals on what strategies they use to increase productivity and revenue with the implementation of the EMR. There are several studies that show business professionals increase productivity and revenue in hospitals with the integration of the EMR (Davis, 1989; Davis et al., 1989).

In Section 1, I described the problem, purpose, and research question. The literature review included topics, information, and research used to conduct this study. The literature review was conducted to generate an understanding of what strategies health care business professionals use to implement the EMR and increase productivity and revenue for their business.

In Section 2, I present a plan designed to achieve a particular aim in the study through the methodology and the research design. The blueprint includes areas such as the functions of the researcher and the contributions of participants that participated in the research. In Section 2, I present an analysis of data collection and methods used to collect data. Finally, the areas such as the ethics and validity of the data were examined. Section 3 includes the presentation of the findings and the importance of change in society and hospital organizations.

Section 2: The Project

The purpose of this qualitative, single-case study was to explore what EMR strategies health care business professionals use to increase productivity and revenue. Section 2 includes the framework for the methodology and design of the qualitative case study, beginning with the purpose and role of the researcher. I discuss the role of the participants and emphasized how I gathered the data to understand more about the topic researched. Next, I explain why I used the qualitative approach for this study, with an explanation as to why the qualitative method is superior to the quantitative method for this application. I compare the single case study design to other models such as ethnography, narrative, phenomenological and grounded theory as justification for its use. I define population sampling as the selection of participants that I used in the study from a larger population.

The next component in this section is the ethics of the research, in which I address consent forms and the provision and requirements for privacy, sensitivity, confidentiality, and identification of participants. In the data collection instruments component, I cover how I collected data. Other tools I used are taping the interviews and using other documentary data that added to the validity of the project. Finally, in Section 2, I provide a detailed discussion on the analysis of the data and contributions to the study.

Purpose Statement

The purpose of this qualitative, single-case study was to explore EMR strategies health care business professionals use to increase productivity and revenue. The target population was composed of health care business professionals in Orange County, New

York. The population was appropriate for this study because health care business professionals receive reimbursement through documentation of care provided to clients. The fee for service paid to hospitals by Medicare or Medicaid depends on service provided and the documentation of meeting the meaningful use requirements. The implications for positive social change include decreased health care cost, and improved health care access, safety, quality, and efficiency for all U.S. citizens (Adler-Milstein et al., 2013). The outcomes of this study may contribute to the business environment through the collaboration of business professionals, and the results may help to control costs to consumers and increase their productivity and revenue through the implementation of the EMR (Kumar & Bauer, 2011). The outcomes of this study may add a change in society and culture through improved quality, efficiency, and safety by accelerating these benefits in health care for the United States.

Role of the Researcher

The researcher serves as a medium for collecting data in a qualitative study. I collected data through semistructured interviews. To fulfill this role, all stakeholders in the research needed to know about the human instrument (Chan, Fung, & Chien, 2013; Marshall & Rossman 2016). Another role of the qualitative researcher was to describe relevant aspects of self, which include biases and assumptions, expectations, subjectivities, and experiences when conducting research (Cox, 2012; White & Poldrack, 2014).

I work in a medical facility and I am familiar with the Armed Forces Health Longitudinal Application (AHLTA) system. In addition, I have knowledge of the EMR.

The AHLTA system is similar in some respects to the EMR. I collected and considered data from a purposive sample of health care business professionals in Orange County, New York. This included the area where I live, but not within my organization or place of employment. McDermid, Peters, Jackson, and Daly (2014) discouraged research in a researcher's own working environment as problems may arise. For example, a researcher may be too embedded in the setting, share knowledge or experiences of the workplace, or may be acquainted with participants' personal situations (McDermid et al., 2014).

As a researcher, I adhered to the three values of the Belmont report (HHS, 1979). The three main standards of the report require that I respected the participants and treated them as autonomous agents, as well as provided them sufficient information about the study so they could determine whether they wanted to participate. To accomplish this value I had pseudo names in the transcription of data for P1, P2, P3, P4. P5, P6, and P7. I reminded participants at the face-to-face interview that they did not have to participate in the research and they could stop at any time during the interview. If participants needed a break they were free to do so. Second, participants suffered no harm while maximizing the benefits to the research goals. Third, I provided genuine respect, fairness, and equitably distributed the risks and benefits to all participants including the community (Brakewood & Poldrack, 2013; Singh, 2015). I treated participants with courtesy, respect, and reminded them that there are no incentives or pay for completion of the interview. I reminded the participants that the advantages of participating in the semistructured interview added value to gain new knowledge and reinforced previous information as a breakthrough for implementation of the EMR by business professionals. I upheld all

ethical standards during and after the study by maintaining compliance as set forth by the Belmont report.

To mitigate bias and view data from a personal lens, I engaged in bracketing, a means of acknowledging one's biases that may tarnish the process. Through bracketing, a researcher may table these involvements during the study and view data with less bias (Tufford & Newman, 2012). Sometimes a researcher may experience a challenge in understanding the viewpoint of others because one's own involvement, values, beliefs, and intuitions affect the collection of data (Marshall & Rossman, 2016; Tufford & Newman, 2012). Moreover, when a researcher can acknowledge their bias, they can better understand the viewpoint of others and be less subjective (Fischer, 2009). Through bracketing, a researcher can also expose bias not readily eliminated (Thomas, 2015).

A powerful way to understand and know people in qualitative research is through interviews. Schaller, Liedberg and Larsson (2014) explained that the data obtained during interviews with participants is often rich information, vital to planning new services and modifying the system to better meet the needs of the users. I used an interview protocol for consistency (e.g., Schaller et al., 2014) to ensure that I discussed all questions with the participants. The interview procedure applied to all participants. The interviews resembled a guided conversation, asking questions in an unbiased manner and following my line of inquiry. I adhered to all ethical standards based on the Belmont Report (e.g., Brakewood & Poldrack, 2013). The interview protocol (see Appendix C) consisted of an initial script which included participant names, institution, interviewer, interview background, education, interview questions, closing comments, and point of contact

information. I explained why I conducted the study. I explained informed consent and got any final signatures to participate in the study. I gave participants my contact, email information, and ended with a script thanking participants. Gioia et al. (2013) stated an interview protocol covers a short script, research questions, prompts and final contact information for participants. This not only develops trust and transparency but adds value to validity and credibility (Gioia et al., 2013).

Participants

A researcher may conduct a qualitative study from a specific geographic area (Yin, 2014) with multiple participants who have experience with the EMR. Therefore, I conducted the study in Orange County, New York. The criteria to select these health care business professionals is they must have had representative EMR experience and EMR strategies business professionals use to increase productivity and revenue. Petty, Thomson, and Stew, (2012) and Booth, Carroll, llott, Low, and Cooper (2013) stated that the criteria used in meeting the requirements for a study help researchers attain correct, rich and significant findings.

I sought five or more experienced participants who use EMR strategies and until saturation from that point forward I interviewed seven. Kasim and Al-Gahuri (2015) and Vest et al. (2014) stated that when a researcher achieves saturation, data begins to repeat, which becomes counter-productive. The result is that additional data collection does not add anything new to the overall responses already collected (Kasim & Al-Gahuri, 2015; Tonberg, Harden, McLellan, Chin, & Duncan, 2015). Health care business professionals who meet this criterion include assistants, nurses, nurse practitioners, IT, and clerks.

Khosla, Marsteller, and Holtgrave (2013) stated that collaboration is valuable and meaningful when there is voluntary interaction to gain resources or access to services that could help to achieve goals. Collaboration can influence success on information sharing, planning, and gaining resources (Ramanathan & Gunasekaran, 2014; White & Danis, 2013).

Establishing a working relationship is key to successful qualitative research (Irwin, 2013). To establish a working relationship I clarified my intentions, principles, and positions in my communications with participants. I ensured participants were comfortable and they could withdraw from the study at any time. I listened and did not use power to control any of the participants. MaCartney (2012) stated an ethics of care approach reassures participants through listening, communication, and how a researcher connects with participants. A researcher's goal is to connect at the human level with the participants (Schaller, Liedberg, & Larsson, 2014). Likewise, Irwin stated the research findings are constructed between researcher and participant. I read my script, asked questions and expressed my gratitude in the end. I maintained their human rights, adhering to the Belmont Report.

Irwin (2013) stated participants need to feel safe and trust the researcher to share experiences and be open to their perceptions. Similarly, Gresham (2012) found participants need assurance that their interests in the study are respected. I explained the research question to participants so they understood the value of the input they gave towards the EMR study. The positive working relationship established through these methods ensured participants' responses honestly portrayed their opinions and

contributed to the knowledge of what EMR strategies business professionals use to increase productivity and revenue.

Research Method and Design

Yin (2014) stated the research method is a unique framework that a researcher uses to guide a research project. In essence, a research method is an approach used to tackle various research questions (Marshall & Rossman, 2016). I used a qualitative method for this study. The design of this proposed study served as a blueprint specifying a specific technique that is useful in answering a specific inquiry (see Yin, 2014). I used a case study design. The focus of this study was to explore strategies that health care professionals use to increase productivity and revenue. More inquiry into the strategies that health care business professionals use to increase productivity and revenue is a requirement (Gilmer et al., 2012; Lau et al., 2012; Zheng et al., 2014). To understand the experiences of health care business professionals I used a qualitative single-case study. Once IRB approved the research proposal, I commenced the study.

Method

I selected a qualitative method because the purpose of my study was to explore what EMR strategies health care business professionals use to increase productivity and revenue. The qualitative research aligns with exploring the strategies because participants can express their experiences in their own words (e.g., Hynes 2012; Najafi Kalyani, Illon Kashkooli, Molazem, & Jamshidi, 2014; Yin, 2014) for health care business professionals to increase productivity and revenue. To explore the real-life situations of the health care business professionals with the EMR, I chose the single-case study

methodology. According to Yin (2014) to explore a real world case of an everyday situation, the single-case study is the preferred methodology.

The qualitative method aligns with the specific business problem of trying to understand strategies health care business professionals experience in implementing the EMR. Barriers to implementing the EMR may interfere with their ability to take advantage of the business opportunities (Mohammed et al., 2016). The qualitative method gives the participants a chance to express themselves in their words (Coenen, Stamm, Stucki, & Cieza, 2012; Irwin, 2013). Irwin (2013) stated that researcher using a qualitative analysis technique uses words rather than numbers as the basis for analysis. I generated data through interactions between myself and the participants. Irwin explained because of this interaction, trust and a sense of duty develops amongst the researcher and the participant. This is important because I used a qualitative methodology to get data and conduct the analysis, adding more validity to the study (Marshall & Rossman, 2016).

Qualitative research is ideal for asking how and what, instead of how many, based on measures which are the foci of quantitative research (Gioia et al., 2013; Hynes, 2012). Dhanireddy et al. (2014) and Slight, Quinn, Avery, Bates, and Sheikh, (2014) used a qualitative method and studied the strategies that health care business professionals use to increase productivity and revenue, which adds justification and value for a qualitative method for this study. This is important for a qualitative study because researchers can collect information through records, field observations, and interviews, which allows the researcher to hear the voice of the participants (Gioia et al., 2013; Irwin, 2013; Slight et al., 2014). For this reason, the qualitative method was the best for my study.

The qualitative method was the most appropriate for my study because of the differences in the two research models (see Barnham, 2012). Comprehending the viewpoints of participants and purposeful methods of sampling results in collecting rich data, allowing for more flexibility in qualitative studies (Trainor & Graue, 2014). Similarly, Renz, Conrad, and Watts (2013) noted the qualitative study is a suitable model to design, learn and acquire from participants how to comprehend the process. The researcher can understand the perspectives of the participant and collect data through dialog (Wisdom, Cavaleri, Onwuegbuzie, & Green, 2012). Trainor and Graue stated a researcher conducting a qualitative study employs constructivism and focuses on the lived experiences of the participants, embracing creativity, flexibility, and intuition. Conversely, quantitative methods are a type of study in which researchers collect data using structured questionnaires, scales, and measurements, generating numerical data using a hypothesis to drive the approach (Grove et al., 2103; Walter, Dunsmuir, & Westbrook, 2015). The quantitative method is used to describe and examine relationships, which does not fit the purpose of this study (Gioia et al., 2013; Irwin, 2013).

According to Neale, Miller, and West (2014), quantitative studies have several disadvantages. Researchers that conduct quantitative studies use numbers that tend to detract from an in-depth analysis, as opposed to semistructured interviews with the qualitative method (Grove et al., 2013; Hoare & Hoe, 2013). When researchers use numbers, both reader and author may make inappropriate generalizations of the findings that may not necessarily represent the real meaning (Neale et al., 2014).

My goal was not to test a hypothesis. My objective is to understand how humans perceive the EMR, and a quantitative study would not be the best fit. Gioia et al. (2013) explained that to capture and explore phenomena requires concepts that are relevant to human organizational experience and people that are living that experience. The qualitative methodology gives a voice to the participants in data gathering and analysis, which represents their voice prominently in the reporting of research (Gioia et al., 2013).

A mixed method approach uses an amalgamation of both qualitative and quantitative research methods (Huff, Chumbler, Cherry, Hill, & Veguilla, 2015). With any method, there are concerns in a mixed-methods approach. A weakness of a mixed-methods approach is that it is more costly and tedious than using a single method, which translates into more resources to do both methods well. Therefore, researchers need to maintain a balance so as not to focus on one research method and deserting the other method, which causes a limitation (Atkins, Launiala, Kagaha, & Smith, 2012; Grove et al., 2013). The mixed method is time-consuming, and the resources may limit what the researcher can accomplish. In addition, using mixed methods would result in a combination of quantitative or qualitative study (Wisdom et al., 2012). In a qualitative study, the researcher can examine interviewees in further detail or conduct a deeper exploration of the topic (Huff et al., 2015).

For purposes of my study, the quantitative method was not appropriate because my focus was not on using a scale, and measurements of a hypothesis. The mixed method was not appropriate because my goal is to use one method. Hence, neither the quantitative or mixed-method approach was appropriate, since I can use the qualitative

method to explore strategies that health care business professionals use to increase productivity and revenue. For these reasons, a qualitative method was the best match for my doctoral study.

Research Design

A single-case study is a preferred design for exploring what strategies health care business professional use to increase productivity and revenue. The unique strength of case studies is that it involves evidence including documents, artifacts, interviews, and observations that a researcher cannot manipulate (Yin, 2014). When researchers need to find in-depth understanding of the phenomenon, the case study is most useful when conducted in its natural situation. Researchers use the case study method to document the precise nature of a phenomenon not well understood, especially when there is more to explore beneath the surface (Yin, 2014). The case study is holistic as it captures the conditions of a commonplace situation. The case study gives insight when there are gaps in the literature, and the studies answer *how*, *what*, and *why* questions (Gioia et al., 2013; Hynes, 2012; Yin, 2014).

The case study is highly flexible, and it highlights individual differences. Moll (2012) explained that the case study is an abundant source of data because the issues are significant in the context within which they occur. A unique benefit of a case study is the opportunity to interact in day-to-day practice with participants (Yin, 2014). Moll argued immersing oneself in a study gives the researcher an opportunity to understand the situation and the people. Moll explained a qualitative study was the only way in which researchers can understand the viewpoints and behaviors of the social actors.

Unlike survey or experimental research that typically yields a general, broad perspective on the issues, the qualitative approach permits the researcher to keep the important attributes in exploring complex social phenomena (Yin, 2014). For this reason, I chose this method to explore what strategies business professionals use to increase productivity and revenue. Other researchers used the case study approach to explore strategies business professionals use to increase productivity and revenue (Kierkegaard, 2013; Marcos, Maldonado, Martínez-Salvador, Boscá, & Robles, 2013; Wilson, 2012).

One such design is the ethnographic design, which according to Roberts and Bailey (2013) described different attributes of a culture. For example, Roberts and Bailey conducted a study to explore how incentives and barriers affected mentally ill patients collecting data between September 2008 and April 2009, and observation data collected between September and December 2009. Roberts and Bailey provided a platform to understand the values, culture, and beliefs of service users which may be used to update further developments.

For a researcher to gain cultural immersion they need to have time to integrate with the culture and still sustain and outside role (Grove et al., 2013; Wilson, 2012). Grove et al. stated extensive field work is necessary to collect data in an ethnographic study. An ethnography design was not the best for my study since my study relates to the implementation of the EMR and what strategies health care business professionals use to increase productivity and revenue. Since the focus of the ethnographic study is not to

understand the phenomenon from the views of others and to live within a culture, ethnography was not the most appropriate.

The main reason for a phenomenological study is to describe human experience not bounded by time or location (Wisdom et al., 2012). Moustakas (1994) advocated when researchers conduct phenomenological studies, they usually employ a vast, continued engagement to develop sequence and meaning. Ginsberg and Sinacore (2013) stated the phenomenological method gives researchers a chance to describe participants' position on an issue, and to collect valuable data on a given situation. The phenomenological study was not appropriate since my goal was to understand the experiences of what strategies health care business professionals use to increase productivity and revenue.

Researchers use the grounded theory method to develop or extend a theory about a process from data collected. For example, Moss, Gibson, and Dollarhide (2014) conducted a study to examine the experiences of counselors that practice at different points in their career. A grounded theory approach was used to explain the professional status as viewed by participants (Moss et al., 2014). Using the comparative method found in the grounded theory, the authors maximized the connections and distinctions between counselors that work in schools and those that work in the community (Moss et al., 2014). Grove et al. (2013) stated when researchers use the grounded theory, the strategies they utilize are specific, such as coding or describing a concept. By using these specific strategies, researchers can develop a theory (Zarif, 2012). The grounded theory was not appropriate for my study because my goal was not to develop a theory based on data.

The narrative analysis tells a story. Grove et al. (2013) stated that in narrative research, the focus is the way that people live and the accounts they reveal regarding their lives and livelihood. Likewise, Dailey and Browning (2014) argued narrative analysis refers to the retelling of organizational stories. Narrative accounts primarily involve stories that have a life time of experiences (Dailey & Browning, 2014). The narrative analysis was not appropriate for my study. The focus of my research was to explore what strategies health care business professionals use to increase productivity and revenue, rather than on storytelling. For that reason, the narrative was not appropriate for my study.

To ensure data saturation, I continued interviewing participants until there was no new information or themes, and information began to repeat. Guest, Bunce, and Johnson, (2006) noted that when no new information that gives added value or new themes develop then the researcher has achieved saturation. In contrast, Rowley (2012) stated data saturation depends on the type of research questions, strategy, and the quantity of people that can influence the study with new knowledge. To sustain effectiveness, 6-8 people for an hour is satisfactory to produce viable findings, so that an interviewer does not get inundated with data that is unmanageable (Rowley, 2012). Sandelowski (2007) agreed that the type of information collected and the type of research determines the number of people needed for a study.

I studied, researched, and considered the appropriateness of each qualitative design. The designs included the ethnography, phenomenological, and the narrative. The ethnographic design is about studying a culture and the grounded theory is about

developing or extending a theory, my study was about what strategies health care business professionals use to increase productivity and revenue. The narrative tells a story and the phenomenological study is a vast, continued engagement to develop sequence and meaning. The case study was the most appropriate for this study because the focus is to explore what strategies health care business professionals use to increase productivity and revenue.

Population and Sampling

The population of my study was experienced health care business professionals who use EMR strategies in Orange County New York. Yin (2014) explained the exploratory single-case study is a suitable design if participants are representative of the same background and experience. The criteria that I used to select participants was integral to purposeful sampling. Yin defined the purposeful sampling method as judgmental, convenient, or selective sampling. Walker (2012) purported purposeful sampling gives researchers an opportunity to purposefully select a sample from a group who have the knowledge and experience about the subject in question. Clearly et al. (2014) stated the selection of participants should have a connection between purpose and inquiry. Palinkas et al. (2015) argued researchers that conduct qualitative research purposefully uses a segment of the group or population to gather rich and fresh information. For this study, I wanted to know what EMR strategies health care business professionals use to increase productivity and revenue. The purposeful sampling was consistent with study goals and conveniently based on the above criteria, which is harmonious with a qualitative study (Yin, 2014).

For the study, I ensured there were seven individuals taking part in the interviews. Guest et al. (2006) explained for sample heterogeneity and to meet any research objectives, the recommendation was six to eight participants, which justifies the sample size for this study. In contrast, Sandelowski (2007) stated determining sample size is left up to the researcher and the type of information they collect. Guest et al. and Marshall, Cardon, Poddar, and Fontenot (2013) had similar findings, that saturation is fundamental to exceptional qualitative work, but that there were no standard operating procedures to estimate sample size to reach saturation. Walker (2012) noted saturation influences the sample size. To ensure saturation the researchers interview other participants until no new information is gleaned or nothing new added (Marshall et al., 2013).

The criteria I used to select participants were they must be knowledgeable, experienced, and able to answer the research question within the area of concentration with rich data. Rowley (2012) explained participants should have the knowledge and the potential to provide information on the research question. Thompson, Petty, and Scholes (2014) stated knowledge, experience, accessibility, cooperation, and the ability to communicate experiences and opinions is essential to case study interviews. Bardus, Blake, Lloyd, and Suzanne Suggs (2014) agreed past experience and strategies previously used for ease of use was important. Brooks and Normore (2015) stated the experience, the information from the literature review, and best practices employed would bring knowledge and new strategies. The participants selected would represent different areas of the health care business profession that use various strategies to increase productivity

and revenue. The health care business professionals have experience in using the EMR and provided rich data for the case study.

The interview setting included an office at the workplace that was a comfortable and non-threatening environment (Yin, 2014). Yin stated to ensure confidentiality a private location is important, and it helps to minimize interruptions. Similarly, Brewster (2014) reported the interviewer needs to find a quiet place, like a library, or office that has a comfortable format, to conduct and document an interview. Likewise, Malagon-Maldonado (2014) stated to conduct a qualitative interview it is best to conduct the interview in a designated place rather than at a natural field setting. Therefore, I conducted the interview where health care business professionals would feel comfortable and would feel free to respond to the questions asked by the researcher either at a library or at an office.

Ethical Research

Three main principles guide researchers in maintaining ethical research involving human participants. These core principles are respect for persons, concern for welfare, and justice (Matheson, Forrester, Brazil, Doherty, & Affleck, 2012). Researchers have a duty to respect participants' autonomy and protect the rights of participants during and after the research (Bishop, 2012; Covell, Sidani, & Ritchie, 2012). Securing the approval of Walden Institutional Review Board (IRB) was integral to conducting ethical research and ensuring human subjects protection. Such approval (Walden IRB approval number 04-26-16-0475479) was secured from University prior to conducting any interviews for the study.

A crucial aspect of a research study is the informed consent by participants for their voluntary participation. Bengry-Howell and Griffin (2012) discussed three areas of concern for valid consent that support ongoing ethical research: (a) the researcher should provide potential participants with all pertinent information to make an informed decision, (b) participants should participate willingly, and (c) the researcher should ensure that participants are competent to make such a decision. Bengry-Howell and Griffin explained obtaining consent based on understanding the consequences serves as the cornerstone of the research practice.

I informed all participants in person about important aspects of the study. I disclosed my involvement in the study, explained their commitment to the study, protection of their identity, and minimal risks associated with the study. Participants signed the consent form to demonstrate consent and at the same time indicated their willingness to cooperate and join the study. Marshall and Rossman (2016) explained the importance for participants to understand their commitment and the minimal risks involved when participating in a study. Bishop (2012) stated informed consent includes sharing data, protecting privacy, maintaining documentation, managing access, and informing participants about minimal risks. Similarly, van Eijk, Helberger, Kool, van der Plas, and van der Sloot (2012) explained consent should be obtained from each participant individually, in an informed approach, free from coercion, and in an individual manner. Munhall (1988) noted respect for humans is the right to have informed consent from the participants considered as an exchange of trust requiring continuous negotiation. Participants received all relevant information to include their

role, my role, and an explanation of privacy and confidentiality, to make an informed decision whether to participate in the study.

The procedure for participants to withdraw from the study was that they could request to withdraw at any time by stating such. Munhall (1988) stated participants should have the right to withdraw at any time without penalty. Participants can withdraw verbally or in writing if they so choose. I explained the right to withdraw during the presentation of the consent form. I reminded participants they can decline to answer any questions and if they choose to withdraw they can do so at any time without any obligation or repercussions. Likewise, Tyldum (2012) explained respondents should have the opportunity to withdraw from the interview at any time. Similarly, Marshall and Rossman (2016) noted participants should have the right to withdraw or participate as they wish.

I did not give any incentives for participating to avoid increasing pressure on participants. Tyldum (2012) explained when participants do not receive any benefits from participating in research it compares to volunteering and participating in social organizations. People often participate for the greater good and to have their views heard or brought forward on issues they consider necessary. Matheson et al. (2012) stated researchers face the question of whether they should give incentives or offer anything, whether monetary or otherwise, for participation in research. Likewise, Tyldum found there may be participants that are low income and could bring value to the study, but only with an incentive. However, Marshall and Rossman (2016) argued that, regardless of

income, monetary incentives given to participants may result in a skewed study if the participants are needy.

To assure participants that their ethical protection is adequate, I discussed their privacy and confidentiality during and after the study. Heeney (2012) also explained that along with informed consent, confidentiality was an accepted way to look after the interests of research participants. Likewise, Wiles, Coffey, Robinson, and Heath (2012) purported the researcher has an obligation to protect respondents when collecting data, while upholding participants' privacy. Bishop (2012), and Nogami and Yoshida (2013) stated confidentiality also means the removal of personal, sensitive, or identifiable information by using pseudonyms to replace names or other terms. I did not use participants' personal names for my research or the name of the organization. For participants, I used *Participant 1*, P*articipant 2*, etc. to ensure their privacy and confidentiality. To discuss anything about the organization I used the letters *ABC* to ensure privacy and confidentiality. Heeney noted confidentiality and privacy are necessary to preserve access and control for research studies while confidentiality allows a person to make a choice about the situations under which a person might disclose the data.

Although data collection forms did not contain the respondent's names, consent forms included signatures, and so must be kept private. To maintain confidentiality, I stored signed informed consent forms and interviews in a locked file cabinet that is fire proof and stored in my home. The responsibility to maintain confidentiality does not end

with the completion of the study. Five years after completion of the study, I will destroy all flash drives, tapes, consent forms, and interviews.

Data Collection Instruments

I was the primary data collection instrument for conduction of the semistructured interviews. Each semistructured interview consisted of 10 open-ended questions asked of participants about their experiences and strategies used to implement the EMR (see Appendix A). Interview questions 1, 2, 3, and 5 relate to the technology acceptance model. The data collection instruments include semistructured interviews, organizational policies and records and tape recordings.

The semistructured interviews occurred face-to-face and lasted a period of approximately 45 to 75 minutes. Matusitz and Lord (2013) stated that face-to-face interviewing was a methodological approach using an interview protocol and an in-depth analysis of a particular setting, allowing for probing and extracting additional information if the participant was unclear when answering questions. The interview protocol consisted of an initial script which included my role in the study, getting informed consent, collecting basic demographic information from participants, asking questions, and giving participants my contact and email information, and ending with a script thanking participants. Gioia et al. (2013) stated an interview protocol covers a short script, research questions, prompts and final contact information for participants. Likewise, Gill, Stewart, Treasure, and Chadwick (2008) stated the semistructured interview comprises questions and queries that help the interviewer to go in a different direction to follow a response or idea for more information using prompts or probing

questions. Beail and Williams (2014) found semistructured interviews conducted face-to-face are useful in eliciting views and experiences from participants, which often results in rich data that adds value, validity and credibility to the study.

Researchers recognize semistructured interviews as a universal method to gather data for research (Gill et al., 2008). Lowes et al. (2015) found qualitative case study researchers collect data through semistructured interviews. To understand occurrences, beliefs, values, and rationales of participants. Likewise, Siddiqui et al. (2014) stated semistructured interviews facilitate an in-depth understanding of an area or issue. Researchers use guidelines in semistructured interviews, as it helps participants with some criteria, direction, or talking points that many find helpful (Gill et al., 2008). Through semistructured interviews the researcher may gain trust with the participants, thereby forming a relationship and gaining the most value on responses from participants.

An interview has advantages and disadvantages. A researcher can correct any mistakes easily by having the participant clarify their answers. Both researcher and participant may develop respect, which may increase mutual understanding. Through an interview, a researcher can gain fresh information and uncover the participant's point of view on an issue. By means of an interview, a researcher can gain new knowledge to add value to a research question and explore the root cause of a business problem. Manthorpe and Samsi (2013) stated by means of an interview, a researcher can enable rapport, explore for further explanation and ascertain points of significance. Marshall and Rossman (2016) noted that at the interview a researcher can clarify information. Likewise, Dolezal et al. (2012) explained that a researcher can seek clarity on material

that was not properly understood. Some disadvantages to an interview are that the researcher may not complete the process due to lack of attention, communication, or understanding by both parties (King et al., 2013). The participant may not reveal the true responses to the question. A participant may have their own bias or neglect to give vital information that could enhance the problem being studied (Marshall & Rossman, 2016).

Organizational policies and records supplemented data collected from interviewing (Marshall & Rossman, 2016). Some examples of these records include meeting minutes, proposals, emails, or company records from the hospital for triangulation purposes. My goal was to read and understand any standard operating procedures and to map out the workflow processes if these existed. These documents that I reviewed were an electronic and hard copy. By reviewing these documents I saw whether there were any differences between the purpose of the EMR program and the implementation of the EMR program. After evaluating the organizational policies and documents I formulated probing questions and other basic responses that relate to the interview questions. After I received the organizational policies, documents, and records I compiled the documents to make sure the data was accurate and relevant to my research question. Yin (2014), and Marshall and Rossman (2016) recommended using other sources to triangulate participants' semistructured interviews for greater validity.

The advantages of an organizational policy and records are that the data can be a source of information (Marshall & Rossman, 2016). A researcher is able to check how the implementation of the EMR occurred and the process used by management. The information is not expensive to obtain and is useful as a source of background data. I

organized the information and interpreted the data. The information could be biased because of whom was on the committee at the time of implementation. Finally, the researcher may take time in collecting, reviewing and analyzing the organizational policies and records (Yin, 2014).

A researcher may use a recorder to record the dialogue for accuracy between the participant and the researcher (Springham & Brooker, 2013). I recorded the interviews so I could play them back later. By recording the interview it saved the responses and the comments that I made during the interview. I saved the information for use as reference later. Another advantage is that the researcher can rewind and listen to the message many times to gain greater clarity and immersion in the data (Kwasnicka, Dombrowski, White, & Sniehotta, 2015). The interviews I recorded were utilized for transcribing the answers (Manthorpe & Samsi, 2013). In addition, I assessed the tone of voice, how quickly the participant spoke and their inflection.

The disadvantage of using a recorder in an interview is that there has to be a backup plan in case the equipment breaks down (Malagon-Maldonado, 2014; Grove et al., 2013). In addition, by having a tape recorder the participants may become nervous, which may affect their interviews (Gossman & Miller, 2012). Finally, with the recorder the researcher can only capture the voice of the participant while missing the non-verbal cues that may also complement the interaction between participant and researcher.

To enhance the reliability and validity of the data collection instrument, I used member checking. To use member checking I conducted the semistructured interview, interpreted what the participant shared, and shared the interpretation with the participants

for validation. I then wrote a two-page summary of the data collected and emailed it to participants for their review and feedback. Andrasik, Chandler, Powell, Humes, and Wakefield (2014) and Coenen et al. (2012) explained through member checking when participants were emailed an analysis of data collected for review and feedback, participants were able to see how data was analyzed. Likewise, Harper and Cole (2012) found that through member checking, participants had the chance to evaluate the data collected during the interview and give feedback. Siddiqui et al. (2014) argued that through the process of member checking and verification of the findings, participants got an opportunity to correct errors and any misleading interpretations. This gave the participants a chance to augment supplementary data and modify incorrectly recorded data. Chikweche and Fletcher (2012) stated a critical success factor for any researcher is the validity and credibility associated with the collection and reporting of data. Therefore, I used member checking to augment the validity and credibility of my study.

Data Collection Technique

Qualitative researchers collect data through interviews that are audio-recorded and transcribed (Loiselle, Profetto-McGrath, Polit, & Beck, 2012; Yin 2014). I conducted semistructured interviews following an interview protocol (see Appendix A). Before the interview, I checked the recorder and made sure it was in working order, and there were sufficient batteries. I made sure there was minimal background noise. I had a back-up tape recorder. Marshall and Rossman (2016) and Grove et al. (2013) stated noise may disrupt the interview and the data transcribed may not be as accurate since the participant did not hear the question correctly. Likewise, Malagon-Maldonado (2014) found that

when recording information, sometimes the participant's responses are difficult to interpret due to noise or language. Van den Hooff and Goossensen (2015) found when interviews are recorded the researcher can use the information for recall purposes, understand the data, and report the data more accurately through the process of transcription. Therefore, I transcribed the interviews verbatim for purposes of recall, playback, and transcription, which strengthened the validity, rigor, and credibility of the study.

I scheduled the semistructured interviews giving participants a date, time and the location that both parties could agree upon. Witty et al., (2014) and Al-Yateem (2012) explained the date, time, and a location was important to meet the participants needs. Becher and Wieling (2015) stated interviews should be scheduled at the convenience of the participant as much as possible at locations such as offices desired by the participants. I held interviews in private offices desired by the participants. Brewster (2014) found public places such as offices are suitable areas to conduct interviews. The amount of time is an important factor for the participant and myself so I set aside between 45 and 75 minutes for the semistructured interviews. At the end of each semistructured interview, I thanked the participants. I arrived on time, use proper etiquette, and maintained respectful interaction during the semistructured interview.

According to Chapman and Clucas (2014), proper etiquette develops the relationship between the interviewer and the participants. I introduced myself, using a script that I had written and re-confirmed the purpose of the interview. Heeney (2012) stated reemphasizing the confidentiality and the importance of the accuracy of data is

important. Next, I informed the participants that I would ask them a series of questions. After each question, I waited for the response. I told participants that if the response was not clear, I would repeat the question and ask them to explain further or with more clarity.

I started the interview asking basic demographic questions, (e.g., age, professional background, and educational level) as it pertains to where they work. If participants decline to answer I reminded them that they did not have to answer the question. Patterson, McDaid, and Hilton (2015) stated the onus to withdraw was on participants. Gibson, Benson, and Brand (2012) explained that researchers should allow minimum harm to come to participants and at minimal risk. The principle of voluntariness and withdrawing from an interview were ethical considerations important to adhere to in an interview (van den Hooff & Goossensen, 2015). While asking questions, I followed the order of questions and ask questions in an unbiased manner (e.g., Yin, 2014). Because participants may need confirmation that I am listening, occasionally I nodded my head or encouraged them to give more detail on an answer that may add significant value to the study (Grove et al., 2013). I kept track by informing the participants when it was time to move to another question to ensure a successful completion of the interview.

During the interview, I stopped and checked the tape recorder to make sure it was working properly. Irvine, Drew, and Sainsbury (2013) explained the approach to analysis centers on how well the data is taped and transcribed. Throughout the interview, I spoke slowly. A key factor in interviews is to speak slowly, and observe nonverbal communication (Castelli, Carraro, Pavan, Murelli, & Carraro, 2012).

The questions were open-ended, which was meant to draw from participants' ideas, thoughts, and feelings (Malagon-Maldonado, 2014). I took notes on non-verbal expressions and maintained neutral expressions and emotions so as not to influence the responses from participants. I asked each informant if they had any further details they would like to share or have questions about the research to conclude the interview. At the end of the interview, I thanked participants and gave them my contact information to email or call if they had any questions. I reminded them I would send a summary of their answers by email for member checking and a final transcription of the interview for them to validate.

An advantage of the interview is that face-to-face communication enhances the development of rapport and builds upon the relationship, as there is a natural encounter (Irvine et al., 2013; Witty et al., 2014). The element of face-to-face interaction allows for generating rich qualitative data (Al-Yateem, 2012). Malagon-Maldonado (2014) stated that during the interview the researcher can begin to immerse themselves, analyze, and interpret the dense information. Another advantage is there is a visual encounter that allows for less data distortion. The researcher can see the participant so that the nonverbal cues, body language, and facial expressions are apparent (Irvine et al., 2013). Hence, the researcher can clarify questions especially if visual signs show the participant does not understand.

Irvine et al. (2013) acknowledged that having the ability to meet and see the participant is an advantage that may make it more accessible for interaction, and to clear up any information not readily understood. Some of these clues are nonverbal cues and

small utterances that may shape and guide the interview between the researcher and the participant. Irvine et al. advised participants, although bored, might tolerate being questioned, especially if the researcher uses a conversational tone. An important factor is the ability to probe further into in-depth questioning and the opportunity for observation, listening, building rapport, and enhancing the relationship through collaboration (Malagon-Maldonado, 2014; Witty et al., 2014). I focused on open-ended questions and had a chance to mitigate bias.

There are also some disadvantages to interviews. According to Malagon-Maldonado (2014), the interview provides unintended information filtered through participants' interpretations. The interviewer may have little time to consider answers and could become irritated. The participant may not want to share in a face-to-face semistructured interview (Mason & Ide, 2014). Being present may also perpetuate bias in how the participants respond (Malagon-Maldonado, 2014). The researcher may need and not have a visual aid, thus wasting the time of both parties. Another disadvantage of interviews is that it requires transcribing and the data may be difficult to interpret due to the equipment (Al-Yateem, 2012; Witty et al., 2014).

To enhance the reliability and validity of the data collection instrument, I used member checking. To use member checking, I conducted the semistructured interview, interpreted what the participant shared, and shared the interpretation with the participants for validation. To conduct member checking, participants received an analysis of the data collected for them to review their responses and give feedback. I emailed the analysis to each participant for validation of the responses. Andrasik et al. (2014) and Coenen et al.

(2012) explained that, through member checking, when participants were e-mailed an analysis of the data collected for their review participants had an opportunity to see if data was captured correctly. Likewise, Harper and Cole (2012) found that through member checking, participants had the chance to evaluate my analysis from their responses for accuracy and correct any errors. Becher and Wieling (2015), and Siddiqui et al. (2014) argued that, through the process of member checking and verification of the findings, participants get an opportunity to correct errors and any misleading interpretations. This gives the participant a chance to augment supplementary data and modify incorrectly recorded data. Therefore, I used member checking to augment the validity and credibility of my study.

Similarly, Chikweche and Fletcher (2012) stated a critical success factor for any researcher is the validity and credibility associated with the collection and reporting of data. Therefore, I emailed the transcribed data to participants to validate and provide feedback to enhance the validity and credibility of the study. The participants received transcribed data via email so they could make changes they saw as appropriate (Loiselle et al., 2012). I kept the original and made notes to show how the participant changed the response. I provided a one or two page summary of findings to participants for feedback on any discrepancies or incorrect information.

Data Organization Technique

To keep track of data I maintained a sign-in log to track when and where I took the folders out of the locked file cabinet. To protect confidentiality, I labeled each folder with a pseudonym: the letter *P* and the number (e.g.., P1, P2, P3, P4, P5, P6, and P7) to

represent participants. Each interview transcribed has gone into a folder and serves as a written record for each study participant. For this study, I used pseudonyms to mask the participants' identities.

I maintained a research log with the list of participants names, dates, times, and location of interviews. In the research log, I wrote any emerging themes that kept recurring as participants got interviewed. I made notes of any nonverbal communication observed and noted in the research log to document the process. Wilson (2014) stated that researchers can use the research log to document any empathic connections they may feel for participants. McNeil, Small, Lampkin, Shannon, and Kerr (2014) mentioned researchers may use the research log to record any conversations they may have had with the participants. McCandles and Eatough (2012) found the research log may be used to record any feelings a researcher may have about the study or to track a change in thinking as a form of bracketing. Likewise, Fluk (2015) stated the research log can be used to document the process, write key words, or to write any thoughts that may create bias and may be used as a reflexive journal. The research log may be written or electronic, and may add value due to the rich data are written by the researcher, giving meaning to the data obtained from participants (Moffat, Jenkins, & Johnson, 2013).

I maintained a reflexive journal, especially during interviewing and data collection. I wrote down any biases, assumptions, and preconceptions. Darawsheh (2014) found reflexivity in research improves transparency and significantly adds to the rigor of the qualitative research. Likewise, Martin and Bristowe (2015) found that when a researcher reflects and writes down their own experience related to the study, rigor is

added, which affects the analysis and findings by the researcher. Liberati et al. (2015) argued a researcher can write down experiences, which may trigger new discovery of knowledge, values, and enrich the study. Similarly, Burns, Fenwick, Schmied, and Sheehan (2012) argued reflexivity allows a researcher to consider one's biases that may influence the study during data collection. Therefore, I maintained a research log and wrote my reflections in the log.

Bishop (2012) stated cataloging, modifying, and accessing data is paramount from an ethical point of view. Whenever I retrieve any of these folders from the locked file cabinet I sign them out on the log. The cataloging and logbook of items provide for ethical standards and increased rigor of the study (Bishop, 2012).

I stored data on a password-protected flash drive in a locked file cabinet for 5 years after completion of the study. After 5 years, I will shred and electronically erase all data. I locked all materials in a cabinet and have a logbook in which I wrote what I retrieved and what I returned to the locked cabinet.

Data Analysis

The purpose of my study is to explore what EMR strategies health care professionals use to increase productivity and revenue. I used a methodological triangulation approach to map and explain the richness of data by studying the phenomenon from more than one data collection source (Malagon-Maldonado, 2014; Marshall & Rossman, 2016; Yin, 2014). These data sources include interviews, interview notes, member checking, records, organizational documents from the hospital, and a reflective journal.

The planned methodological process includes interviewing the participants and tape-recording the interviews while occasionally making notes of any observations (Becher & Wieling, 2015; Malagon-Maldonado, 2014; Rowley, 2012). After summarizing the interview, I emailed the summary of the interview for member checking to receive feedback from participants. Next, I cross-checked the transcriptions and documents, and compared them against the reflective journal. The cross verifications gave more insight into the research question, pointed out any shortfalls, and helped to draw conclusions, providing data that complemented each other, thereby increasing the credibility and validity of the process. I documented all steps in the research log.

Methodological triangulation from interviews, notes, meeting minutes and organizational documents may increase rigor, and produce innovation in the conceptual framework (Zakari, Hamadi, & Salem, 2014). Walsh (2013) explained that gaining the perspectives from different sources on the same issues creates depth and richness to a researcher's findings. Stavropoulou and Kelesi (2012) argued utilizing and cross-referencing different methods strengthen the design, which allows for deeper understanding of the problem. Similarly, Zakari et al. (2014) stated a researcher can confirm the truth by comparing results using methodological triangulation. Likewise, Bekhet and Zauszniewski (2012) found methodological triangulation involves using more than one type of method to study a phenomenon, increasing validity and completeness of a study. Further, Kaczynski, Salmona, and Smith (2014) explained triangulation of data serves as a means to test the validity of the findings by exploring a deeper understanding and drawing conclusions from more than one vantage point. Therefore, I used interviews,

notes, records, member checking, organizational documents from the hospital, and a reflective journal for methodological triangulation.

Riala and Nummelin (2015) stated data analysis and data collection go together hand in hand when conducting research. Strauss and Corbin (1998) contended interpretation of data is imperative as it is always occurring in the minds of the readers. One of the primary measures addressed was the familiarity of information. Familiarity means rereading the notes and transcripts, recalling observations and experiences, and listening to the audio recordings (Jafari, Dunnett, Hamilton, & Downey, 2013). By taking all these factors into consideration and employing them, a researcher can immerse him or herself into the data. When a researcher becomes immersed in the data, participants are encouraged to reveal narratives of self and become willing partners and equals in a collective endeavor of knowledge production (Jafari et al., 2013). Using this approach allowed me to understand the participants' everyday realities and helped to identify what others failed to discover, adding rigor and validity to the study (e.g., Jafari et al, 2013).

I imported textual transcripts into NVivo. According to Bird, Campbell-Hall, and Kakuma (2013), NVivo software is used to manage and share data. Yin (2014) explained the software has tools for coding and categorizing large amounts of data. NVivo is suitable to identify themes and data is kept in a single location. The conceptual framework is the link between the literature, methodology, and the outcomes of the study (Borrego, Foster, & Froyd, 2014). To analyze data I used Yin's method of compiling, disassembling, reassembling interpreting and concluding the data.

Compiling the data means collating and getting together all the data I gathered throughout the study during the data analysis. Data analysis provided the framework to explore what strategies health care business professionals use to increase productivity and revenue. I organized the data to bring structure and order and translate the words and actions into meanings that the readers would understand (Malagon-Maldonado, 2014; Styhre, 2014; Yin, 2014).

Disassembling the data means coding the data (Yin, 2014). Coding the data means tagging chunks of data into categories and then grouping the data (Wilson, 2012). In this stage of the data analysis, categories and themes surface (Thomas, 2015). This includes coding, discovering themes, and other descriptions to explore the main research question (Yin, 2014). Harrison and Rouse (2014) explained categories, and themes, develop through open coding. These categories reflect the strategies health care business professionals use to increase productivity and revenue. If new data are found and the data do not fit in one of the categories, I used other categories to represent such data.

The next step is reassembling the data. This includes introducing emerging themes and then making sense of the data through interpretation (Yin, 2014). Strauss and Corbin (1998) stated researchers can compare the coded segments and contrast them to one another to reveal similarities and differences, and create emerging themes that keep occurring. During this process, I labeled, organized, and defined data using themes in direct correlation with the literature review (Turner, Kim, & Andersen, 2013).

Interpreting the data is another step in which the researcher gives meaning to the data (Yin, 2014). The interpretation was based on how the researcher understands and

defines the data, for example making notes to give a richer meaning to the study. Hoflund (2013) stated after each interview and transcription, a researcher can begin to organize and interpret the data. Likewise, Thomas (2015) found at this stage of interpreting, the researcher can start to add value and meaning based on how they interpret and understand the data. Therefore, after each interview, I made notes and recorded any impressions and comments including the interpretation of data.

The final step is concluding the data, which means revealing the findings and outcomes of the study and comparing to previously conducted studies on what strategies health care business professionals use to increase productivity and revenue (Yin, 2014). These findings emerged from a larger set of data with an established set of ideas (Buchanan, 2013; Thomas, 2015). After reviewing the findings, I determined the effects on what strategies health care business professionals use to increase productivity and revenue.

The conceptual framework of this single-case qualitative study consists of a combination of the literature review, the methodological triangulation, and the findings of the study (Borrego et al., 2014). I analyzed the data in view of the technology acceptance model to help me understand and interpret the meaning of the data. Davis (1989) explained the TAM is used to explore how users accept information systems that influence behavior, attitude, and strategies health care business professionals use to increase productivity and revenue.

For purposes of triangulation, I used member checking, notes, and other documentation from the organization to verify and add validity and credibility to the

study. After I gathered the data I looked for emerging themes found in the data and compared this data to previous findings and other studies. To validate findings, Bekhet and Zauszniewski (2012) found triangulation confirms the findings of a study, which increases the validity and credibility of the research.

Reliability and Validity

The reliability and validity of qualitative content inquiry are often exhibited by using terms such as dependability, confirmability, transferability, and trustworthiness (Elo et al., 2014; Sinkovics & Alfoldi, 2012). To ensure the reliability of the data, McNulty, Zattoni, and Douglas (2013) identified the standards to assess qualitative research as contrasted to quantitative studies. Henriksen, Polonyi, Bornsheuer-Boswell, Greger, and Watts (2015) described trustworthiness as the main requirement of all qualitative research analysis commencing with the data collection to the conclusion drawn from the results. There are various strategies a researcher may use to accomplish reliability and validity.

Reliability

Reliability is the criteria whereby an independent researcher can repeat a study and get similar or the same findings, ensuring dependability (Cope, 2014; Singh, 2015). A measure of reliability is whether the process is consistent, stable, and the methods are the same (Grossoehme, 2014; Houghton, Casey, Shaw, & Murphy, 2013). One method a researcher can use to ensure reliability is to maintain a research log or reflexivity journal (Darawsheh, 2014; Fluk 2015). To ensure reliability I documented the research process in the research log. I used a reflexivity journal to document any biases. Fluk (2015) stated

the research log or reflexive journal may be used to document the process, writing key words or to write any thoughts that may create bias.

Understanding the roles of the researcher is important. One role of the qualitative researcher is to describe relevant aspects of self. These include biases and assumptions, expectations, subjectivities, and experiences when conducting research (Cox, 2012). I documented in the research log the different stages of data collection, analysis, interpretation, and findings. Understanding the roles of the researcher in the study, and the dynamics between the researcher and participants strengthens reliability (Fluk, 2015; Thomas, 2015).

Validity

In research, validity becomes important in accordance with the trustworthiness of the researcher (Marshall & Rossman, 2016). In qualitative research, credibility defines the validity of research (Bell, 2013; Cope, 2014). Validity refers to how accurate findings and outcomes are analyzed and conveyed (Marshall & Rossman, 2016). Strauss and Corbin (1998) stated that to achieve validity, a researcher should review data and the information acquired from participants for similarities and differences among their responses. This gives validity to a study and creates further analysis to determine saturation (Galvin, 2014; Walker, 2012).

Since the single qualitative case-study researcher can use methodological triangulation as a method to collect data, research studies may be validated because of the use of several sources (Matusitz & Lord, 2013; Walsh, 2013; Yin, 2014). Therefore, I

used several sources to validate the case study, for example, member checking, interviews, notes, and made comparisons to maintain a link between the data.

I used the following strategies to maintain validity. These include member checking, by emailing an analysis of the interview and asking participants to give feedback to correct inconsistencies (Andrasik et al., 2014; Coenen et al., 2012). Loiselle et al. (2012) stated that member checking was an important tool to confirm the validity of a study. The proposal received review and analysis by a doctoral committee, to strengthen validation.

Dependability

Dependability refers to the need for the researcher to account for the different ways that the context changes within which research occurs (Lincoln & Guba, 1985). Cope (2014) explained a study is dependable when another researcher replicates the study under similar conditions and uses the same participants. Two methods to ensure dependability are member checking and audit trail (Marshall & Rossman, 2016). Sandelowski (1993) further explained member checking should be completed after transcription rather than after analysis. Through a process of member checking and verification of the findings, I gave the participants an opportunity to correct errors and any misleading interpretations (Siddiqui et al., 2014).

To accomplish member checking I conducted an analysis of the data collected and emailed to each participant to review and provide feedback. Andrasik et al. (2014) and Coenen et al. (2012) explained that, through member checking, when participants were invited to come back or emailed an analysis of their responses, participants had an

opportunity to see if data were captured correctly. This gives the participants a chance to augment supplementary data and modify incorrectly recorded data (Siddiqui et al., 2014).

The second method that I used to ensure dependability is an audit trail. Bowen (2009) explained the audit trail serves as a method to establish or increase credibility that can foster the accuracy or validity of a research study. An audit trail determines the dependability of qualitative research findings. An example of an audit trail is maintaining a journal to record pertinent information and personal reactions at different stages of the research process (Fluk, 2015; Whisenhunt et al., 2014). I used the journal to clarify any ideas or bias that I had to the research thereby increasing the trustworthiness.

Another tool to use for my audit trail is the NVivo software program. I used this software program to verify findings and document rigor for enhanced trustworthiness and systemization to decrease fragmentation and over-simplification of qualitative research. NVivo increases the rigor by providing a comprehensive trail made during the collection, analysis, managing, and sharing of data (Bird et al., 2013; Yin, 2014). Odena (2013) explained the software can keep track of developing ideas, manage data links, and retrieve data to use for verification.

Credibility

Credibility refers to whether the results of research are believable (Cope, 2014). According to Bell (2013), consideration in terms of plausibility and credibility are strategies used to achieve validity. Rather than quantity, quality is more important based on the richness of the information (Bell, 2013). McNulty et al. (2013) stated that concerning rigor and credibility, transparency of the data collection from data sources

and rich analysis of the data is paramount. The process includes being reflexive and explaining the context (Tseng, Wang, & Weng, 2013). According to Darawsheh (2014), reflexivity in research improves transparency and significantly adds to the rigor of the qualitative research. It involves thorough documentation of the research and integrating the literature with the existing literature. Power and Gendron (2015) indicated the researcher in qualitative interviewing is in a constant dialog between the views of the participants and the interpretations made as an analyst. Through a process of member checking and verification of the findings, I gave the participants an opportunity to correct errors and any misleading interpretations (Siddiqui et al., 2014). This gave the participant a chance to augment supplementary data and modify incorrectly recorded data. Becher and Wieling (2015) stated member checking increases trustworthiness and adds credibility to a study.

Instead of maintaining the belief of reliability and validity deployed in quantitative research, the criterion for qualitative studies should be trustworthiness (Power & Gendron, 2015). Trustworthiness includes checking of interpretations during the interviews and using methodological triangulation (Bell, 2013). According to McNulty (2013), to increase validity and rigor for qualitative research triangulation is necessary. Hence, in addition to transcript review and member checking processes described earlier, I triangulated data using interviews, organizational policy, standard operating procedures, procedure documents, and records. The findings and results obtained through triangulation are more likely to increase validity and credibility (Koc &

Boz, 2014). Koc and Boz (2014) also acknowledged triangulation strategy may provide stronger evidence for a better conclusion.

Similarly, Marshall and Rossman (2016) and Özdemir and Adan (2014) explained triangulation entails exploring the field of study from different sources. That means data from different sources corroborate, validate, or substantiate the research problem. Özdemir and Adan explained data, and the sources used for triangulation can strengthen the credibility making it considerably easier to describe and substantiate. According to Leppäkoski and Paavilainen (2012), the qualitative researcher should ask the same questions to address the same problems and gather similar data. Kavoura and Bitsani (2014) stated one source may serve as the main reference to validate the other sources that support the research question. The consistency of using this method can increase reliability. Zakari et al. (2014) noted triangulation adds richness and value, which helps with the identification of themes, verifying interpretations, and explaining the meaning. I read the data more than once, aligned the data into lesser increments, and identified codes that support the case study.

Transferability

The context of the research must have definitive standards, and be adequately described to have consistency in incorporating the research purpose (Koch, Niesz, & McCarthy, 2014). Cope, (2014) and Lincoln and Guba (1985) defined transferability as the degree to which the findings of qualitative study meets the criteria for other situations. Similarly, Bosio and Graffigna (2012) stated transferability signifies the possibility to transfer to other groups. I enriched transferability by doing a thorough job

of describing the research content and the assumptions that were essential to the research. The emphasis must be to create ideas and literature with a thick description so as to promote transferability. A researcher should understand how to deal with the constraints in designing, conducting, and disseminating results in a way that is readily applicable and usable by the research stakeholders (Bosio & Graffigna, 2012).

When there is a poor judgment of transferability, the result is unsuitable and duplication is unachievable. A researcher that shows transferability goes beyond external validity by indicating the appropriateness of their study as applied to a new setting (Burchett, Dobrow, Lavis, & Mayhew, 2013). A goal for researchers is that their research goes further than the initial study. The way researchers understand the factors may influence the transferability and how they understand the issues in terms of collecting and reporting data (Burchett et al., 2013). In the study, I gave a rich description and transformed codes into themes, using interviews and transcription, providing a broader context that can support transferability.

Rapport, Clement, Doel, and Hutchings (2015) added that transferability can play a role in research if the researcher provides sufficient contextual information. Details such as those about sampling and recruitment may boost confidence that a study supports a broader group. I used a sample of health care business professionals in which all personnel have worked in the field using the EMR and had experience (Rapport et al., 2015). Williamson, Nichols, and Lamb (2015) argued sample size and non-random sampling in qualitative research undermines use by other populations. Participants may be reluctant to reveal information that shows negativity (Williamson et al., 2015). In the

same construct, Williamson et al. added findings applied to other populations with similar characteristics could prove essential. Therefore, for my study to meet transferability I ensured that other readers understand the results and share the same experiences when they read the study.

Confirmability

One step that a researcher can use to enhance the validity of the truth of a study is confirmability (Cope, 2014). According to Lincoln and Guba (1985), confirmability applies to the way a researcher maintains neutrality to allow respondents to shape the inquiry. Factors that contribute to the lack of validity includes bias, motivation, and neutrality (Lincoln & Guba, 1985). Erlingsson and Brysiewicz (2013) stated meticulously describing the methodologies of the steps in a study are necessary to ascertain trustworthiness and confirmability. A researcher may have a respondent judge the trustworthiness of the study to confirm the authenticity of the conclusion. Houghton et al. (2013) called this type of authenticity and validity of a study member checking.

After I transcribed all interviews, respondents had an opportunity to check the validity by reading the summary of the transcriptions to ensure the summary represented their responses to the questions. To further ensure confirmability I recorded interviews, transcribed interviews into text, and analyzed text (Erlingsson & Brysiewicz, 2013). I maintained a journal to write down any biases that could affect my interviews or the study. Dupin, Larsson, Dariel, Debout, and Rothan-Tondeur (2015) stated the confirmability of a study is enhanced when a researcher maintains a journal during data collection. A researcher can write down thoughts to reflect on subjectivity. I used the

journal as a means to note spontaneous, immediate data. Hence, writing down and being accountable for my biases, the reader can recognize my subjectivity through the process of reflexivity (Lincoln & Guba 1985).

The primary researcher increases transparency by having an audit trail (Dupin et al., 2015). Similarly, Petty, Thomson, and Stew (2012) agreed the audit trail helps to reflect the focus of the study and the impartiality of the researcher. The methodological steps used can help others follow the path the researcher took to draw interpretations, and conclusions (Petty et al., 2012). Finally, collecting data from different sources helped to triangulate and minimize bias (Lincoln & Guba 1985). I used triangulation by comparing the interviews, records and organizational documents.

Saturation

One important aspect of qualitative research is data saturation. Galvin (2014) defines saturation as the point at which no new relevant information is forthcoming even if someone interviews more people during interviews. Fusch and Ness (2015) explained saturation may be achieved when there is no new information, no new coding, no new themes and the ability to replicate the study. Similarly, O'Reilly and Parker (2013) stated the collection of data continues through interviews until no new data or emergent patterns develop. Walker (2012) defined saturation as the collection of data in a study until redundancy of the data has occurred.

Researchers conducting qualitative studies view data saturation as an indicator of sample adequacy that is becoming accepted and expected. O'Reilly and Parker (2013) explained researchers see saturation as the standard to conduct research through a

diversity of samples, to determine quality and validity. Qualitative research depends on a large extent on sampling that provides depth and maximum opportunity for transferability of findings (Galvin, 2014). Thus a researcher, through sampling in qualitative research, achieves the richness of information.

A goal of the researcher is to produce sound qualitative work that is transferable, and thus an adequate sample size is necessary. A researcher can capture a range of experiences with the sample size that is adequate but not so large as to become repetitious (O'Reilly & Parker, 2013). If saturation is unattainable, the phenomenon is not fully explored, and the findings are invalid. Researchers need to give clarity of what steps they used to attain saturation and what issues they faced.

Galvin (2014) stated the research has to be credible for a critical, academic audience. The audience may ask whether the interviews answered the (a) research question, or (b) if participants selected truly represents the population. These points are not trivial and raise the question of the number of participants interviewed to receive saturation of a full data field.

Walker (2012) posited the concept of saturation, although readily used by qualitative researchers, is sometimes vague, and the process lacks systematization and definitive rules. In an example, in 15 studies that were reported, the researchers did not explain the use of saturation and did not give clarity on how they arrived at saturation. Walker posited researchers need to understand the importance of describing the process thoroughly and give some account of how they arrived at saturation in their study (Walker, 2012).

Transition and Summary

In this section, I described the researcher's role in the process of the collection of data including the ethics of mitigating bias and a view from the lens of the researcher. Two areas covered were the eligibility criteria and strategy for gaining access to interview participants. To interview participants, I devised a plan on what population to sample, the sampling method, and the number of participants to ensure saturation. The ethical standard was a key point in the discussion to complement the standards for informed consent and of Walden University's criteria to conduct a study. I discussed the data collection methods and described the advantages and disadvantages in the techniques used for data collection and analysis. Finally, I explained the validity of the study using the four factors that develop the trustworthiness of a study including dependability, credibility, transferability, and confirmability.

In Section 3, I will discuss the application of this study to professional practice and implications for change along with the presentation of findings. The presentation of findings includes the 5 themes that surfaced from analysis of the participants' responses. These themes serve as the basis for the discussion of the study's contribution to social change, enumerating strategies health care business professionals could use, and implications for conducting further research. Section 3 culminates with a presentation of my reflections, summary, and conclusions.

Section 3: Application to Professional Practice and Implications for Change

Section 3 includes the findings of the research study. Furthermore, Section 3 includes (a) introduction, (b) presentation of findings, (c) application to professional practice, (d) implication for social change, (e) recommendations for action, (f) recommendation for further study, (g) reflections, and (h) summary and conclusions of the study. I present the findings of the study by main themes based on the research question.

Introduction

The purpose of this qualitative, single case study was to explore EMR strategies health care business professionals use to increase productivity and revenue. I imported data collected from semistructured interviews and the review of organizational documents into NVivo 11 qualitative analysis software for coding. The emergent themes showed the strategies revealed by participants based on the central research question, analysis of data from the interview responses, organizational documents such as meeting minutes, handbook and the participants' views, experiences, and perceptions regarding strategies health care business professionals use in answering the central research question.

I identified 15 core emergent themes, which I grouped into five main themes. The five main themes encompassed (a) strategies to implement the EMR implementation, (b) strategies leaders use to support and sustain the EMR, (c) strategies to help users accept the EMR, (d) communication and efficiency strategies to increase productivity and revenue, and (e) strategies to help users improve health care safety. To implement and

sustain the EMR, health care business professionals used (a) user acceptance, (b) cultural change, (c) training, and (d) communication. Strategies leaders use to support EMR implementation: (a) workflow, (b) vendor and customization, and (c) finance and support. Strategies to help users accept the EMR were: (a) assign roles, and (b) feedback. Communication and efficiency strategies for increasing productivity and revenue were: (a) accuracy of content, (b) efficiency, (c) sharing information, and (d) care coordination. Strategies to help users improve health care safety were: (a) data quality, and (b) authority to request or disclose information.

Presentation of the Findings

The overarching research question for this study was: What EMR strategies do health care business professionals use to increase productivity and revenue?

Emergent Theme 1: Strategies to Implement the EMR

The first main theme was strategies health care business professionals use to implement the EMR. Participants' responses to Interview Questions 1, 4, and 7 indicated the basic strategies health care business professionals used before implementation of the EMR. Within the first main theme, there are several strategies in the data identified by all participants in their responses, organizational documents, member checking, literature review, and confirmed by current research. These essential strategies are user acceptance, cultural change, training, and communication to increase productivity and revenue. Halas, Singer, Styles, and Katz (2015) explained that these strategies were essential in sustaining EMR implementation. Participants' responses showed the importance of being able to understand key factors use as strategies such as how to implement and sustain change

prior to and during the implementation of the EMR. The literature review also supported this strategy, and in certain situations conflicted with the data gathered regarding the themes and strategies.

Within the first main theme, there are several strategies identified by all participants in their responses, organizational documents, member checking, literature review, and confirmed by current research. Participants' responses showed the importance of being able to understand how to implement and sustain change prior to and during the implementation of the EMR. These essential strategies are user acceptance, cultural change, training and communication to increase productivity and revenue (Halas et al., 2015).

Findings of this study indicated that having these strategies were a key factor for health care business professionals to implement the EMR. Health care business professionals should consider user acceptance and cultural change, which promote acceptance of the EMR, resulting in increased productivity and revenue (Abdekhoda, Ahmadi, Gohari, & Noruzi, 2015; Kim, Lee, Hwang, & Yoo, 2016). Findings also indicated health care business professionals need to adopt a change management process to help prepare staff for the transition from paper records to the electronic medical record.

The findings of this study were consistent with the research of Gheorghiu and Hagens (2016), who noted continuous improvement and understanding change is important to implement and sustain successful EMR. Table 1 indicates the frequency of occurrence of core strategies, affirming that understanding of implementing and sustaining change during EMR implementation are essential to increasing productivity

and revenue. These strategies are user acceptance, cultural change, training, and communication (see Table 1).

Table 1

Strategies to Implement the EMR

Strategies	*n*	% of frequency of occurrence
User acceptance	35	32.41
Cultural change	33	30.56
Training	25	23.15
Communication	15	13.89

Note. *n* = frequency.

User acceptance. Participant responses and organizational documents showed leaders were cognizant of user acceptance as a strategy. P1 noted not knowing how to use the EMR was one of the greatest obstacles to implementation. P2 confirmed P1's statement and indicated she had never touched a computer and could not even make the mouse move. P2 further explained being overwhelmed and afraid of working with the EMR technology because there was a big learning curve. Wu, Wen, Chen, and Hsu (2016), indicated that giving repeated training a novice could enhance their acceptance of learning.

Conversely, P4 and P6 mentioned that because they had so much experience with computers, the EMR navigation took little or no effort. In the literature review, Mohammed et al. (2016) confirmed P4 and P6's statement indicating attitudes and

behaviors of humans was one of the biggest factors related to acceptance of the EMR. Wu et al. (2016) used the TAM to study acceptance and training for novice and experts, with results showing that training enhanced students' learning. The research conducted by Wu et al. aligns with and confirms the conceptual framework in which the researcher used the TAM to understand acceptance and ease of use.

Both P3 and P7 stated leaders had used champions to help assist, guide, and influence staff for user acceptance of the EMR. Boswell (2013) confirmed P3 and P7's statement indicating employees that had a positive attitude were champions of the effort to promote EHR implementation. Confirming the use of this strategy P3 provided an email sent to employees in her organization, wherein leaders noted that as a group, they would discuss the early learning opportunities champions would present to their units. P3 and P7 noted leaders brought in clinical staff as champions to support peers during training and implementation and to build a shared understanding of the EMR technology. P3's and P7's mentioning of champions to assist or influence staff in user acceptance was also in alignment with meeting minutes of August 2015, stating leaders has provided a chart with individual names responsible for reaching out and assisting other staff.

Boswell (2013) noted employees that had a positive attitude were champions ready to promote EMR implementation. As related to the central research question, Kim et al. (2016) indicated user acceptance and performance was directly related to increased productivity and revenue for organizations implementing the EMR. The findings indicated through champions who assist staff, user acceptance, and ease of use increased.

Cultural change. Data from participant responses and the handbook confirmed the findings of previous research in regard to cultural change. Edson (2012) showed people who have conscious awareness of the need to change adapt to the change. Edson noted that adapting to change was essential for transformation and leads to increased productivity and increased revenue. This is confirmed by way of an email May 2016 from an organization that went live 2 months before, which stated "Thank you for attending the readiness meeting which focused on the way ahead. We recognize the reactions and the challenges that occur throughout implementation." This was confirmed in P3's employee handbook stating there is a two-hour training focused on managing change and communicating key messages to managers.

P2 explained resistance also came from older physicians and nurses who were not willing to change from written records to EMR entries. In the literature review, Meslin et al. (2013) endorsed P2, indicating when organizations design EMR systems they need to balance needs, and hospital leaders may need to change their culture and adopt a new paradigm. The change of culture may include a new vision, the way of thinking, and the way things are done, for example, written records to EMR entries.

While P1 explained that leaders created a vision for the future of the organization, P2 and P3 explained management established a sense of urgency on why the change should be now. In a handbook provided by P3 leaders noted that in an effort to realize the benefits of the EMR system they needed to rethink the way they operate and implement a system to reduce variability and decrease documentation duplication. In the literature review, Lau et al. (2012) stated with health care business professionals adopting the

EMR, the values also changed for staff and patients. Lau et al. pointed out that change led to better communication, coordinated care, improved quality, reduction of document duplication, and eliminated waste.

The strategy of changing the culture was important to understand EMR implementation. P4 explained that the key to implementation was to change the culture. If people are adaptable to change but do not understand why a change is needed, they revert back to the conventional way. P5 and P6 agreed with P2 that for an older population it would be more cumbersome, frustrating, and more difficult to adapt to the EMR system. P7 noted that since people are normally resistant to change, the organization gave staff enough education ahead of time to make them familiar with the process. Hornstein (2015) stated effective leaders significantly influence successful implementation of initiatives through education and training.

Culture change is an important strategy for facilitating EMR implementation by health care business professionals. The TAM also aligns with the theme of culture change in terms of facilitating acceptance of the EMR by changing user attitudes and behavior. The change comes about by managing how users perceive the change and through supports management implemented to sustain the EMR during and after the transition.

Training. Participants' responses and organizational documents showed leaders used training as an implementation strategy. All participants stated that their respective organizations provided mandatory, required, and online training for all staff. Staff viewed the training as support by managers to help understand and sustain the EMR.

P1 discussed that training was intense and leaders brought in people on site to provide training 24 hours a day. Although training was intense P1 noted, staff remained positive about the implementation. Ketikidis et al. (2012) findings were consistent with P1 and stated training in the applicability of health IT systems may result in higher acceptance use and ease of use. In contrast, Abdekhoda et al. (2015) noted training had no significant effect on use or ease of use.

P1 explained leaders provided a training environment whereby a staff member could go and practice documenting on pretend patients on computers in an environment called the sandbox. P7 confirmed the training environment existed called the sandbox and P2 and P3 confirmed pretend patients loaded on computers for practice documentation using the EMR in the lab. In the employee handbook called "education and roll out" indicated training would occur in open labs confirming P2 and P3's previous statement of pretend patients.

P2 noted educators came in to assess the skill set of each staff member on their level of expertise with the EMR technology before implementation. This allowed trainers to tailor training to meet the needs of individual staff. In the literature review, this was confirmed by Naqvi and Bashir (2015) who denoted a similar finding, highlighting that assessment of one's skills for training purposes enhanced commitment, influencing user acceptance and behavior. Baillie et al. (2013) agreed with Naqvi and Bashir, and P2 indicating certain barriers such as skill, training, and abilities would seem relevant to address before deployment of the EMR.

P2, P3, and P7 acknowledged leaders trained super-users to be responsible for training all other staff and to assist when called upon by staff. The employee handbook provided by P3 indicated super-users attended training sessions to prepare them to serve as an added source of support for users. My analysis of organizational documents showed training was an essential strategy used by leaders in promoting user acceptance and ease of use aligned with the conceptual framework of the TAM.

P4 stated leaders spent time in classroom training using a book, but hands-on training was lacking. P1 confirmed P4's statement regarding the use of a handbook to follow along rather than hands-on training. P6 stated although there was mandatory training, there is a continuous need to learn and train on the EMR, especially with new hires. In the literature review, Lee et al. (2013) confirmed P6's statement indicating strategies that include continuous training and technical support is necessary for users in the introduction of clinical EMR systems. Training failed because managers were not given the time and the basic level training that bedside nurses received during implementation (Lee et al.).

In the literature review, Cagle et al. (2012) and Mohammed et al. (2016) confirmed that organizations that adopt the EMR often lack adequate training and time, which limits usefulness and acceptance. There was documentation in the employee handbook that managers received 2 hours training to manage change rather than bedside training. This created a gap for managers and they were unable to navigate and pull reports in order to assist bedside nurses as stated by P7. Cho, Kim, An, and Chae (2015) noted frequency and attendance of training sessions, mandatory training and use of the

system, and practice improves access and understanding of clinical information with EMR implementation.

All participants confirmed the need for training which improves performance and efficiency, thereby increasing productivity and revenue. The findings indicated health care business professionals should create training opportunities for staff to develop acceptance, competency, and job performance for an organization. Managers may use mandatory, required, and online training to support staff in understanding EMR implementation.

Communication. Participant responses and organizational documents showed leaders used communication as a strategy resulting in increased productivity and revenue. In the organizational policy review, updates indicated the organization had a plan listing the new elements for education activities in preparation for EMR to go live. For example, a credentialed trainer program October 2015 to November 2015, super-user training November 2015 to December 2015, and staff and physician classroom training December 2015 to January 2016.

P1 confirmed leaders communicated the direction the organization needed to go because of reimbursement issues, care coordination, information, and quality of care. In the literature review, Mohammed and Yusof (2013) indicated that one strategy to assist organizations during implementation was better communication. According to Mohammed and Yusof when communication was lacking the result was poor IQ and acceptance in health care organizations. Better communication increased the quality of health care, efficiency, and safety.

P3 noted leaders communicated via newsletters and gave updates on new initiatives to keep staff engaged. The organization used this method as an implementation strategy to engage all levels of the organization in the change process. O'Neill, Hodgson, and Mazrouei's (2015) findings were consistent with P1 that when leaders used internal communication there was a correlation between shared beneficial relationship and increase productivity and profitability. Organizations realized ROE because staff were kept informed, engaged, and had autonomy over their work.

In an email dated June 2015, leaders wrote moving forward, the focus of readiness groups would shift from content review to workflow assessments. Groups would no longer meet on their own, but would integrate together to assess workflows, policy changes, and early learning opportunities. Nguyen, McElroy, Abecassis, Holl, and Ladner (2015) noted that, when hospital leaders facilitated communication as a strategy for implementation of a technology, it aided in well-being for staff and a higher rate of satisfaction.

P4 stated a key strategy to implementation was to keep everybody informed at every level, delivering both the good and bad news. P5 supports P4's statement and indicated when staff could not attend the meetings, to receive updates leaders would engage them through phone conferences. Through this form of communication, leaders communicated the future state using phone and email. By organizational documents and meeting minutes leaders engaged and ensured staff had a clear understanding of the implementation process of the EMR. In organizational documents dated October 2015,

leaders considered communication as an important strategy to engage and include staff during implementation of the EMR system.

The findings indicated that during EMR implementation, health care business professionals should consider user acceptance, cultural change, training, and communication in implementation defining clear evidence of the TAM. The findings also indicated leaders should adopt a change management process during the implementation of the EMR. The high frequency of user acceptance indicated user acceptance is paramount for EMR implementation. Therefore health care business professionals should access users level of learning through training, communication, and user acceptance to increase productivity and revenue.

Emergent Theme 2: Strategies Leaders Used to Support and Sustain the EMR

The second theme identifies the most effective strategies leaders used to support EMR implementation, corresponding to Interview Questions 2 and 6. Within this theme, there were several strategies mentioned by participants supported by organizational documents and confirmed by previous research. I found in my interviews that workflow, vendor, customization, finance, and support were core strategies health care business professionals used to increase productivity and revenue.

There was clear evidence of the use of the TAM specifically by the vendor and customization of the EMR. TAM purports that user acceptance and effort affects how well users interface with the EMR in health care (Kim et al., 2016). Within the second main theme, a system of strategies including workflow, vendor and customization, finance, and support allows for autonomy and compatibility. The findings of this study

indicated that these strategies are effective, because when leaders implemented these strategies productivity and revenue increased. Table 2 shows the core strategies that emerged from the data analysis regarding the most effective strategies to increase productivity and revenue by health care business professionals. Strategies that emerged were (a) workflow, (b) vendor and customization, and (c) fianance and support.

Table 2

Strategies Leaders Used to Support and Sustain the EMR

Strategies	*n*	% of frequency of occurrence
Workflow	40	36.04
Vendor and customization	36	32.43
Finance and support	35	31.53

Note. *n* = frequency.

Workflow. Interview Questions 2 and 6 related to the most effective strategies for increasing productivity and revenue. Participants' responses spoke to the effectiveness of realizing a return on investment. Findings of this study indicated the most effective strategies for user acceptance, cultural change, training, and communication depend on leaders understanding workflow (Lee et al., 2013). To understand workflow leaders considered time, benchmarking, space, and workload.

P1 stated the EMR does save time in terms of eliminating the need to repeatedly enter the same information for a patient that has been seen multiple times. In addition, P1 noted there was a disruption in the workflow until staff got used to the system. P2

concurs with P1 that disruption increased in the beginning because of the learning curve. P7 indicated leaders did not understand the importance of workflow, which overwhelmed staff and decreased productivity. Hossain, Rasel, and Talapatra (2015) confirmed P7's statement that when leaders understood and planned for workflow changes, there were reduced costs, reduced time, and maximized labor efficiency. P3 added leaders mapped the workflow prior to going live. Information included in a handbook named Epic Transformation Overview dated October 15 confirmed P3's statement indicating that mapping out of the transformation initiative overview, optimizing time, and showing a timeline, were strategies employed in rolling out the EMR.

P4 noted to understand workflow, leaders need to go where a system is actually in use and benchmark how the system is designed, scheduling of the roll-out, and how to optimize space. A document obtained from P3, entitled *Patient Access Transformation* and dated October 2015 indicated leaders considered the future state for a consistent point of access, registration, scheduling, and order transcription. In the literature review, Cresswell et al. (2013) drew similar conclusions that the design in the technology affected the workflow, interface, and computer compatibility.

P3, P4, and P5 confirmed leaders conducted a walk-through and considered the space capacity to determine optimal use of the EMR system. P6 noted that because leaders were presently making some unplanned changes it was very challenging in terms of scheduling, which affected the time to input data. Hossain et al. (2015) confirmed P6's statement acknowledging the importance for leaders to understand and optimize the capacity of a bottleneck, which in effect could reduce the time and maximize workload.

In the literature review, Lee et al. (2013) confirmed P6 and P7's statement that EMR used as a platform can improve and coordinate workflow, enhancing quality and productivity.

P5 explained leaders expected employees to maintain the same workload during the implementation of the EMR, and this caused frustration since there was not enough time to input data. P7 confirmed P5's response that time was a factor in inputting data and how well staff accepted the EMR. This aligns with the literature review in which Cagle et al. (2012) and Mohammed et al. (2016) stated organizations that adopt the EMR often lack time for training, that limit the EMR's usefulness.

The findings indicated workflow is a strategy leaders need to consider in their implementation of the EMR in order to increase productivity and revenue. Workflow maximization as a strategy is aligned with the TAM used in the conceptual framework of this study. Based on the TAM if the workflow is not designed to meet the needs of the user there is a lower acceptance of EMR technology (Kim et al., 2016). Factors found to affect workflow included time, benchmarking, space, and amount of workload during implementation.

Vendor and customization. Interview Questions 2 and 6 related to the most effective strategies for increasing productivity and revenue. Participants' responses spoke to the effectiveness of vendor customization and how leaders achieved acceptance, increased productivity, and increased revenue. These included an understanding of the needs, reviewing proposals, capabilities, and regulations for vendor customization.

P1 noted leaders tailored the EMR system to the needs of the department. For example, if you worked as an operating room nurse there was a special interface for what

nurses do in the operating room setting. However, P1 noted if staff wanted to add an additional piece of data or change anything on the EMR system it was extremely cumbersome, taking as much as 6 months. In contrast, P6 felt leaders had vendors do a general customization so the system could accommodate many different types of work.

P2 explained leaders reviewed systems and proposals from different vendors for proper design to save on costs during implementation. P3 confirmed P2's statement that leaders had different vendors put together their proposals of what they could provide as a system. With an integrated system, leaders would not have to do continuous updates and would be able to transfer the correct information into the system.

In addition, P4 and P7 stated there are numerous vendors out in the market with different types of systems. P4 noted leaders need to understand the capabilities, cost, warranty, contract, and the number of years of implementation with the initial system before upgrades or the change becomes obsolete. Similarly, in the literature review Reina et al. (2012) confirmed P4 and P7's statement indicating there are many systems out on the market sold by vendors that are not compatible for some organizations. Wang et al. (2013) agreed with Reina et al. indicating when health care business professionals implement the EMR technologies, there is often a lack of interoperability and compatibility during and after implementation.

P7 noted some features could not be customized because it was the only version in use. In addition, P7 mentioned each state has different standards and laws of how the EMR should be implemented. For example, in a mental health unit, the system needs to be in compliance with the mental health requirement. P7 also noted there is an OSHA

requirement and organizations in Virginia and Kentucky did not have the same requirement. P1 confirmed P7's statement indicating there were different laws in New York state with specific documentation needed in order to meet compliance, as compared to the state of Virginia. In the literature review, van Eaton et al. (2014) confirmed P7's statement indicating EMR systems were not standardized, features were different, and there was a high rate of vendor turnover. Wolf et al. (2012) explained that vendors and providers alike might not understand the type of system to buy that may increase their functionality, which could prove costly.

The findings indicated vendor and customization concerns are important factors for implementation of the EMR to increase productivity and revenue. When managers fail to transfer the right information from paper records or other systems it becomes cumbersome, which decreases productivity. Because of lack of suitable interface of systems, time became a factor since organizations could not capture data that perhaps affected clinical decisions to show an increase or decrease in performance. Kruse, Mileski, Alaytsev, Carol, and Williams (2015) indicated time was an important factor for implementation and understanding the capabilities of the EMR system.

Finance and support. Interview Questions 2 and 6 related to the financial risks and support as relevant to strategies for increasing productivity and revenue. Participants' responses spoke to the effectiveness of how leaders considered the financial risk and provided for EMR implementation. These risks include ROE, cost, and cost savings (Kruse et al., 2015; Lee et al., 2013; Najaftorkaman, Ghapanchi, Talaei-Khoei, & Ray 2015).

P1 and P5 noted there was nothing cheap about the EMR system and they were not convinced the system would garner a ROE for the organization. In the literature review, Lee et al. (2013) confirmed the statement of P1 and P5 in which 309 hospitals participated in the study. The first conclusion was there was no evidence to show how IT affected costs, ROE, or quality of patient care (Lee et al., 2013). Najaftorkaman et al. (2015) indicated because health care business professionals were uncertain about adding EMR technology and the start-up costs to their organizations, ROE was negatively related to EMR adoption. Kruse et al. (2015) confirmed P1 and P5's statement indicating EMR implementation was costly and an organization needed dedicated financial resources for start-up and maintaining the system.

P4 indicated in the interview that if a company chooses a system based on cost, the organization could make a poor business decision. In the literature review, Sinsky et al. (2014) mentioned the EMR could result in substantial waste, diminishing the value of the technology. P4 noted a number of years for implementation, the cost of upgrades, and the warranty and contract was important. P3 also concurred with P4 that integration and upgrades were expensive. However, P3 added although expensive, supply purchases, materiel management, and work performance was easily tracked. An organization could now determine productivity, ROE, and reports could be printed out. In the literature review, Lee et al. (2013) confirmed P3's statement indicating hospital leaders' business practices, for example, may benefit from a system implemented in supply, finance, and other service industries.

P3 explained in the short run the EMR was expensive but in the long run, an organization would save money. For example, inputting all the records and using the EMR compared to writing in records could save on future manpower costs. Higgins et al. (2012) confirmed with time, expenditures decrease because of the electronic documentation rather than dictation, which results in a greater ROE for health care business professionals. Payne et al. (2013) findings were consistent with P3 that the EMR was expensive to implement for start-up and revenue for hospital organizations decreased in the short term.

A start-up cost noted by P7 was training a bedside nurse for 4 months everyday had an on-going cost. P3 confirmed P7's statement that they had to take away staff from their actual workspace for 5 months to train them, which increased the cost and lowered productivity. P1 and P3 explained they had experts brought in by leaders from all over the United States to offer support to staff during training and implementation. Attached to this were on-going costs since these contractors remained on-site. Kruse et al. (2015) confirmed P1 and P3's statement indicating to have EMR implementation there were start-up costs, as well as on-going costs.

Participants were able to confirm leaders allocated resources and engaged staff with implementation. This was done through training, updates, and communicating an understanding of the transformation involving EMR technology. Although P1 and P5 indicated they were not convinced EMR would garner an ROE, P2 and P3 stated in the short run organizations would lose ROE. However, in the long run, organizations would realize ROE based on quality, increased productivity, and revenue.

The findings indicated leaders need to consider the financial risks before and during the implementation of the EMR. Some of these financial risks include start-up and on-going costs to maintain the system. An example of these start-up costs was training a bedside nurse for four months, which became an on-going cost. In the literature review, Lee et al. (2013) indicated strategies included continuous training, communication, and technical support are necessary for users resulting in on-going costs during and after implementation of the EMR. In addition, the EMR could be used as a tool to track supplies and work performance to determine productivity and ROE.

Emergent Theme 3: Strategies to Help Users Accept the EMR

The third theme identifies the most effective strategies leaders used for staff to accept EMR implementation, corresponding to questions 3 and 4 of the interview. Within this theme, there were several strategies mentioned by participants supported by organizational documents and confirmed by previous research. I found in my interviews assigned roles and stakeholder feedback were core strategies health care business professionals used to increase productivity and revenue. The findings showed organizations that implement these strategies have a greater chance for EMR implementation success.

Given the strategies of assigned roles and stakeholder feedback seems there was clear alignment with the TAM, specifically in assigning roles and giving feedback based on the understanding of the EMR (Raymond et al., 2015). Staff embraced the culture accepting change, and also being able to navigate the system in order to give feedback. Health care business professionals motivated staff, by giving autonomy to staff, and

foster user acceptance through feedback. These strategies are consistent with the PEOU, functional coverage, and user acceptance as defined in the TAM (Raymond et al.).

Table 3 shows the strategies that emerged from the data analysis regarding the most effective strategies to increase productivity and revenue by health care business professionals. Strategies that emerged were assigned roles and stakeholder feedback. Through organizational documents, participant responses, member checking, and the literature review, the findings of the study showed practices health care business professionals use with EMR implementation to increase productivity and revenue.

Table 3

Strategies to Help Users Accept the EMR

Strategies	*n*	% of frequency of occurrence
Assign roles	20	58.82
Stakeholder feedback	14	41.18

Note. *n* = frequency.

Assign roles. Interview Questions 3 and 4 related to the assigned roles for staff during implementation of the EMR. Participant responses spoke to the effectiveness of strategies health care business professionals can use to increase productivity and revenue. Findings from this study indicated the most effective strategies are assigning roles and engaging staff in giving feedback. Chew and Entrekin (2011) and Hewitt (2012) noted when managers value employees by showing recognition through training opportunities,

assigned roles, and allowing staff to engage in feedback, they ensured staff had ownership in the process.

According to P1, leaders chose a committee that would be responsible for training and implementation of the EMR. P1 noted supervisors had to learn about EMR processes such as admitting patients and the different functions that pertained to their work. Meeting minutes provided by P3 dated March 2015 indicated the physician advisory committee had approved the decision to not automatically convert ambulatory offices to using a clinical EMR. P1 noted the frontline staff was chosen to lead training in their respective areas.

P2 and P3 explained there were other assigned roles such as the super-user who would assist and support staff. A handbook from P3's organization indicated what the function was of super-users. Super-users were considered the experts, who could navigate and understand the ins and outs of the system. Super-users were staff who attended training sessions to prepare them to serve as an added source of support during training, in the go-live period and beyond. Super-users were also responsible for reviewing training tips, just-in-time workflow changes, troubleshoot, and respond to questions during the go-live period as indicated in a document from P3's organization. Super-users may play a major role in successful technology adoption by providing an understanding of tasks and workflow, and providing support to other users during EMR implementation (Grabenbauer, Skinner, & Windle, 2011).

P7 explained the organization used bedside staffing to serve as educators, motivators, and champions of change. P3 agreed with P7 that the champions of change

were also the staff that could influence people and be a positive support for the implementation of the EMR. In the literature review, Ajami and Bagheri-Tadi (2013) explained support, facilitation, and user attributes are necessary essentials for EHR implementation. Aligned with P3 and P7's statement in the literature review, Boswell (2013) found employees that had a positive attitude were champions ready to promote EHR implementation.

P3 indicated leaders selected subject matter experts (SMEs) to serve as readiness owners. An email provided by P3 dated July 2015, indicated the organizations chose certain SMEs to serve as readiness owners, who validated sessions and lesson plan reviews for training. In an email dated July 2015, the SMEs were responsible to validate workflows, ensure teaching method, and offer feedback on the training program. Kawamoto et al. (2013) findings were consistent with P3's statement of an SME serving as personnel with an authority in a certain area or topic.

P7 stated the organization had a credentialed trainer program. A document provided by P3 confirmed P7's statement that credentialed trainers were staff who would attend a robust 6-week program to prepare them for educating users in the classroom. In another document supporting planned training, the rehabilitation staff was assigned to follow scripted scenarios to simulate departmental workflows and understand how the EMR system would work in real-time.

These findings indicated that participants mentioned how leaders gave them assigned roles and asked for feedback. In addition, P1 mentioned a committee to lead implementation, while all other assigned roles as noted were driven by the frontline staff.

With the exception of champions used as coaches and super-users who served as motivators and support for training, most staff were involved in classroom training. Training, however, is an essential strategy needed to support user acceptance and ease of use for the implementation of the EMR.

Stakeholder feedback. Interview Questions 3 and 4 related to the feedback staff gave during the implementation of the EMR. Participant responses spoke to the effectiveness of strategies health care business professionals can use to increase productivity and revenue. Some of these factors included understanding the bureaucracy and using email and other updates to acknowledge and act on feedback given by staff.

P1 indicated that although staff gave feedback there were so many layers of bureaucracy, that to make any kind of change after initial launching becomes impossible. P7 confirmed P1's statement indicating although upper management was very good about listening, making a change to the system was cumbersome. A change to the system was something managers were not willing to attempt, especially since they needed acceptance from 13 other hospitals in their system which had implemented the same EMR program. Feedback is important, whether positive or negative and is critical in achieving goals (Abdekhoda et al., 2015). Because there were so many layers of bureaucracy adopting changes to acknowledge feedback from staff was often cumbersome.

P3 indicated the organization asked staff to email their input, thoughts, and ideas for consideration throughout the implementation process. P3 stated staff would organize these emails into the system as updates. An email dated March 2015 confirmed leaders encouraged managers to accept feedback before the training program rolled out to staff.

P5 and P6 confirmed P3's statement, indicating leaders always asked for feedback on their thoughts during implementation on how they could customize the system. P5 indicated feedback information was later uploaded to a file which they would then use to make any changes to the system.

The study findings indicated that incorporating feedback could be cumbersome and caused frustration, as mentioned by P1 and P7. P3, P5, and P6 noted feedback was asked for by management and small changes were made to update the system. By engaging staff during the implementation, leaders were able to translate these updates into a system and make changes. P4 indicated the feedback was uploaded to another system and addressed as management saw fit. With management empowering staff to give feedback and act on the information, staff acknowledges ownership, and acceptance could result in increased productivity and revenue (Abdekhoda et al., 2015).

Emergent Theme 4: Communication and Efficiency Strategy for Increasing Productivity and Revenue

The fourth theme showed the most effective strategies leaders used for staff to communicate and efficient use of EMR implementation, corresponding to questions 4 and 6 of the interview. Within this theme, there were several strategies mentioned by participants supported by organizational documents and confirmed by previous research. I found in my interviews accuracy of content, efficiency, sharing information, and care coordination were core strategies health care business professionals used to increase productivity and revenue. The findings showed organizations that are consistent with

these strategies have a greater chance of EMR implementation acceptance, performance, and efficiency (Raymond et al., 2015).

Given the emergent themes of accuracy of content, efficiency, sharing information, and care coordination (see Table 4) seems there was clear alignment with the TAM, specifically in use of the function to improve continuity of care and efficiency based on understanding of the EMR (Kim et al., 2016; Raymond et al., 2015). These strategies are consistent with the PEOU, continuity of care, efficiency, and performance as defined in the TAM (Kim et al.). Strategies that emerged were accuracy of content, efficiency, sharing information, and care coordination (see Table 4).

Table 4

Communication and Efficiency Strategy for Increasing Productivity and Revenue

Strategies	*n*	% of frequency of occurrence
Accuracy of content	26	18.44
Efficiency	41	29.08
Sharing information	34	24.11
Care coordination	40	28.37

Note. *n* = frequency.

Accuracy of content. Interview Questions 5 and 8 related to the accuracy of the content, health care business professionals use to increase productivity and revenue. Participant responses spoke to the effectiveness of strategies health care business professionals can use to increase productivity and revenue. The findings from this study

indicated the most effective strategies which align with research are the accuracy of content and efficiency. The EMR could be used as a tool to decrease errors in writing providing a higher level of verification and to capture other data financial data.

P1 noted the access to the EMR provided a higher level of verification**.** The findings of this study regarding the accuracy of content align with previous research. Information was legible in comparison to written material in charts, which eliminated the problem of misreading someone's handwriting. However, P1 noted for information to be written in the EMR and to be accurate took longer than writing in charts. P2 indicated not only was the information accurate but with the new system, errors had decreased. In the literature review aligned with P2, Kumar and Bauer (2011) confirmed and indicated another benefit was an EMR system could reduce errors made by businesses, decreasing costs in the health care industry. However, P1 indicated that bar code scanning for medication had not significantly decreased the errors, and the whole point of EMR implementation was to administer safer health care. This aligns with research in the literature review, specifically Or et al. (2014) which indicated that problems with missed medication orders or documentation errors have been reported in accordance with EMR implementation.

P3 indicated there were other vendors using the same system, for example, Johnson and Johnson, a company that sells hospital supplies. P3 indicated the organization bought supplies from Johnson and Johnson. The organization could track the logistics for buying products through the computer system, and the organization could capture the picture of the spending process. P3 aligned with Bardhan and Thouin (2013)

indicated results suggest EMR can be used for financial management systems associated with and capturing other operating expenses besides scheduling and inputting charts.

P5, P6, and P7 indicated the exchange of information is only as accurate as the information inputted into the system. For example, P3's response aligned with the information listed in the meeting minutes she provided from April 2016, which related that staff was not using the proper tabs to document information. The result was incorrect information being entered.

The findings indicated the accuracy of content was consistent with EMR implementation. Although there were problems and errors in accordance with user use, the EMR could also be used to capture other financial operating expenses. These financial operating expenses included tracking of supply expenditure and materiel management.

Efficiency. Interview Questions 5 and 8 related to the efficiency strategy health care business professionals use to increase productivity and revenue. Participant responses spoke to the effectiveness of strategies health care business professionals can use to increase productivity and revenue. The findings from this study indicated one of the most effective strategies which align with research is efficiency. Through efficiency health care business professionals saved time, and improved quality of information, using system integration to access data.

The EMR saves time by not having to repeatedly enter the same information on a patient that has been seen multiple times. Information can now be carried over from one admission to another. P1 indicated the EMR system has streamlined the process although

sometimes information seemed to be missing when reports were completed to verify content. Users did not know how to input or retrieve information from the EMR. P3 and P7 confirmed running reports often revealed that there was missing information. A user would then end up pulling additional reports to verify information, which took additional time.

P2 indicated since clinicians had to enter their own orders into computers, work expectations were made easier for other users, especially nurses. In the literature review, P2 aligned with Top et al. (2013) indicating nurses thought the implementation of the EMR improved the quality of information by eliminating excess paperwork. P2 indicated time was important and clinicians could release the orders to all departments immediately. P2 noted a disadvantage was a user had to learn all the tabs and know how to use the features. P2 also indicated that clinicians could order several tests at a time. For example, labs and tests that took 30 minutes before took approximately 5 minutes after implementation. In the literature review, King et al. (2014) indicated and aligned with P2 that 30% to 50% of physicians communicated that the EHR conferred benefits. These benefits included patient care, ordering tests, and communication.

P3 stated the goal of the organization was to get one integrated software system and not have to interface with other systems, causing the computer to freeze or slow performance of the system. For example, P5, P6, and P7 agreed that the same patient history could be viewed by all users integrated into the same system. P3 acknowledged having a patient's records and history from past encounters facilitated the efficient gathering of patient information.

P4 indicated with the EMR system, accessing data is much easier and faster. In the literature review, P2 aligned with Terry (2013) indicating handwritten charts were missing information, were not updated, and documentation was scattered throughout the chart, creating a lack of consensus in treatment. However, if a clinician was not familiar with the features of the system or properly trained, accessing information in the EMR also becomes cumbersome. The clinician would need to look in several places to access the information. P4 also explained if the EMR system goes down clinicians have to write in the charts, which takes additional time. P2, P3, and P6 confirmed when the system goes down, users must record information on paper, and then input it into the EMR later. P1, P5, and P7 noted when the system goes down they have a mechanism in place called downtime forms for recording information and later input in the computer.

P7 indicated that although information was readily available, sometimes a user had to search in different places to pull information that should be under a certain tab, resulting in no information. P6 confirmed P7 indicated knowing the tabs and features of the system were essential in being able to access the correct information. In addition, clinicians were able to discuss a patient diagnosis with other clinicians.

The findings indicated that there is redundancy since there are so many other applications that do not even apply to the user, making the EMR system non-intuitive. P7 indicated the EMR system is so massive there are many things available, but there is not enough time to learn or for users to learn on their own. In the literature review, P7 aligned with Goldsack and Robinson (2014) indicating where the technology was unlikely to show success and improvement were with efficiency. These operational

efficiencies were misunderstood by staff due to the magnitude of the system. If organizational leaders take these strategies into consideration health care business professionals can better streamline their process resulting in increased productivity and revenue.

Sharing information. Interview Questions 5 and 8 related to sharing information health care business professionals use to increase productivity and revenue. Participant responses spoke to the effectiveness of strategies health care business professionals can use to increase productivity and revenue. The findings from this study indicated one of the most effective strategies which align with research is information sharing. Through information sharing, health care business professionals improved collaboration, accessing of information, reduced costs, and minimized errors using alerts.

P1 indicated enhanced collaboration with physicians in the community since clinicians can access the labs and diagnostic tests and clinician notes, improving quality and efficiency. P2 confirmed what P1 stated, that all departments across the continuum who had a need to know could see the notes entered by the clinician in real time. P4 confirmed P2's statement that the process was a lot easier and faster. In the literature review, P1 and P2 aligned with Payne et al. (2013) indicating electronic medical records have been shown to enhance data sharing among clinicians resulting in reduced costs and increase the quality of medical services.

P5 indicated the EMR feeds other systems with information so patients can see their EMR from home via a computer. P1 confirmed P5 indicating the existence of a portal, called *My Chart* from which patients could access their own EMR at home. In

addition, P2 and P3 stated exchange of information runs smoothly both internally and externally, improving quality and efficiency. For example, information is more accessible than having to search for charts on a shelf. In the literature review, P3 aligned with Ting, Lp, Tsang, and Ho (2012) indicating sharing of data increased in organizations that implemented the EMR. The exchange of data helped to reduce costs and raise medical service standards for organizations.

P2 noted getting medications on time was an added value and if a medication was missing a user could email the pharmacy directly because the EMR system would send an alert. P2 aligned with Guy et al. (2014) and Ting et al. (2012) indicating that another value added besides the distribution of data was communication. Communication increased among providers. One form of communication was physicians received an alert when they prescribed the wrong drug or dosage to patients from the EMR system.

In the findings, P1 and P2 indicated that clinicians have a greater opportunity to share information and increase collaboration even though they may not come in contact with the person who inputted the data. Rashid and Yasin (2015) confirmed in their research what P1 and P2 indicated, stating sharing information and collaboration considerably improved the patient's care. However, P7 indicated if people are unable to access the information because of not knowing the features, then there is actually a lack of sharing of information. Because of sharing of information, collaboration, access to information, reduced costs improved for patients, significantly increasing productivity and ROE for health care business professionals.

Care coordination. The strategy of care coordination emerged as being critical to the ability of health care business professionals increasing productivity and revenue. In meeting meaningful use, care coordination is paramount. Factors that related to the strategy of care coordination health care business professionals used to increase productivity and revenue included care coordination, practice alerts, system compatibility, and improved patient interaction through real-time information and additional assistance using scribes.

P1 indicated improved care coordination created a greater ability for clinicians to coordinate patient services, for example sending referrals and responding to requests for information. P2 stated with the EMR in real-time the clinician could see the patient dashboard and see what medications to give and which ones the patient was receiving. P2 also indicated the clinician could see if the patient had an admission or discharge from the present hospital or where they have been seen before, improving patient care. P2 aligned with Edwards (2012) indicating the EMR improved patient care, provided health care savings, reduced medical errors, promoted efficiency savings, and revenue.

P5 agreed with P7 that for safety measures, a clinician gets a practice alert. In the literature review, one form of communication was that physicians received an alert when they prescribed the wrong drugs to patients from the EMR system (Guy et al., 2014; Ting et al., 2012). P5 indicated this alert informs the clinician what medication the patient was taking that could place them at risk for interactions or adverse effects.

P3 indicated that getting one integrated software system that was compatible with other practices externally, was essential for coordinating care with other practices, other

clinicians, decreasing time, using fewer resources and saving the organization money. In the literature review, Price and Lau (2014) confirmed that a system that is compatible with other systems can change and improve health care delivery. Jarvis et al. (2013) agreed with Price and Lau and P3 the greatest gain in the EHR use would materialize when hospital leaders implement a fully integrated EHR.

P6 agreed with P2 that the clinician had to find a balanced medium between the patient and the computer interaction. Patients complained about a degradation in the interaction with the providers when the EMR was used, which in effect would lower patient satisfaction and quality of care. However, in the literature review, P6 and P2 aligned with Sinsky et al. (2014) who indicated the integration of the EMR is a strategy that increases communication between provider and patient and produces efficient use of health care resources.

P2, P4, and P6 indicated that a clinician could get information in real time. For example, P5 indicated a clinician was able to see the list of medications, labs, the history, and evaluate a patient immediately instead of having to look through paper charts. P5 stated this saved time and provided quality of care. P6 noted because of this available information a clinician could print out a summary of care to communicate and give to the patient. In the literature review, P5 and P6 aligned with Burwell (2015) who indicated with the integration of EMR and interoperability, patients' records would be available in a timely manner and at the point of care.

P7 indicated in the future doctors may need scribes to input their data into the computer. Because of spending time inputting data into the computer there was a lack of

time to spend with the patient, decreasing patient satisfaction. Bank and Gage (2015) and Lin, Khoo, and Schillinger (2016) indicated an emerging trend in today's medical environment is for clinicians to use scribes. Lin et al. explained that use of scribes has a great potential to increase efficiency, productivity, revenue, and return on investment.

The findings indicated care coordination is an important strategy for organizations to implement using the EMR to increase productivity and revenue. P3 indicated with coordinated care, a group of providers can help determine the best care for a patient, which saves time and money. P7 indicated the EMR provides real-time information, but with clinicians spending time doing administrative essentials, organizations were losing on ROE. In the literature review Iglehart (2013) aligned with P7 indicating that some of the challenges were although the EHR bolstered patients' satisfaction, physicians' work increased. P7 indicated to increase care coordination clinicians would need to hire scribes to spend time entering data resulting in quality care for the patient increasing efficiency, productivity, and ROE.

Emergent Theme 5: Strategies to Help Users Improve Health Care Safety

The fifth theme identifies the most effective strategies leaders used for staff to communicate and efficient use of EMR implementation, corresponding to questions nine and ten of the interview. Within this theme, there were several strategies mentioned by participants supported by organizational documents and confirmed by previous research. I found in my interviews where data quality and integrity, and authority to request or disclose information were core strategies medical professionals used to increase productivity and revenue. The findings showed organizations that are consistent with

these strategies have a greater chance PU and compatibility using factors such as data quality and integrity, and authority to request or disclose information (Ma, Kuo, & Alexander, 2016).

Given the strategies of data quality and integrity and authority to request or disclose information, there was clear alignment with the TAM, specifically with factors such as PU and compatibility (Ma et al., 2016). The staff's attitude and their behavior regarding the use of data, and the authority to request or disclose information was useful in increasing productivity and revenue. Table 5 shows the core themes that emerged from the data analysis regarding the most effective strategies to increase productivity and revenue by health care business professionals.

Table 5

Emergent Theme: Strategies to Help Users Improve Health Care Safety

Strategies	*n*	% of frequency of occurrence
Data quality and integrity	15	55.56
Authority to request or disclose information	12	44.44

Note. *n* = frequency.

Data quality and integrity. Table 5 shows the themes that emerged from participants answering question nine in answer to the central research question. Strategies to help users manage safety is important in the implementation of the EMR The responses from participants indicated how safety aligns with the TAM, having an effect on increased productivity and revenue. Although the EMR increased safety by using a

date, time, stamp the alerts and prompts often frustrated health care business professionals.

P1 indicated that a record is kept in the EMR of all entries, and any entry in a chart has the date, time, and stamp. P3 endorsed P1 stating there is an audit trail of everyone that has entered the system. P2 indicated now a clinician had to justify why a patient was still in the hospital if the patient should have been discharged previously. This was done by an alert or prompt to quality control and the clinician. In the literature review McGuire et al. agreed with P2 and suggested to avoid an adverse effect, safety organizations should continuously monitor how the staff uses the EMR.

P5 explained that there are also especially sensitive charts, such as those for patients admitted to psychiatric units, and whenever a clinician tries to access them, an alert comes up asking if the clinician really intends to see the chart. P5 also indicated there were alerts for medication errors, accessing incorrect records, and alerts to give medications, adding frustration for clinicians with so many alerts. P5 noted this affected user acceptance and ease of use with the amount of effort. The statements by P5 are directly aligned with the TAM. Fishbein and Ajzen (1975) and Davis (1989) indicated in the literature review the TAM was superior in use to determine user acceptance and effort with EMR technology. In the literature review Davis (1989) further acknowledged that the TAM is a model used to explain the extent to which a person believes productivity increases through usefulness.

P6 noted one of the biggest improvements with the EMR is the system gives an alert to make sure you are in the correct chart. P6 supports P5 in indicating the safety

alerts however, P6 also stated the frustration all the alerts caused. P1 and P7 indicated the system is extremely complex in terms of getting the most out of productivity and the safety issues. P1 indicated the EMR for bar code scanning had not significantly decreased the errors. However, in contrast, P2 acknowledged the EMR had reduced medical errors means by sending out alerts through information sharing.

The findings indicated one of the biggest improvements of the EMR is the alerts and prompts to inform clinicians about patient safety. However, as indicated by P5 all these prompts created frustrations and added to the cumbersomeness of access or effort to use and accept the EMR. Clinicians found the EMR cumbersome with all the alerts. Health care business professionals could consider these strategies inorder to implement safety with the EMR.

Authority to request or disclose information. The theme that emerged from answering question 9 is aligned with the central research question. The findings indicated health care business professionals implemented controls such as restricted access, confidentiality, safeguards, and password verifications to promote confidentiality resulting in increased productivity and revenue.

P1 and P2 indicated staff continues to be restricted from accessing and viewing the records of patients unless there was a need to know (i.e., the staff was involved in that patient's care). With clinicians potentially having access to large numbers of records, the security of the information could potentially be compromised. In the literature review, Beard and Hamid (2014) are consistent with P1 indicating users have immediate access to patient records, with little restraint for unapproved access.

P3 indicated if a patient was being treated for addiction or mental health issues, the EMR system has a lock and requires the user to supply name, the reason for accessing the chart, and must receive permission before the user can access the file to preserve confidentiality. In contrast, despite the advances in technical capabilities, Gkoulalas-Divanis, Loukides, and Sun (2014) stated provisions for privacy and anonymity of patients are lacking in EMR systems used by organizations. However, Cooley and Smith (2013) endorsed P3, indicating with the subsequent increased use of EMR systems, there is a concern for providers, patients, and the government about privacy, confidentiality, safety, and security (Cooley & Smith, 2013).

Such concerns about confidentiality have led to safeguards and controls being put into place. P5 explained if a clinician did not have a reason to be in a particular chart, then the privacy officer would automatically receive an alert and there were consequences. P1 endorsed P5 by indicating there have been cases where people were fired because they accessed a record not compatible with their job. P3 confirmed P1 and P5's statements stating if there was a breach the privacy officer is automatically informed to maintain quality control. In the literature review, McGuire et al. (2013) endorsed P1, P3, and P5, indicating that to avoid an adverse effect on safety organizations should continuously monitor how the staff uses the EMR.

P1 and P4 indicated accessing the EMR came with a higher level of verification since clinicians need to create a password with a certain level of difficulty that would be more difficult for someone to guess. P5 confirmed P1 and P4's statements but added the

clinician often gets reminders to change their password, which becomes cumbersome and adds frustration.

P2 indicated a potential issue could be unintended breaches in confidentiality, such as when someone is walking by and glances at the screen, recognizing the patient's name and why the patient was in the hospital. In the literature review, aligned with P2, Meslin et al. (2013) specified when organizations design EMR systems and policies they need to balance risks such as ethical considerations. The hospital leaders may need to change their culture of primary risk management and adopt a new paradigm to manage ethical considerations.

The findings indicated there are HIPAA violations users know about and need to be aware of to protect the privacy and confidentiality of the patient. In the literature review, Anoshiravani et al. (2012) indicated because state laws differ, individual hospitals have addressed confidentiality issues independently of each other. Due to the fragmented nature of how the privacy laws support critical capabilities related to security and confidentiality, controls are often missing or randomly implemented (Anoshiravani et al., 2012). Therefore, health care business professionals implemented strategies to request or disclose information by means of restricted access, safeguards, password verifications, and regulations to meet compliance.

Findings Tied to Conceptual Framework

Tying the analysis of documents and participants' responses to the conceptual framework, I came to an understanding and recognition of how to sustain EMR implementation to increase productivity and revenue. Building on the conceptual

framework of this study, which was the TAM, the research findings of the first main theme indicated user acceptance and ease of use was extremely important as a strategy for EMR implementation to increase productivity and revenue.

The TAM is one strategy sufficient to encompass all the other strategies, including user acceptance and ease of use, to ensure success for implementation of the EMR. In addition, communication and exchange of information, and overcoming psychological issues are important. Psychological issues such as cultural change, acceptance, effort to use the EMR, and training determine the success of EMR use.

Studies by other researchers showed that the TAM is a useful predictor of behavioral intent to accept technology in health care. Moores (2012) developed a theory for technology in health care using TAM and stated work ethic is an important factor for technology acceptance. For example, training and minimizing effort are essential for beginners while knowledgeable users appreciated quality and value. The EMR provided the framework for providers to share medical information, provide better care, eliminate errors, reduce costs, improve productivity, and increase revenue. Dutot (2015) explained TAM was a model researchers use to understand how intention, use, and improved understanding affects IT efficacy.

Tying the findings to literature and business practice, the conceptual framework for this research was the TAM. Many of the responses made by the participants supported the TAM. The TAM applies to how users perceive usefulness and ease of use with the EMR technology (Abdekhoda et al., 2015; Kim et al., 2016). From another point of view, the TAM supports sustainability to implementation of the EMR, which identifies

psychological issues such as people being afraid to change, culture, ease of use, and loss of control. Within this study, I viewed the TAM framework as it relates to the correlation with the findings in order to achieve a better understanding of the strategies, efficiencies, and business processes that influence increased productivity and revenue. Moores (2012) noted how personnel perceives the use of the EMR technology results into increased performance and acceptance which increases productivity and revenue.

If business organizations understand how staff responds to EMR technology, they can focus on strategies such as training, change, and communication using the TAM. For example, Ketikidis et al. (2012) indicated training in the applicability of health IT systems may result in higher acceptance use and ease of use of EMR technology. In contrast, Abdekhoda et al. (2015) noted training had no significant effect on use or ease of use. However, Naqvi and Bashir (2015) indicated the highlighting assessment of one's skills for training purposes enhanced commitment, influencing user acceptance and behavior. Baillie et al. (2013) agreed with Naqvi and Bashir indicating skills, training, and abilities would seem relevant to address before deployment of the EMR. These factors such as acceptance, use, ease of use, influencing user acceptance, and behavior is aligned with the TAM which affects implementation and sustainment of the EMR.

Applications to Professional Practice

The research is paramount to increasing productivity and revenue in numerous ways. The main objective of the study was to explore participant's views about the strategies health care business professionals use to increase productivity and revenue. EMR implementation has been an increased concern for health care business

professionals (McCullough, Parente, & Town, 2016). The findings from this study are relative to the TAM (Dutot, 2015; Moores, 2012; Wu et al., 2016). Health care business professionals should understand what strategies affect increased productivity and revenue for an organization (Halas et al., 2015).

Health care business professionals can implement a strategic tool such as the EMR to achieve a desirable outcome (Lee, McCullough, & Town, 2013). The strategies identified by all participants in the first main theme, when implementing and sustaining EMR implementation, include user acceptance, cultural change, training, and communication. These strategies could assist health care business professionals to retain staff and sustain increased productivity and revenue (Cagle et al., 2012; Edson, 2012; Mahammed et al., 2012).

Addressing this change to achieve EMR implementation and understanding these strategies by business professionals may increase productivity and revenue (McAlearney, Hefner, Sieck, & Huerta, 2015). Hence, the application of implementing and sustaining the EMR presents an opportunity for leaders to invest in continuous training to sustain implementation through communication (P6) to increase user acceptance, and to improve performance, increasing productivity and revenue (Lee et al., 2013).

Health care business professionals can apply strategies found within the second and third themes on how to increase productivity and revenue through the medium of vendor and customization, continuing financial support, and feedback to sustain EMR implementation. Health care business professionals can implement strategies that are effective and discount strategies that are not effective. P2, P3, and P4 indicated knowing

the size and needs of an organization, integrating for interoperability, having technical support and upgrades drives how the organization leadership allocates resources to give financial support. This may lead to organizations experiencing a greater success in EMR implementation. For example, through empowering and engaging staff to give feedback on EMR applications, health care business professionals can leverage staff's expertise to adopt new ways to manage the implementation of the EMR.

When business leaders employ critical strategies such as sharing information, care coordination and data quality as outlined in the fourth and fifth themes, this leads to increased productivity and revenue for health care business professionals. Rashid and Yasin (2015) indicated information sharing and collaboration can tremendously enhance patient care and research. However, health care business professionals need to maintain a balance because of patient privacy.

Themes 2, 3, 4, and 5 all come under the umbrella of the first theme as an effective strategy to increase productivity and revenue. For example, P1 indicated organizations need to have a vision and communicate this vision to all staff. P3 indicated organizations should have clear objectives on what they want to achieve. P4 indicated organizations should evaluate and choose their strategies that work, for example, benchmarks or best practices, like visiting an organization where the EMR has been implemented and spending up to a year, if needed, to observe and understand implementation. P2 and P6 indicated organizations can then implement these strategies, for example, training, to achieve user acceptance and understand EMR use. P7 indicated organizations should evaluate and continuously improve through process improvements.

Best practice, as mentioned by P4, saves time and saves the trouble of making the same mistakes. Communication a key to successful EMR implementation as indicated by P4 is pivotal for success. P1 and P5 indicated continuous training should be reviewed by organizational leaders as an investment to fully understand the benefits of the EMR. P6 indicated continuous training as a strategy affects the organization more than the EMR. According to P6, the EMR changes patient care, but training can improve upon the opportunities and benefits that the EMR has to offer.

Implications for Social Change

The major strategies that surfaced in the study included user acceptance, change, training, and communication. These strategies may assist health care business professionals to increase productivity and revenue (Halas et al., 2015). The adaptation of these strategies may also affect social change to the community and society, and how health care is practiced. The implications for social change include storing data, protecting the environment, and safer health care.

The study serves as a positive step towards social change.The EMR stores more data and information that organizations can analyze to improve efficiency, reduce medical errors, improve health care, and manage population health by improving care, saving lives, and lowering costs (Lee et al., 2015). Moreover, organizations have a chance to use this tremendous amount of data to reduce the cost of health care and realize cost savings. For example, approximately 5% of patients account for 50% of all health care costs in the United States (Cohen & Yu, 2012). One way to reduce these costs is to

identify these high-risk patients and manage them more efficiently (Bates, Saria, Ohno-Machado, Shah, & Escobar, 2014).

With EMR implementation, throughout the United States organizations can save on paper, and protect the environment by entering their orders in the EMR system (Ries, 2014). These entries made by the clinician have the potential to reduce medical errors, improve legibility, and transmitted faster to other departments such as pharmacy resulting in substantial cost savings to the United States nationwide. One study estimated that from 2009 – 2015 approximately $133 billion could be realized in savings (Nuckols et al., 2015). The demand for less paper would decrease with more information inputted in the EMR system.

With EMR implementation patients can be tracked throughout their medical history. Health care business professionals can use this information to provide quality service and transparency. In addition, care provided results into safer care for patients. Patients can communicate with the health care providers electronically from home and can view their EMR showing their medications and health care information providing greater patient empowerment. Makam et al. (2014) stated the EHR fostered electronic communication with patients, other providers, and accessibility of medical records in a timely manner improving tracking for quality care. Likewise, Liebovitz (2013) noted the EMR is evolving into a tool to provide greater transparency, empowerment, and shared decision making for patient and provider.

Because the EMR is a tool that can be used to produce better quality and thorough incorporation of diverse specialties, the outcome is reduced costs, quality health care, and

paperwork for health care business professionals (Ries, 2014). Research could utilize these findings of the study to understand what strategies health care business professionals use to increase productivity and revenue.

Recommendations for Action

Health care business professionals may consider evaluating their strategies and compared to the first main theme, which are essential strategies to implement and sustaining EMR implementation. Health care business professionals need to begin understanding and implementing these strategies to sustain change, which includes acceptance, change, training, and communication to increase productivity and revenue (Halas et al., 2015). Health care business professionals may want to consider the strategic management process of developing a vision and establishing goals, allocate resources, before implementation and using alternative strategies such as assigning roles, and feedback (P1 – P7; David, 2013).

Health care business professionals must also pay attention to these findings and consider their budget and resource support for start-up, and on-going costs of the EMR. These costs could be reduced by engaging staff and empowering their organization with the vision they have aligned with their goals. By engaging staff, leaders can receive feedback and implement controls to improve implementation and acceptance of the EMR.

Findings from this study are important to health care business professionals and staff of organizations. Therefore, all staff may be interested in the findings of this study. Understanding the results of this study may be interesting and a benefit to all health care

business professionals, by analyzing, monitoring, and evaluating their strategies and adjusting processes to increase productivity and revenue.

I will disseminate the result of the study through conferences, scholarly journals, copies to individual health care professionals, and publishing articles in business journals. In addition, I may circulate the result of this study through consultation to other health care business professionals through training, and communicate these strategies to increase productivity and revenue.

Recommendations for Further Research

One limitation of this study was the sample size, as participants were from Orange County, New York and may not be representative of the whole state or nation. I recommend the need to conduct studies that encompass other geographical areas and use a larger organization. Second, I only interviewed health care business professionals, although other users such as insurance personnel and coders may also use the system. Third, the study was limited to those participants who agreed to participate in the study. There may be individuals who are in an experiential or structural position such that their responses would benefit the understanding of the overall case, but it is possible they might not have agreed to participate.

Future studies may be conducted and focus on different specialties to further explore their perspectives of EMR adoption. Although participants mentioned using the EMR organizations used fewer records and paper there was no evidence to show the quality of care or cost savings and compare to the EMR. I would also suggest conducting a study between a for-profit and a non-profit organization. A study of this type could

reveal the different costs for implementation. Finally, future studies could be conducted to explore how the EMR has affected an organization in different stages to understand if there is an increase in productivity or revenue.

Reflections

During the research process, my knowledge expanded on how to conduct doctoral level research. The level of attention to detail and writing style challenged and excited me. The amount of data overwhelmed me when I conducted the semistructured interviews. However, participants all seemed to confirm what each other were saying, although they were from all over Orange County, New York. Organizations should definitely, conduct their own research before implementing costly systems.

I had my own personal bias since I am not computer savvy. The findings were similar to what I have experienced and seen in staff in acceptance of information technology. I was able to recognize many challenges and similarities that others face when implementing a new data system. However, the findings reveal additional strategies like continuous training and communication as an important strategy for user acceptance to increase productivity and revenue in the workplace.

Summary and Study Conclusions

EMR implementation is essential to a hospital organization to meet meaningful use and not incur penalties as stipulated by the government (CMS, 2015), and to increase productivity and revenue is essential for health care business professionals (Guy et al., 2014). Health care business professionals need effective strategies to increase productivity and ROE. Therefore, the specific business problem is what strategies do

health care business professionals use to increase productivity and revenue. The purpose of this qualitative, single-case study was to explore EMR strategies health care business professionals used to increase productivity and revenue and answer the central research question: What EMR strategies do health care business professionals use to increase productivity and revenue? Seven participants from Orange County, New York in participated in semistructured interviews and a review of organizational documents and emails augmented participants' responses.

After collecting and analyzing data, five main themes emerged from the data including: (a) strategies to understand implementing and sustaining EMR implementation, (b) strategies leaders used to support EMR implementation, (c) strategies to help users accept the EMR, (d) communication and efficiency strategy for increasing productivity and revenue, and (e) strategies to help users manage safety. The findings indicated leaders need strategies such as user acceptance, cultural change, training, and workflow to increase productivity and revenue.

There are numerous conclusions to the research study. It is vital to state participants answered all open-ended questions during the interviews. In addition, to participant responses, I used meeting minutes, documents, employee handbook, and member checking to collect and triangulate the data with current literature to support my findings.

The initial findings indicated there are important strategies organizations need to implement to increase productivity and revenue (Abdekhoda et al., 2015; Halas et al., 2015; Kim et al., 2016). Furthermore, the findings indicate some strategies are more

predominant than others, for example, user acceptance, culture change, training, and communication. However, understanding strategies such as workflow, vendor and customization, support, roles and feedback helps the organization to follow through and support staff by means of the predominant strategies (Cresswell et al., 2013; Hossain et al., 2015; Lee et al., 2013).

Health care business professionals must consider other factors such as the TAM in order to implement the EMR (Kim et al., 2016; Egea & González, 2011). The TAM considers user acceptance and user effort may be enhanced by continuous training and education. Finally, strategies health care business professionals may consider that comes under the umbrella supporting EMR implementation are efficiency, sharing information, care coordination, and safety (Cooley & Smith, 2013; Edwards, 2012; Payne et al., 2013).

References

Abdekhoda, M., Ahmadi, M., Gohari, M., & Noruzi, A. (2015). The effects of organizational contextual factors on physicians' attitude toward adoption of Electronic Medical Records. *Journal of Biomedical Informatics*, *53*, 174-179. doi:10.1016/j.jbi.2014.10.008

Abramson, E., McGinnis, S., Moore, J., & Kaushal, R. (2014). A statewide assessment of electronic health record adoption and health information exchange among nursing homes. *Health Services Research*, *49*, 361-372. doi:10.1111/1475-6773.12137

Adler-Milstein, J., Ronchi, E., Cohen, G. R., Winn, L. A. P., & Jha, A. K. (2014). Benchmarking health IT among OECD countries: Better data for better policy. *Journal of the American Medical Informatics Association*, *21*, 111-116. doi:10.1116/amiajnl-2013-001710

Adler-Milstein, J., Salzberg, C., Franz, C., Orav, E. J., & Bates, D. W. (2013). The impact of electronic health records on ambulatory costs among medicaid beneficiaries. *Medicare & Medicaid Research Review*, *3*(2). doi:10.105600/mmrr.003.02a03

Ajami, S., & Bagheri-Tadi, T. (2013). Barriers for adopting electronic health records (EHRs) by physicians. *Acta Informatica Medica*, *21*, 129-134. doi:10.5455/aim.2013.21.129-134

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*, 179-211. doi:10.1016/0749-5978(91)90020-T

Alonso, J., Bartlett, S., Rose, M., Aaronson, N., Chaplin, J., Efficace, F., & Forrest, C.

(2013). The case for an international patient-reported outcomes measurement information system (PROMIS®) initiative. *Health and Quality of Life Outcomes*, *11*, 210. doi:10.1186/1477-7525-11-210

Alt, E., Díez-de-Castro, E., & Lloréns-Montes, F. (2015). Linking employee stakeholders to environmental performance: The role of proactive environmental strategies and shared vision. *Journal of Business Ethics*, *128*, 167-181. doi:10.1007/s10551-014-2095-x

Al-Yateem, N. (2012). The effect of interview recording on quality of data obtained: a methodological reflection. *Nurse Researcher*, *19*, 31-35. doi:10.7748/nr2012.07.19.4.31.e9222

Andrasik, M. P., Chandler, C., Powell, B., Humes, D., & Wakefield, S. (2014). Bridging the divide: HIV prevention research and black men who have sex with men. *American Journal of Public Health*, *104*, 708-714. doi:10.2105/AJPH.2013.301653

Anoshiravani, A., Gaskin, G. L., Groshek, M. R., Kuelbs, C., & Longhurst, C. A. (2012). Special requirements for electronic medical records in adolescent medicine. *Journal of Adolescent Health*, *51*, 409-414. doi:10.1016/j.jadohealth.2012.08.003

Atkins, S., Launiala, A., Kagaha, A., & Smith, H. (2012). Including mixed methods research in systematic reviews. Examples from qualitative syntheses in TB and malaria control. *BMC Medical Research Methdology*, *12*(1), 1-7. doi:10.1186/1471-2288-12-62

Babbott, S., Manwell, L. B., Brown, R., Montague, E., Williams, E., Schwartz, M., & Linzer, M. (2014). Electronic medical records and physician stress in primary care: Results from the memo Study. *Journal of the American Medical Informatics Association*, *21*, 100-106. doi:10.1136/amiajnl-2013-001875

Baillie, L., Chadwick, S., Mann, R., & Brook-Read, M. (2013). A survey of student nurses and midwives experiences of learning to use electronic health record systems in practice. *Nurse Education in Practice*, *13*, 437-441. doi:10.1016/j.nepr.2012.10.003

Bank, A. J., & Gage, R. M. (2015). Annual impact of scribes on physician productivity and revenue in a cardiology clinic. *ClinicoEconomics and Outcomes Research*, *7*, 489-495: doi:10.2147/CEORS89329

Bardhan, I. R., & Thouin, M. F. (2013). Health information technology and its impact on the quality and cost of healthcare delivery. *Decision Support Systems*, *55*, 438-449. doi:10.1016/j.dss.2012.10.003

Bardus, M., Blake, H., Lloyd, S., & Suzanne Suggs, L. (2014). Reasons for participating and not participating in a e-health workplace physical activity intervention: A qualitative analysis. *International Journal of Workplace Health Management*, *7*, 229-246. doi:10.1108/IWHM-11-2013-0040

Barnham, C. (2012). Separating methodologies. *International Journal of Market Research*, *54*, 736-738. doi:10.2501/IJMR-54-6-736-738

Basole, R. C., Bodner, D. A., & Rouse, W. B. (2013). Healthcare management through organizational simulation. *Decision Support Systems*, *55*, 552-563.

doi:10.1016/j.dss.2012.10.012

Bassi, J., Kushniruk, A. W., & Borycki, E. M. (2013). Application of the technological pedagogical content knowledge framework in integrating an educational EMR into health informatics education. *Studies in Health Technology and Informatics*, *183*, 49-53. doi:10.3233/978-1-61499-203-5-49

Bates, D. W., Saria, S., Ohno-Machado, L., Shah, A., & Escobar, G. (2014). Big data in health care: Using analytics to identify and manage high-risk and high-cost patients. *Health Affairs*, *33*, 1123-1131. doi:10.1377/hlthaff.2014.0041

Beail, N., & Williams, K. (2014). Using qualitative methods in research with people who have intellectual disabilities. *Journal of Applied Research In Intellectual Disabilities*, *27*, 85-96. doi:10.1111/jar.12088

Beard, H. R., & Hamid, K. S. (2014). Worth a thousand words: Integrating clinical photographs into an electronic medical record. *Healthcare*, *2*, 22-25. doi:10.1016/j.hjdsi.2013.09.009

Becher, E. H., & Wieling, E. (2015). The intersections of culture and power in clinician and interpreter relationships: *A Qualitative Study*, *21*, 450-457. doi:10.1037/a0037535

Bekhet, A. K., & Zauszniewski, J. A. (2012). Methodological triangulation: An approach to understanding data. *Nurse Researcher*, *20*, 40-43. doi:10.7748/nr2012.11.20.2.40.c9442

Bell, K. (2013). Doing qualitative fieldwork in Cuba: Social research in politically sensitive locations. *International Journal of Social Research Methodology*, *16*,

109-124. doi:10.1080/13645579.2011.653217

Bengry-Howell, A., & Griffin, C. (2012). Negotiating access in ethnographic research with hard to reach young people: Establishing common ground or a process of methodological grooming? *International Journal of Social Research Methodology*, *15*, 403-416. doi:10.1080/13645579.2011.600115

Bird, P., Campbell-Hall, V., Kakuma, R. (2013). Cross-national qualitative research: The development and application of an analytic framework in the mental health and poverty project. *International Journal of Social Research Methodology*, *16*, 337-349. doi:10.1080/13645579.2012.709802.

Bishop, L. (2012). Using archived qualitative data for teaching: Practical and ethical considerations. *International Journal of Social Research Methodology*, *15*, 341-350. doi:10.1080/13645579.2012.688335

Booth, A., Carroll, C., llott, I., Low, L. L., & Cooper, K. (2013). Desperately seeking dissonance identifying the disconfirming case in qualitative evidence synthesis. *Qualitative Health Research*, *23*, 126-141. doi:10.1177/1049732312466295

Borrego, M., Foster, M. J., & Froyd, J. E. (2014). Systematic literature reviews in engineering education and other developing interdisciplinary fields. *Journal of Engineering Education*, *103*, 45-76. doi:10.1002/jee.20038

Bosio, A. C., & Graffigna, G. (2012). Issue-based research and process methodology: Reflections on a postgraduate master's programme in qualitative methods. *Psychology Learning and Teaching*, *11*, 52-59. doi:10.2304/plat.2012.11.1.52

Boswell, R. A. (2013). Implementing electronic health records: Implications for HR professionals. *Strategic HR Review*, *12*, 262-268. doi:10.1108/SHR-08-2012-0010

Bowen, G. A. (2009). Supporting a grounded theory with an audit trail: An illustration. *International Journal of Social Research Methodology*, *12*, 305-316. doi:10.1080/13645570802156196

Brakewood, B., & Poldrack, R. A. (2013). The ethics of secondary data analysis: Considering the application of Belmont principles to the sharing of neuroimaging data. *Neuroimage*, *82*, 671-676. doi:10.1016/j.neuroimage.2013.02.040

Brewster, L. (2014). The public library as therapeutic landscape: A qualitative case study. *Health & Place*, *26*, 94-99.doi:10.1016/j.healthplace.2013.12.015

Brooks, C. L., & Erickson, L. K. (2012). What is the solution for clinical nurse educators and the electronic medical record? *Teaching and Learning in Nursing*, *7*, 129-132. doi:10.1016/j.teln.2012.06.003

Brooks, J. S., & Normore, A. (2015). Qualitative research and educational leadership: essential dynamics to consider when designing and conducting studies. *International Journal of Educational Management*, *29*, 798-806 doi:10.1108/IJEM-06-2015-0083

Bruen, B. K., Ku, L., Burke, M. F., & Buntin, M. B. (2011). More than four in five office-based physicians could qualify for federal electronic health record incentives. *Health Affairs*, *30*, 472-480. doi:10.1377/hlthaff.2010.0932

Buchanan, W. L. (2013). *Exploring sustainability: The key to corporate profitability in*

the 21st century (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (UMI No. 3604426)

Bullough, A., Sully De Luque, M., Abdelzaher, D., & Heim., W. (2015). Developing women leaders through entrepreneurship education and training. *The Academy of Management Perspectives*, *29*, 250-270. doi:10.5465/amp.2012.0169

Burchett, H. E., Dobrow, M. J., Lavis, J. N., & Mayhew, S. H. (2013). The applicability and transferability of public health research from one setting to another: A survey of maternal health researchers. *Global Health Promotion*, *20*, 16-24. doi:10.1177/1757975913476904

Burns, L. R., Bradley, E. H., Weiner, B. J., & Shortell, S. M. (2012). *Shortell and Kaluzny's health care management: Organization*, *design*, *and behavior* (6th ed.). Clifton Park, NY: Delmar/Cengage Learning.

Burns, E., Fenwick, J., Schmied, V., & Sheehan, A. (2012). Reflexivity in midwifery research: The insider/outsider debate. *Midwifery*, *28*, 52-60. doi:10.1016/j.midw.2010.10.018

Burwell, S. M. (2015). Setting value-based payment goals—HHS efforts to improve US health care. *The New England Journal of Medicine*, *372*, 897-899. doi:10.1056/NEJMp1500445

Cagle, J. G., Rokoske, F. S., Durham, D., Schenck, A. P., Spence, C., & Hanson, L. C. (2012). Use of electronic documentation for quality improvement in hospice. *American Journal of Medical Quality*, *27*, 282-290. doi:10.1177/1062860611425103

Calman, N., Hauser, D., Lurio, J., Wu, W. Y., & Pichardo, M. (2012). Strengthening public health and primary care collaboration through electronic health records. *American Journal of Public Health*, *102*, 13-18. doi:10.2105/AJPH.2012.301000

Castelli, L., Carraro, L., Pavan, G., Murelli, E., & Carraro, A. (2012). The power of the unsaid: The influence of nonverbal cues on implicit attitudes. *Journal of Applied Social Psychology*, *42*, 1376-1393. doi:10.1111/j.1559-1816.2012.00903.x

Centers for Medicare & Medicaid Services (CMS), (2012a). *EHR incentive programs overview*. Retrieved from: http://www.cms.gov.EHR incentive programs.

Centers for Medicare & Medicaid Services (CMS), (2013). *Readines for meaningful use of HIT and patient centered medical human recognition survey results*. Retrieved from http://cms.gov

Centers for Medicare & Medicaid Services (CMS), (2014). 2014 *Definition of stage 1 meaningful use*. Retrieved from http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/Meaningful_Use.html

Centers for Medicare and Medicaid Services (CMS), (2015). Medicare and Medicaid EHR incentive program basics. Retrieved from https://www.cms.gov/regulations-and-guidance/legislation

Chan, Z. C., Fung, Y. L., & Chien, W. T. (2013). Bracketing in phenomenology: Only undertaken in the data collection and analysis process. *The Qualitative Report*, *18* (30), 1-9. Retrieved from http://nsuworks.nova.edu/tqr/vol18/iss30/1

Chandra, A., & Skinner, J. (2012). Technology growth and expenditure growth in healthcare. *Journal of Economic Literature*, *50*, 645-680.

doi:10.1257/jel.50.3.645

Chapman, H. M., & Clucas, C. (2014). Student nurses' views on respect towards service users. An interpretative phenomenological study. *Nurse Education Today*, *34*, 474-479. doi:10.1016/j.nedt.2013.05.012

Chathoth, P., Altinay, L., Harrington, R. J., Okumus, F., & Chan, E. S. (2013). Co-production versus co-creation: A process based continuum in the hotel service context. *International Journal of Hospitality Management*, *32*, 11-20. doi:10.1016/j.ijhm.2012.03.009

Chew, J., & Entrekin, L. (2011). Retention management of critical (core) employees–A challenging issue confronting organisations in the 21st century. *International Business & Economics Research Journal*, *3*, 19-36. doi:10.19030/iber.v312.3660

Chikweche, T., & Fletcher, R. (2012). Undertaking research at the bottom of the pyramid using qualitative methods: From theoretical considerations to practical realities. *Qualitative Market Research*, *15*, 242-267. doi:10.1108/13522751211231978

Cho, K. W., Kim, S. M., An, C. H., & Chae, Y. M. (2015). Diffusion of electronic medical record based public hospital information systems. *Healthcare Informatics Research*, *21*, 175-183. doi:10.10.4258/hir.2015.21.3.175

Clearly, M., Horsfall, J., & Hayter, M. (2014). Data collection and sampling in qualitative research: Does size mater? *Journal of Advanced Nursing*, *70*, 473-475. doi:10.1111/jan.12163

Cohen, S. & Yu, W. (2012). U. S. Department of healthcare research and quality. *The Concentration Agency for Healthcare Research and Quality*. Retrieved from www.meps.ahrq.gov/meps web/data_files/publications/sr354

Coenen, M., Stamm, T. A., Stucki, G., & Cieza, A. (2012). Individual interviews and focus groups in patients with rheumatoid arthritis: A comparison of two qualitative methods. *Quality of Life Research*, *21*, 359-370. doi:10.1007/s1136-011-9943-2

Collier, R. (2014). Electronic medical records: preparing for the inevitable crash. *CMAJ*, *186*(7), 493. doi:10.1503/cmaj.109-4719

Colombo, M. G., Piva, E., & Rossi-Lamastra, C. (2014). The sensitivity of high-tech entrepreneurial ventures' employment to a sales contraction in a negative growth scenario: The moderating role of venture capital financing. *Managerial & Decision Economics*, *35*, 73-87. doi:10.1002/mde.2645

Cooley, J., & Smith, S. (2013). Privacy-preserving screen capture: Towards closing the loop for health IT usability. *Journal of Biomedical Informatics*, *46*, 721-733. doi:10.1016/j.jbi.2013.05.007

Cope, D. G. (2014, January). Methods and meanings: Credibility and trustworthiness of qualitative research. *Oncology Nursing Forum 41*, 89-91. doi:10.1188/14.ONF.89-91

Covell, C. L., Sidani, S., & Ritchie, J. A. (2012). Does the sequence of data collection influence participants' responses to closed and open-ended questions? A methodological study. *International Journal of Nursing Studies*, *49*, 664-671.

doi:10.1016/j.ijnurstu.2011.12.002

Cox, R. D. (2012). Teaching qualitative research to practitioner researchers. *Theory into Practice*, *51*, 129-136. doi:10.1080/00405841.2012.662868

Cresswell, K. M., Bates, D. W., & Sheikh, A. (2013). Ten key considerations for the successful implementation and adoption of large-scale health information technology. *Journal of the American Medical Informatics Association*, *20*, e9-e13. doi:10.1136/amiajnl-2013-001684

Cresswell, K., & Sheikh, A. (2013). Organizational issues in the implementation and adoption of health information technology innovations: an interpretative review. *International Journal of Medical Informatics*, *82*, e73-e86. doi:10.1016/j.ijmedinf.2012.10.007

Cusack, C. M., Hripcsak, G., Bloomrosen, M., Rosenbloom, S. T., Weaver, C. A., Wright, A., & Mamykina, L. (2013). The future state of clinical data capture and documentation: A report from AMIA's 2011 Policy Meeting. *Journal of the American Medical Informatics Association*, *20*, 134-140. doi:10.1136/amiajnl-2012-001093

Cutler, D. M., & Sahni, N. R. (2012). If slow growth of healthcare spending growth persists projection may be off by $770 billion. *Health Affairs*, *5*, 841-850. doi:10.1377/hlthaff.2012.0289

Dailey, S. L., & Browning, L. (2014). Retelling stories in organizations: Understanding the functions of narrative repetition. *Academy of Management Review*, *39*, 22-43. doi:10.5465/amr.2011.0329

Darawsheh, W. (2014). Reflexivity in research: Promoting rigor, reliability and validity in qualitative research. *International Journal of Therapy & Rehabilitation*, *21*, 560-568. doi:10.12968/ijtr.2014.21.12.560

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*, 319-340. doi:10.2307/249008

Davis, F. D. (1993). User acceptance of information technology: system characteristics, user perceptions and behavioral impacts. *International Journal of Man-Machine Studies*, *38*, 475-487. doi:10.1006/imms.1993.1022

Davis, F. D.; Bagozzi, R. P.; & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, *35*, 982-1003. doi.10.1287/mnsc.35.8.982

de Mattos, C. A., & Barbin Laurindo, F. J. (2015). Collaborative platforms for supply chain integration: Trajectory, assimilation of platforms and results. *Journal of Technology Management & Innovation*, *10*, 79-92. doi:10.4067/s0718-27242015000200006

DesRoches, C. M., Charles, D., Furukawa, M. F., Joshi, M. S., Kralovec, P., Mostashari, F., & Jha, A. K. (2013). Adoption of electronic health records grows rapidly, but fewer than half of US hospitals had at least a basic system in 2012. *Health Affairs*, *10*-1377. doi:10.1377/hlthaff.2013.0308

Dhanireddy, S., Walker, J., Reisch, L., Oster, N., Delbanco, T., & Elmore, J. G. (2014). The urban underserved: attitudes towards gaining full access to electronic medical records. *Health Expectations*, *17*, 724-732. doi:10.1111/j.1369-

7625.2012.00799.x

Dolezal, C., Marhefka, S. L., Santamaria, E. K., Leu, C., Brackis-Cott, E., & Mellins, C. A. (2012). A comparison of audio computer assisted self interviews to face-to-face interviews of sexual behavior among perinatally HIVexposed youth. *Archives of Sexual Behavior*, *41*, 401-410. doi:10.1007/s10508-011-9769-6

Dupin, C. M., Larsson, M., Dariel, O., Debout, C., & Rothan-Tondeur, M. (2015). Conceptions of learning research: Variations amongst French and Swedish nurses. A phenomenographic study. *Nurse Education Today*, *35*, 73-79. doi:10.1016/j.nedt.2014.06.003

Dutot, V. (2015). Factors influencing near field communication (NFC) adoption: An extended TAM approach. *Journal of High Technology Management Research*, *26*, 45-57. doi:10.1016/j.hitech.2015.04.005

Edson, M. C. (2012). A complex adaptive systems view of resilience in a project team. *Systems Research and Behavioral Science*, *29*, 499-516. doi:10.1002/sres.2153

Edwards, C. (2012). Nursing leaders serving as a foundation for the electronic medical record. *Journal of Trauma Nursing*, *19*, 111-114. doi:10.1097/JTN.0b013e31825629db

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis a focus on trustworthiness. *SAGE Ope*n, *4*(1), 1-10. doi:10.1177/2158244014522633.

Erlingsson, C., & Brysiewicz, P. (2013). Orientation among multiple truths: An introduction to qualitative research. *African Journal of Emergency Medicine*, *3*,

92-99.doi:10.1016/j.afjem.2012.04.005

Ferrier, G., Leleu, H., Moises, J., & Valdmanis, V. (2013). The Focus Efficiency of U.S. Hospitals. *Atlantic Economic Journal*, *41*, 241-263. doi:10.1007/s11293-013-9385-z

Fischer, C. T. (2009). Bracketing in qualitative research: Conceptual and practical matters. *Psychotherapy Research*, *19*, 583-590. doi:10.1080/10503300902798375

Fishbein, M. A. (1967). *Attitude and the prediction of behavior*. *Readings in attitude theory and measurement*. New York, NY: Wiley

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior*: *An introduction to theory and research*. Reading, MA: Addison-Wesley.

Florea, L., Cheung, Y. H., & Herndon, N. C. (2013). For all good reasons: Role of values in organizational sustainability. *Journal of Business Ethics*, *114*, 393-408. doi:10.1007/s10551-012-1355-x

Fluk, L. R. (2015). Foregrounding the research log in information literacy instruction. *The Journal of Academic Librarianship*, *41*, 488-498. doi:10.1016/j.acalib.2015.06.010

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, *20*, 1408-1416. Retrieved from http://nsuworks.nova.edu/tqr/vol20/iss9/3

Galvin, R. (2014). How many interviews are enough? Do qualitative interviews in building energy consumption research produce reliable knowledge? *Journal of Building Engineering 1*, 2-12. doi:10.1016/j.jobe.2014.12.001

Gheorghiu, B., & Hagens, S. (2016). Measuring interoperable EHR adoption and maturity: A Canadian example. *BMC Medical Informatics and Decision Making*, *16*(1), 1. doi:10.1186/s12911-016-0247-X

Gibson, S., Benson, O., & Brand, S. L. (2012). Talking about suicide: Confidentiality and anonymity in qualitative research. *Nursing Ethics*, *20*, 18-29. doi:10.1177/0969733012452684

Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal*, *204*, 291-295. doi:10.1038/bdj.2008.192

Gilmer, T., O'Connor, P., Sperl-Hillen, J., Rush, W., Johnson, P., Amundson, G., & Ekstrom, H. (2012). Cost-effectiveness of an electronic medical record based clinical decision support system. *Health Services Research*, *47*, 2137-2158. doi:10.1111/j.1475-6773.2012.01427.x

Ginsberg, F., & Sinacore, A. L. (2013). Counseling Jewish women. A phenomenological study. *Journal of Counseling and Development*, *91*, 131-139. doi:10.1002/j.1556-6676.2013.00081.x

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research notes on the Gioia methodology. *Organizational Research Methods*, *16*, 15-31. doi:10.1177/1094428112452151

Gkoulalas-Divanis, A., Loukides, G., & Sun, J. (2014). Publishing data from electronic health records while preserving privacy: A survey of algorithms. *Journal of Biomedical Informatics*, *50*, 4-19. doi:10.1016/j.jbi.2014.06.002

Goldsack, J. C., & Robinson, E. J. (2014). The impact of health information technology on staffing. *The Journal of Nursing Administration*, *44*, 117-120. doi:10.1097/NNA.0000000000000035

Goldstein, M. M. (2014). Health information privacy and health information technology in the US correctional setting. *American Journal of Public Health*, *104*, 803-809. doi:10.2105/AJPH.2013.301845

Górny, A. (2014). Influence of corporate social responsibility (CSR) on safety culture. *Management*, *18*, 43-57. doi:10.2478/manment-2014-0004

Gossman, M., & Miller, J. H. (2012). The third person in the room: Recording the counselling interview for the purpose of counsellor training – barrier to relationship building or effective tool for professional development?. *Counselling & Psychotherapy Research*, *12*, 25-34. doi:10.1080/14733145.2011.582649

Grabenbauer, L., Skinner, A., & Windle, J. (2011). Electronic health record adoption—maybe it's not about the money: physician super-users, electronic health records and patient care. *Applied Clinical Informatics*, *2*, 460-471. doi:10.4388/aci-2011-05-RA-0033

Gresham, R. (2012). Trusting relationships: A key for cross-cultural engagement. *Journal of Higher Education Policy & Management*, *34*, 491-501. doi:10.1080/1360080X.2012.715998

Grossoehme, D. H. (2014). Overview of qualitative research. *Journal of Health Care Chaplaincy*, *20*, 109-122. doi:10.1080/08854726.2014.925660

Grove, S. K., Burns, N., & Gray, J. R. (2013). *The Practice of Nursing Research*

(7th ed.). St. Louis, MO: Elsevier.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, *18*, 59-82. doi:10.1177/1525822x05279903

Guy, P., Raymond, L., De Guinea, A., Poba-Nzaou, P., Turdel, M., Marsan, J., & Micheneau, T. (2014). Barriers to organizational adoption of EMR systems in family physician practices: A mixed-methods study in Canada. *International Journal of Medical Informatics*, *83*, 548-558. doi:10.1016/j.ijmedinf.2014.06.003

Halas, G., Singer, A., Styles, C., & Katz, A. (2015). New conceptual model of EMR implementation in interprofessional academic family medicine clinics. *Canadian Family Physician*, *61*, e232-e239. Retrieved from www.cfp.ca/content/61/5/e232.full.pdf

Hammoud, M. M., Margo, K., Christner, J. G., Fisher, J., Fischer, S. H., & Pangaro, L. N. (2012). Opportunities and challenges in integrating electronic health records into undergraduate medical education: A national survey of clerkship directors. *Teaching and Learning in Medicine*, *24*, 219-224. doi:10.1080/10401334.2012.692267

Hannan, T., & Brooks, P. (2012). Health workforce changes and the roles of information technology associated with these changes. The times they are a-changing. *Internal Medicine Journal*, *42*, 722-727. doi:10.1111/j.1445-5994.2012.02801.x

Harper, M., & Cole, P. (2012). Member checking: Can benefits be gained similar to

group therapy? *The Qualitative Report*, *17*, 510-517. Retrieved from http://www.nova.edu

Harrison, S. H., & Rouse, E. D. (2014). Let's dance! Elastic coordination in creative group work: A qualitative study of modern dancers. *Academy of Management Journal*, *57*, 1256-1283. doi:10.5465/amj.2012.0343

Hasanain, R. A., & Cooper, H. (2014). Solutions to overcome technical and social barriers to electronic health records implementation in Saudi public and private hospitals. *Journal of Health Informatics in Developing Countries*, *8*, 1. Retrieved from. www.jhidc.org

Hatami-Marbini, A., Tavana, M., Hajipour, V., Kangi, F., & Kazemi, A. (2013). An extended compromise ratio method for fuzzy group multi-attribute decision making with SWOT analysis. *Applied Soft Computing*, *13*, 3459-3472 doi:10.1016/j.asoc.2013.04.016

Heeney, C. (2012). Breaching the contract? Privacy and the UK census. *The Information Society*, *28*, 316-328. doi:10.1080/01972243.2012.709479

Henriksen, R. C., Polonyi, M. A., Bornsheuer-Boswell, J. N., Greger, R. G., & Watts, R. E. (2015). Counseling students' perceptions of religious/spiritual counseling training: A qualitative study. *Journal of Counseling & Development*, *93*, 59-69. doi:10.1002/j.1556-6676.00181.x.

Hewitt, R. T. (2012). Valuing IT human capital. *IT Professional*, *14*, 58-60. doi:10.1109/MITP.2012.17

Higgins, T. L., Kudler, N. R., Lindenauer, P., Brown, P., Gentes, J., & Nelson, H. (2012).

How quickly do clinicians adopt EMR notes?. *Physician Executive*, *38*, 52-58. Retrieved from http://www.acpe.org/publications/pej.aspx

Hoare, Z., & Hoe, J. (2013). Understanding quantitative research: Part 2. *Nursing Standard*, *27*, 48-55. doi:10.7748/ns2013.01.27.18.48.c9485

Hoflund, A. B. (2013). Exploring the use of grounded theory as a methodological approach to examine the black box of network leadership in the national quality forum. *Journal of Health and Human Services Administration*, *35*, 469-504. Retrieved from: http://www.jstor.org/stable/23621759

Hornstein, H. A. (2015). The integration of project management and organizational change management is now a necessity. *International Journal of Project Management*, *33*, 291-298. doi:10.1016/j.ijproman.2014.08.005

Horsky, J., Schiff, G. D., Johnston, D., Mercincavage, L., Bell, D., & Middleton, B. (2012). Interface design principles for usable decision support: A targeted review of best practices for clinical prescribing interventions. *Journal of Biomedical Informatics*, *45*, 1202-1216. doi:10.1016/j.jbi.2012.09.002

Hossain, R., Rasel, M. K., & Talapatra, S. (2015). Increasing productivity through facility layout improvement using systematic layout planning pattern theory. *Global Journal of Researches In Engineering*, *14*(7). Retrieved from www.engineeringresearch.org

Houghton, C., Casey, D., Shaw, D., & Murphy, K. (2013). Rigor in qualitative case-study research. *Nurse Researcher*, *20*, 12-17.

doi:10.7748/nr2013.03.20.4.12.e326

Hsiao, C. J., Jha, A. K., King, J., Patel, V., Furukawa, M. F., & Mostashari, F. (2013). Office-based physicians are responding to incentives and assistance by adopting and using electronic health records. *Health Affairs*, *10*-1377. doi:10.1377/hlthaff.2013.0323

Hu, P. J., Chau, P. Y., Sheng, O. R. L., & Tam, K. Y. (1999). Examining the technology acceptance model using physician acceptance of telemedicine technology. *Journal of Management Information Systems*, *16*, 91-112. doi:10.80/07421222.1999.11518247

Huff, A., Chumbler, N., Cherry, C. O. B., Hill, M., & Veguilla, V. (2015). An in-depth mixed-methods approach to Ryan White HIV/AIDS care program comprehensive needs assessment from the Northeast Georgia public health district: The significance of patient privacy, psychological health, and social stigma to care. *Evaluation and Program Planning*, *49*, 137-148. doi:10.1016/j.evalprogplan.2015.01.003

Hynes, G. E. (2012). Improving employees' interpersonal communication competencies: A qualitative study. *Business Communication Quarterly*, *75*, 466-475. doi:10.1177/1080569912458965

Hyppönen, H., Saranto, K., Vuokko, R., Mäkelä-Bengs, P., Doupi, P., Lindqvist, M., & Mäkelä, M. (2014). Impacts of structuring the electronic health record: a systematic review protocol and results of previous reviews. *International Journal of Medical Informatics*, *83*, 159-169. doi:10.1016/j.ijmedinf.2013.11.006

Iglehart, J. K. (2013). Disruptive technology roils the healthcare landscape. *Health Affairs*, *32*, 1342. doi:10.1377/hlthaff.2013.0744

Ingebrigtsen, T., Georgiou, A., Clay-Williams, R., Magrabi, F., Hordern, A., Prgomet, M., & Braithwaite, J. (2014). The impact of clinical leadership on health information technology adoption: Systematic review. *International Journal of Medical Informatics*, *83*, 393-405. doi:10.1016/j.ijmedinf.2014.02.005

Iqbal, U., Ho, C. H., Li, Y. C. J., Nguyen, P. A., Jian, W. S., & Wen, H. C. (2013). The relationship between usage intention and adoption of electronic health records at primary care clinics. *Computer Methods and Programs in Biomedicine*, *112*, 731-737. doi:10.1016/j.cmpb.2013.09.001

Irvine, A., Drew, P., & Sainsbury, R. (2013). Am I not answering your questions properly? Clarification, adequacy and responsiveness in semi-structured telephone and face-to-face interviews. *Qualitative Research*, *13*, 87-106. doi:10.1177/1468794112439086

Irwin, S. (2013). Qualitative secondary data analysis: ethics, epistemology and context. *Progress in Development Studies*, *13*, 295-306. doi:10.1177/1464993413490479

Jafari, A., Dunnett, S., Hamilton, K., & Downey, H. (2013). Exploring researcher vulnerability: Contexts, complications, and conceptualization. *Journal of Marketing Management*, *29*, 1182-1200. doi:10.1080/0267257X.2013.798677

Jarvis, B., Johnson, T., Butler, P., O'Shaughnessy, K., Fullam, F., Tran, L., & Gupta, R. (2013). Assessing the impact of electronic health records as an enabler of hospital quality and patient satisfaction. *Academic Medicine*, *88*, 1471-1477.

doi:10.1097/ACM.0b013e3182a36cab

Jost, T. S. (2012). Eight decades of discouragement: The history of health care cost containment in the USA. *Forum for Health Economics & Policy*, *15*, 53-82. doi:10.1515/fhep-2012-0009

Kaczynski, D., Salmona, M., & Smith, T. (2014). Qualitative research in finance. *Australian Journal of Management*, *39*, 127-135. doi:10.1177/0312896212469611

Kasim, A., & Al-Gahuri, H. A. (2015). Overcoming challenges in qualitative inquiry within a conservative society. *Tourism Management*, *50*, 124-129. doi:10.1016/j.tourman.2015.01.004

Kavoura, A., & Bitsani, E. (2014). Methodological considerations for qualitative communication research. *Procedia-Social and Behavioral Sciences*, *147*, 544-5 49. doi:10.1016/j.sbspro.2014.07.156

Kawamoto, K., Hongsermeier, T., Wright, A., Lewis, J., Bell, D. S., & Middleton, B. (2013). Key principles for a national clinical decision support knowledge sharing framework: synthesis of insights from leading subject matter experts. *Journal of American Medical Informatics Association*, *20*, 199-207. doi:10.1136/amiajnl-2012-000887

Kellermann, A. L., & Jones, S. S. (2013). What it will take to achieve the as-yet-unfulfilled promises of health information technology. *Health Affairs*, *32*, 63-68. doi:10.1377/hlthaff.2012.0693

Ketikidis, P., Dimitrovski, T., Lazuras, L., & Bath, P. A. (2012). Acceptance of health information technology in health professionals: an application of the revised

technology acceptance model. *Health Informatics Journal*, *18*, 124-134. doi:10.1177/1460458211435425

Khosla, N., Marsteller, J. A., & Holtgrave, D. R. (2013). The use of memoranda of understanding in fostering inter-agency collaboration: A qualitative study of health services agencies serving vulnerable populations in Baltimore, USA. *Health Services Management Research*, *26*, 126-136. doi:10.1177/0951484814525599

Kiah, M. L. M., Haiqi, A., Zaidan, B. B., & Zaidan, A. A. (2014). Open source EMR software: Profiling, insights and hands-on analysis. *Computer Methods and Programs in Biomedicine*, *117*, 360-382. doi:10.1016/j.cmpb.2014.07.002

Kierkegaard, P. (2013). eHealth in Denmark: A case study. *Journal of Medical Systems*, *37*(6), 1-10. doi:10.1007/s10916-013-9991-y

Kim, S., Lee, K. H., Hwang, H., & Yoo, S. (2016). Analysis of the factors influencing healthcare professionals' adoption of mobile electronic medical record (EMR) using the unified theory of acceptance and use of technology (UTAUT) in a tertiary hospital. *BMC Medical Informatics and Decision Making*, *16*(1), 1. doi:10.1186/s12911-016-0249-8

King, B. J., Gilmore-Bykovskyi, A. L., Roiland, R. A., Polnaszek, B. E., Bowers, B.J., & Kind, A. H. (2013). The consequences of poor communication during transitions from hospital to skilled nursing facility: A qualitative study. *Journal of The American Geriatrics Society*, *61*, 1095-1102. doi:10.1111/jgs.12328

King, J., Patel, V., Jamoon, E., & Furukawa, M. (2014). Clinical benefits of electronic health record use: national findings. *Health Services Research*, *49*, 392-404.

doi:10.1111/1475-6773.12135

Kirkendall, E. S., Goldenhar, L. M., Simon, J. L., Wheeler, D. S., & Spooner, A. S. (2013). Transitioning form a computerized provider order entry and paper documentation system to an electronic health record. Expectations and experiences of hospital staff. *International Journal of Medical Informatics*, *82*, 1037-1045. doi:10.1016/j.ijmedinf.2013.08.005

Klompas, M., & McVetta, J., Lazarus, R., Eggleston, E., Haney, G., Kruskal, B. A., … & Lee, M. (2012). Integrating clinical practice and public health surveillance using electronic medical record systems. *American Journal of Preventive Medicine*, *42*, 154-162. doi.10.1016/j.amepre.04.005

Koc, E., & Boz, H. (2014). Triangulation in tourism research: A bibliometric study of top three tourism journals. *Tourism Management Perspectives*, *12*, 9-14. doi:10.1016/j.tmp.2014.06.003

Koch, L. C., Niesz, T., & McCarthy, H. (2014). Understanding and reporting qualitative research: An analytical review and recommendations for submitting authors. *Rehabilitation Counseling Bulletin*, *57*, 131-143. doi:10.1177/0034355213502549

Kruse, C. S., DeShazo, J., Kim, F., & Fulton, L. (2014). Factors associated with adoption of health information technology: A conceptual model based on a systematic review. *JMIR Medical Informatics*, *2*(1) e9. doi:10.2196/medinform.3106

Kruse, C. S., Mileski, M., Alaytsev, V., Carol, E., & Williams, A. (2015). Adoption factors associated with electronic health record among long-term care facilities: A systematic review. *BMJ Open, 5*(1), e006615. doi:10.1136/bmjopen-2014-006615

Kumar, S., & Bauer, K. (2011). The business case for implementing electronic health records in primary care settings in the United States. *Journal of Revenue & Pricing Management*, *10*, 119-131. doi:10.1057/rpm.2009.14

Kwasnicka, D., Dombrowski, S. U., White, M., & Sniehotta, F. F. (2015). Data-prompted interviews: Using individual ecological data to stimulate narratives and explore meanings. *Health Psychology*, *34*, 1191-1194. doi:10.1037/hea0000234

Lau, F., Price, M., Boyd, J., Partridge, C., Bell, H., & Raworth, R. (2012). Impact of electronic medical record on physician practice in office settings: a systematic review. *BMC Medical and Informatics and Decision Making*, *12*(1), 1. doi:10.1186/1472-6947-12-10

Lee, H., Chapiro, J., Schernthaner, R., Duran, R., Wang, Z., Gorodetski, B., & Lin, M. (2015). How I do it: A practical database management system to assist clinical research teams with data collection, organization, and reporting. *Academic Radiology*, *22*, 527-533. doi:1016/j.acra.2014.12.002

Lee, J., Kuo, Y., & Goodwin, J. (2013). The effect of electronic medical record adoption on outcomes in US hospitals. *BMC Health Services Research*, *13*(1), 1. doi:10.1186/1472-6963-13-39.

Lee, C. C., Lin, S. P., Yang, S. L., Tsou, M. Y., & Chang, K. Y. (2013). Evaluating the influence of perceived organizational learning capability on user acceptance of information technology among operating room nurse staff. *Acta Anaesthesiologica Taiwanica*, *51*, 22-27. doi:10.1016/j.aat.2013.03.013

Lee, J., McCullough, J. S., & Town, R. J. (2013). The impact of health information

technology on hospital productivity. *The Rand Journal of Economics*, *44*, 545-568. doi:10.1111/1756-2171.12030

Lee, W., Xiong, L., & Hu, C. (2012). The effect of Facebook users' arousal and valence on intention to go to the festival. Applying an extension of the technology acceptance model. *International Journal of Hospitality Management*, *31*, 819-827. doi:10.1016/j.ijhm.2011.09.018

Leppäkoski, T., & Paavilainen, E. (2012). Triangulation as a method to create a preliminary model to identify and intervene in intimate partner violence. *Applied Nursing Research*, *25*, 171-180. doi:10.1016/j.apnr.2011.03.002

Liberati, E. G., Gorli, M., Moja, L., Galuppo, L., Ripamonti, S., & Scaratti, G. (2015). Exploring the practice of patient centered care: the role of ethnography and reflexivity. *Social Science & Medicine*, *133*, 45-52. doi:10.1016/j.socscimed.2015.03.050

Liebovitz, D. (2013). Meaningful EHR attributes for an era of accountability, transparency, shared decision making, and value assessment. *Journal of Legal Medicine*, *34*, 43-53. doi:10.1080/01947648.2013.768145

Lin, C. W., Abdul, S. S., Clinciu, D. L., Scholl, J., Jin, X., Lu, H., & Li, Y. C. (2014). Empowering village doctors and enhancing rural healthcare using cloud computing in a rural area of mainland China. *Computer Methods and Programs in Biomedicine*, *113*, 585-592. doi:10.1016/j.cmpb.2013.10.005

Lin, J., Jiao, T., Biskupiak, J. E., & McAdam-Marx, C. (2013). Application of electronic medical record data for health outcomes research: A review of recent literature.

Expert Review of Pharmacoeconomics and Outcomes Research, *13*, 191-200. doi:10.1586/erp.13.7

Lin, S., Khoo, J., & Schillinger, E. (2016). Next big thing: integrating medical scribes into academic medical centres. *BMJ Simulation and Technology Enhanced Learning*, *2*, 27-27. doi:10.1136/bmjstel-2015-000054

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Newburg Park, CA: Sage Publications

Loiselle, G. g., Profetto-McGrath, J., Polit, D. F., & Beck, C. T. (2012). *Canadian essentials of Nursing Research*. Philadelphia, PA: Lippincott, Williams & Wilkins

Lowes, L., Eddy, D., Channon, S., McNamara, R., Robling, M., Gregory, J. W., & Depicted study team. (2015). The experience of living with type 1 diabetes and attending clinic from the perception of children, adolescents and carers: Analysis of qualitative data from the depicted study. *Journal of Pediatric Nursing*, *30*, 54-62. doi:10.1016/j.pedn.2014.09.006

Ma, C. C., Kuo, K. M., & Alexander, J. W. (2016). A survey-based study of factors that motivate nurses to protect the privacy of electronic medical records. *BMC Medical Informatics and Decision Making*, *16*(1), 1. doi:10.1186/s12911-016-0254-y

MaCartney, B. C. (2012). Teaching through an ethics of belonging, care and obligation as a critical approach to transforming education. *International Journal of Inclusive Education*, *16*, 171-183. doi:10.1080/13603111003686218

Makam, A. N., Lanham, H. J., Batchelor, K., Moran, B., Howell Stampley, T., Kirk, L.,

& Halm, E. A. (2014). The good, the bad, and the early adopters: providers attitudes about a common, commercial EHR. *Journal of Evaluation in Clinical Practice*, *20*, 36-42. doi:10.111/jep.12076

Malagon-Maldonado, G. (2014). Qualitative research in health design. *Health Environments Research and Design*, *7*, 120-134. doi:10.1177/193758671400700411

Mandi, K. D., Khorasani, R., & Kohane, S. (2012). Meaningful use of electronic health records. *Health Affairs*, *31*, 1365-1366. doi:10.1377/hlthaff.2012.0473

Manthorpe, J., & Samsi, K. (2013). Inherently risky?: Personal budgets for people with dementia and the risks of financial abuse: Findings from an interview-based study with adult safeguarding coordinators. *British Journal of Social Work*, *43*, 889-903. doi:10.1093/bjsw/bcs023

Marcos, M., Maldonado, J. A., Martínez-Salvador, B., Boscá, D., & Robles, M. (2013). Interoperability of clinical decision-support systems and electronic health records using archetypes: a case study in clinical trial eligibility. *Journal of Biomedical Informatics*, *46*, 676-689. doi:10.1016/j.jbi.2013.05.004.

Marmor, T., & Oberlander, J. (2012). From HMOs to ACOs: The quest for the holy grail in US health policy. *Journal of General Internal Medicine*, *27*, 1215-1218. doi:10.1007/s11606-012-2024-6

Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6th ed.). Thousand Oaks, CA: Sage Publications.

Marshall, B., Cardon, P., Poddar, A., & Fontenot, R. (2013). Does sample size matter in qualitative research?: A review of qualitative interviews in IS research. *Journal of Computer Information Systems*, *54*, 11-22. doi:10.1080/08874417.2013.11645667

Martin, S., & Bristowe, K. (2015). Last officers: Nurses experiences of the process and their views about involving significant others. *International Journal of Palliative Nursing*, *21*, 173-178. doi:10.12968/ijpn.2015.21.4.173

Mason, D. M., & Ide, B. (2014). Adapting qualitative research strategies to technology savvy adolescents. *Nurse Researcher*, *21*, 40-45. doi:10.7748/nr.21.5.40.e1241

Matheson, F. I., Forrester, P., Brazil, A., Doherty, S., & Affleck, L. (2012). Incentives for research participation: Policy and practice from Canadian corrections. *American Journal of Public Health*, *102*, 1438-1442. doi:10.2105/AJPH.2012.300685

Matusitz, J., & Lord, L. (2013). Glocalization or grobalization of Wal-Mart in the US? A qualitative analysis. *Journal of Organizational Transformation & Social Change*, *10*, 81-100. doi:10.1179/1477963313z.0000000007

Mayfield, J., Mayfield, M., & Sharbrough, W. C. (2015). Strategic vision and values in top leaders' communications: Motivating language at a higher level. *International Journal of Business Communication*, *52*, 97-121. doi:10.1177/2329488414560282

McAlearney, A. S., Hefner, J. L., Sieck, C. J., & Huerta, T. R. (2015). The journey through grief: insights from a qualitative study of electronic health record implementation. *Health Services Research*, *50*, 462-488.

doi:10.1111/1475-6773.12227

McCandles, R., & Eatough, V. (2012). Her energy kid of went into a different place: A qualitative study examining supervisor's experience of promoting reflexive learning in students. *Journal of Marital and Family Therapy*, *38*, 621-638. doi:10.1111/j.1752-0606.2011.00235

McCullough, J. S., Parente, S. T., & Town, R. (2016). Health information technology and patient outcomes: the role of information and labor coordination. *The Rand Journal of Economics*, *47*, 207-236. doi:10.1111/1756-2171.12124

McDermid, F., Peters, K., Jackson, D., & Daly, J. (2014). Conducting qualitative research in the context of pre-existing peer and collegial relationships. *Nurse Researcher*, *21*, 28-33. doi:10.7748/nr.21.5.28.e1232

McGuire, M. J., Noronha, G., Samal, L., Yeh, H., Crocetti, S., & Kravet, S. (2013). Patient safety perceptions of primary care providers after implementation of an electronic medical record system. *Journal of General Internal Medicine*, *28*, 184-192. doi:10:1007/s11606-012-2153-y

McNeil, R., Small, W., Lampkin, H., Shannon, K., & Kerr, T. (2014). People know they could come here to get help: An ethnographic study of assisted injection practices at a peer-run unsanctioned supervised drug consumption room in a Canadian settting. *Aids and Behavior*, *18*, 473-485. doi:10.1007/s10461-013-0540-y

McNulty, T., Zattoni, A., & Douglas, T. (2013). Developing corporate governance research through qualitative methods: A review of previous studies. Corporate

governance: *An International Review*, *21*, 183-198. doi:10.1111/corg/12006.

Melas, C. D., Zampetakis, L. A., Dimopoulou, A., & Moustakis, V. (2011). Modeling the acceptance of clinical information systems among hospital medical staff: an extended TAM model. *Journal of Biomedical Informatics*, *44*, 553-564. doi:10.1016/j.jbi.2011.01.009

Melin, U., & Axelsson, K. (2014). Implementing healthcare information systems– Mirroring a wide spectrum of images of an IT project. *Health Policy and Technology*, *3*, 26-35. doi:10.1016/j.hlpt.2013.11.001

Meslin, E. M., Alpert, S. A., Carroll, A. E., Odell, J. D., Tierney, W. M., & Schwartz, P. H. (2013). Giving patients granular control of personal health information: Using an ethics point to consider to inform informatics system designers. *International Journal of Medical Informatics*, *82*, 1136-1143. doi:10.1016/j.ijmedinf.2013.08.010

Mihalko, M. (2012). Finding meaning in meaning in meaningful use: Understanding the health information technology for economic and clinical health act and its impact on nursing practice. *Jouranl of Pediatric Nursing*, *27*, 88-89. doi:10.1016/j.pedn.2011.10.002

Moffat, B. M., Jenkins, E. K., & Johnson, J. L. (2013). Weeding out the information: An ethnographic approach to exploring how young people make sense of evidence on cannabis. *Harm Reduction Journal*, *10*, 34. doi:10.1186/1477-7517-10-34

Mohammed, K., Nolan, M. B., Rajjo, T., Shah, N. D., Prokop, L. J., Varkey, P., & Murad, M. H. (2016). Creating a patient-centered health care delivery system. A

Systematic review of health care quality from the patient perspective. *American Journal of Medical Quality*, *31*, 12-21. doi:10.1016/j/procs.2013.09.044

Mohammed, S. A., & Yusof, M. M. (2013). Towards an evaluation framework for information quality management (IQM) practices for health information systems–evaluation criteria for effective IQM practices. *Journal of Evaluation in Clinical Practice*, *19*, 379-387. doi:10.1111/j.1365-2753.2012.01839

Molina-Azorín, J. F., López-Gamero, M. D., Pereira-Moliner, J., & Pertusa-Ortega, E. M. (2012). Mixed methods studies in entrepreneurship research: Applications and contributions. *Entrepreneurship & Regional Development*, *24*, 425-456. doi:10.1080/08985626.2011.603363

Moll, S. (2012). Navigating political minefields: Partnerships in organizational case study research. *Work*, *43*, 5-12. doi:10.3233/WOR-2012-1442

Moores, T. T. (2012). Towards an integrated model of IT acceptance in healthcare. *Decision Support Systems*, *53*, 507-516. doi:10.1016/j.dss.2012.04.014

Moss, J. M., Gibson, D. M., & Dollarhide, C. T. (2014). Professional identity development: A grounded theory of transformational tasks of counselors. *Journal of Counseling and Development*, *92*, 3-12. doi:10.1002/j.1556-6676.2014.00124.x

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage Publications, Inc.

Munhall, P. (1988). Ethical considerations in qualitative research. *Western Journal of Nursing Research*, *10*, 150-162. doi:10.1177/019394598801000204

Najafi Kalyani, M., Illon Kashkooli, R., Molazem, Z., & Jamshidi, N. (2014). Qualitative inquiry into the patients' expectations regarding nurses and nursing care. *Advances in Nursing*, *2014*. doi:10.1155/2014/647653

Najaftorkaman, M., Ghapanchi, A. H., Talaei-Khoei, A., & Ray, P. (2015). A taxonomy of antecedents to user adoption of health information systems: A synthesis of thirty years of research. *Journal of The Association For Information Science & Technology*, *66*, 576-598. doi:10.1002/asi.23181

Naqvi, S. M. M. R., & Bashir, S. (2015). IT-expert retention through organizational commitment: A study of public sector information technology professionals in Pakistan. *Applied Computing and Informatics*, *11*, 60-75. doi:10.1016/j.aci.2011.11.001

Neale, J., Miller, P., & West, R. (2014). Reporting quantitative information in qualitative research: Guidance for authors and reviewers. *Addiction*, *109*, 175-176. doi:10.1111/add.12408

Nguyen, C., McElroy, L. M., Abecassis, M. M., Holl, J. L., & Ladner, D. P. (2015). The use of technology for urgent clinician to clinician communications: A systematic review of the literature. *International Journal of Medical Informatics*, 84, 101-110. doi:10.1016/j.ijmedinf.2014.11.003

Nogami, T., & Yoshida, F. (2013). The pursuit of self interest and rule breaking in an anonymous situation. *Journal of Applied Social Psychology*, *43*, 909-916. doi:10.1111/jasp.12056

Norman, D. A., & Verganti, R. (2014). Incremental and radical innovation: Design

research vs. technology and meaning change. *Design Issues*, *30*, 78-96. doi:10.1162/DESI_a_00250

Nuckols, T. K., Asch, S. M., Patel, V., Keeler, E., Anderson, L., Buntin, M. B., & Escarce, J. J. (2015). Implementing computerized provider order entry in acute care hospitals in the United States could generate substantial savings to society. *The Joint Commission Journal on Quality and Patient Safety*, *41*, 341-341. Retrieved from www.rand.org/content/dam/rand/pubs/workimg_papers/WR1100/WR1108/RAND_WR1108.pdf

Odena, O. (2013) Using software to tell a trustworthy, convincing and useful story. *International Journal of Social Research Methodology*, *16*, 355-372. doi:10.1080/13645579.2012.706019

Oh, J., & Yoon, S. J. (2014). Validation of Haptic Enabling Technology Acceptance Model (HE-TAM): Integration of IDT and TAM. *Telematics and Informatics*, *31*, 585-596. doi:10.1016/j.tele.2014.01.002

O'Neill, K., Hodgson, S., & Mazrouei, M. A. (2015). Employee engagement and internal communication: A United Arab Emirates study. *Middle East Journal of Business*, *10*, 3-28. www.mediworld.com.au

Or, C., Wong, K., Tong, E., & Sek, A. (2014). Private primary care physicians' perspectives on factors affecting the adoption of electronic medical records: A qualitative pre-implementation study. *Work*, *48*, 529-538. doi:10.3233/WOR-131808

O'Reilly, M., & Parker, N. (2013). Unsatisfactory saturation: A critical exploration of the

notion of saturated sample sizes in qualitative research. *Qualitative Research*, *13*, 190-197. doi:10.1177/1468794112446106.

Egea, J. M. O., & González, M. V. R. (2011). Explaining physicians' acceptance of EHCR systems: an extension of TAM with trust and risk factors. *Computers in Human Behavior*, *27*, 319-332. doi:10.1016/j.chb.2010.08.010

Otto, P., Nevo, D. (2013). Electronic health records: A simulation model to measure the adoption rate from policy interventions. *Journal of Enterprise Information Management*, *26*, 165-182. doi:10.1108/17410391311289613

Özdemir, G., & Adan, Ö. (2014). Film tourism triangulation of destinations. *Procedia-Social and Behavioral Sciences*, *148*, 625-633. doi:10.1016/j.sbspro.2014.07.090

Ozuru, Y., Briner, S., Kurby, C. A., & McNamara, D. S. (2013). Comparing comprehension measured by multiple-choice and open ended questions. *Canadian Journal of Experimental Psychology 67*, 215. doi:1037/a0032918

Pageler, N. M., Friedman, C. P., & Longhurst, C. A. (2013). Refocusing medical education in the EMR era. *JAMA*, *310*, 2249-2250. doi:10.1001/jama.2013.282326

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research*, *42*, 533-544. doi:10.1007/s10488-013-0528-y

Park, I., Sharman, R., & Rao, H. R. (2015). Disaster experience and hospital information

systems: An examination of perceived information assurance, risk, resilience, and his usefulenss. *MIS Quarterly*, *39*, 317-344. Retrieved from http://aisel.aisnet/org/cgi/viewcontent.cgi?article=3235&context=misq

Patterson, C., McDaid, L. M., & Hilton, S. (2015). Gay and bisexual men's perceptions of the donation and use of human biological samples for research: A Qualitative Study. *PloS one*, *10*(6), e0129924. doi:10.1371/journal.pone.0129924

Payne, T. H., Bates, D. W., Berner, E. S., Bernstam, E. V., Covvey, H. D., Frisse, M. E., & Ozbolt, J. (2013). Healthcare information technology and economics. *Journal of the American Medical Informatics Association*, *20*, 212-217. doi:10.1136/amiajnl-2012-000821

Petty, N. J., Thomson, O. P., & Stew, G. (2012). Ready for a paradigm shift? Part 2: Introducing qualitative research methodologies and methods. *Manual Therapy*, *17*, 378-384. doi:10.1016/j.math.2012.03.004

Power, M. K., & Gendron, Y. (2015). Qualitative research in auditing: A methodological roadmap. Auditing: *A Journal of Practice & Theory*, *34*, 147-165. doi:10.2308/ajpt-10423

Price, M., & Lau, F. (2014). The clinical adoption meta-model: a temporal meta-model describing the clinical adoption of health information systems. *BMC Medical Informatics and Decision Making*, *14*(1), 1. doi:10.1186/1472-6947-14-43

Qaseem, A., Alguire, P., Dallas, P., Feinberg, L. E., Fitzgerald, F. T., Horwitch, C., & Weinberger, S. (2012). Appropriate use of screening and diagnostic tests to foster high-value, cost-conscious care. *Annals of Internal Medicine*, *156*, 147-149. doi:10.7326/0003-4819-156-2-201201170-00011

Ramanathan, U., & Gunasekaran, A. (2014). Supply chain collaboration: Impact of success in long-term partnerships. *International Journal of Production Economics*, *147*, 252-259. doi:10.1016/j.ijpe.2012.06.002

Rashid, A. H., & Yasin, N. B. M. (2015). Sharing healthcare information based on privacy preservation. *Scientific Research and Essays*, *10*, 184-195. doi:10.5897/sre11.862

Rapport, F., Clement, C., Doel, M. A., & Hutchings, H. A. (2015). Qualitative research and its methods in epilepsy: Contributing to an understanding of patients lived experiences of the disease. *Epilepsy & Behavior*, *45*, 94-100. doi:10.1016/j.yebeh.2015.01.040

Raymond, L., Paré, G., de Guinea, A. O., Poba-Nzaou, P., Trudel, M. C., Marsan, J., & Micheneau, T. (2015). Improving performance in medical practices through the extended use of electronic medical record systems: A survey of Canadian family physicians. *BMC Medical Informatics and Decision Making*, *15*(1), 1. doi:10.1186/s12911-015-0152-8

Reed, M., Huang, J., Brand, R., Graetz, I., Neugebauer, R., Firemean, B., & Hsu, J. (2013). Implementation of an outpatient electronic health record and emergency department visits hospitalizations, and office visits among patients with diabetes. *JAMA*, *310*, 1060-1065. doi:10.1001/jama.2013.276733

Reeves, S., Peller, J., Goldman, J., & Kitto, S. (2013). Ethnography in qualitative educational research: AMEE Guide No. 80. *Medical Teacher*, *35*, 1365-1379. doi:10.3109/0142159X.2013.804977

Reina, R., Cristofaro, C., Lacroce, A., & Ventura, M. (2012) Managing the knowledge interdependence with electronic medical record. *Measuring Business Excellence*, *16*, 31-41. doi:10.1108/13683041211276429

Reis, S., Sagi, D., Eisenberg, O., Kuchnir, Y., Azuri, J., Shalev, V., & Ziv, A. (2013). The impact of residents' training in electronic medical record (EMR) use on their competence: Report of a pragmatic trial. *Patient Education and Counseling*, *93*, 515-521. doi:10.1016/j.pec.2013.08.007

Renz, A. D., Conrad, D. A., & Watts, C. A. (2013). Stakeholder perspectives on the implementation of shared decision making: A qualitative data analysis. *International Journal of Healthcare Management*, *6*, 122-131. doi:10.1179/2047971912Y.0000000027

Riala, M., & Nummelin, T. (2015). Developing and testing an online tool for probing customer preferences. *International Journal of Market Research*, *57*, 29-50. doi:10.2501/IJMR-2015-004

Ries, M. D. (2014). Electronic medical records: Friends or foes?. *Clinical Orthopaedics and Related Research*, *472*(1), 16. doi:10.1007/s11999-013-3367-y

Roberts, S. H., & Bailey, J. E. (2013). An ethnographic study of the incentives and barriers to lifestyle interventions for people with severe mental illness. *Journal of Advanced Nursing*, *69*, 2514-2524. doi:10.1111/jan.12136

Robinson, J. C., & Miller, K. (2014). Total expenditures per patient in hospital-owned and physician-owned physician organizations in California. *JAMA*, *312*, 1663-1669. doi:10.1001/jama.2014.14072.

Roehrig, C., Turner, A., Hughes-Cromwick, P., & Miller, G. (2012). When the cost curve bent—Pre-recession moderation in health care spending. *The New England Journal of Medicine*, *367*, 590-593. doi:10.1056/NEJMp1205958

Rowley, J. (2012). Conducting research interviews. *Management Research Review*, *35*, 260-271. doi:10.1108/01409171211210154

Sandelowski, M. (1993) Rigor or rigor mortis: The problem of rigor in qualitative research revisited. *Advances in Nursing Science*, *16*(2), 1-8. doi:10.1097/00012272-199312000-00002

Sandelowski, M. (2007). Sample size in qualitative research. *Research in Nursing and Health*, *18*, 179-183. doi:10.1002/nur.4770180211

Schaller, A., Liedberg, G. M., & Larsson, B. (2014). How relatives of patients with head and neck cancer experience pain, disease progression and treatment: A qualitative interview study. *European Journal of Oncology Nursing*, *18*, 405-410. doi:10.1016/j.ejon.2014.03.008

Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, *15*, 325-343. doi:10.1086/209170

Siddiqui, S., Ramesh, A., Manoharan, K., Hussein, A., Jawad, A. M., & Hussain, F. (2014). Developing a framework for the internationalization of British healthcare institutes: A qualitative dual case study analysis. *International Journal of Healthcare Management*, *7*, 14-20. doi:10.1179/2047971913Y.0000000059

Singh, J. S. (2015). Narratives of participation in autism genetics research. *Science, Technology & Human Values*, *40*, 227-249. doi:10.1177/0162243914542162

Sinkovics, R., & Alfoldi, E. (2012). Progressive focusing and trustworthiness in qualitative research. *Management International Review*, *52*, 817-845. doi:10.1007/s11575-012-0140-5

Sinsky, C. A., Beasley, J. W., Simmons, G. E., & Baron, R. J. (2014). Electronic health records: Design, implementation, and policy for higher-value primary care. *Annals of Internal Medicine*, *160*, 727-728. doi:10.7326/M13-2589

Sittig, D. F., Gonzalez, D., & Singh, H. (2014). Contingency planning for electronic health record-based care continuity: a survey of recommended practices. *International Journal of Medical Informatics*, *83*, 797-804. doi:10.1016/j.ijmedinf.2014.07.007

Slight, S. P., Quinn, C., Avery, A. J., Bates, D. W., & Sheikh, A. (2014). A qualitative study identifying the cost categories associated with electronic health record implementation in the UK. *Journal of the American Medical Informatics Association*, *21*, e226-e231. doi:10.1136/amiajnl-2013-002404

Sparkes, A. C. (2015). Developing mixed methods research in sport and exercise psychology: Critical reflection of five points. *Psychology of Sport and Exercise*, *16*, 49-59. doi:10.1016/j.psychsport.2014.08.014

Springham, N., & Brooker, J. (2013). Reflect interview using audio-image recording: Development and feasibility study. *International Journal of Art Therapy*, *18*, 54-66. doi:10.1080/17454832.2013.791997

Stavropoulou, A., & Kelesi, M. (2012). Concepts and methods of evaluation in nursing education—a methodological challenge. *Health Science Journal*, *6*, 11-23. Retrieved from: www.hsj.gr

Sternard, S., & Bobek, S. (2013). Impacts of TAM-based external factors on ERP acceptance. *Procedia Technology*, *9*, 33-42. doi:10.1016/j.protcy.2013.12.004

Strauss, A., & Corbin, J. (1998). Basics of qualitative research: *Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks, CA: Sage Publications.

Styhre, A. (2014). Gender equality as institutional work. The case of the church of Sweden. *Gender*, *Work & Organization*, *21*, 105-120. doi:10.1111/gwao.12024

Svendsen, G. B., Johnsen, J. A. K., Almas-Sorensen, L., & Vitterso, J. (2013). Personality and technology acceptance. The influence of personality factors on the core constructs of the technology acceptance model. *Behavior & Information Technology*, *32*, 323-334. doi:10.1080/0144929X.2011.553740

Terry, N. P. (2013). Meaningful adoption: what we know or think we know about the financing, effectiveness, quality, and safety of electronic medical records. *The Journal of Legal Medicine*, *34*, 7-42. doi:10.1080/01947648.2013.768143

Thomas, S. J. (2015). *Exploring strategies for retaining information technology professionals: A case study* (Doctoral dissertation). Retreived from ProQuest Dissertations and Theses. (UMI No. 36815)

Thompson, O. P., Petty, N. J., & Scholes, J. (2014). Grounding osteopathic research–introducing grounded theory. *International Journal of Osteopathic Medicine*, *17*, 167-186. doi:10.1016/j.ijosm.2013.07.010

Ting, S. L., Lp, W. H., Tsang, A. H. C., Ho, G. T. S. (2012). An integrated electronic medical record system (iEMRS) with decision support capability in medical prescription. *Journal of Systems and Information Technology*, *14*, 236-245. doi:10.1108/13287261211255347

Tonberg, A., Harden, J., McLellan, A., Chin, R. F. M., & Duncan, S. (2015). A qualitative study of the reactions of young adults with epilepsy to Sudep disclosure, perceptions of risks, views on the timing of disclosure, and behavioural change. *Epilepsy & Behavior*, *42*, 98-106. doi:10.1016/j.yebeh.2014.11.018

Top, M., Yilmaz, A., & Gider, Ö. (2013). Electronic Medical Records (EMR) and Nurses in Turkish hospitals. *Systemic Practice and Action Research*, *26*, 281-297. doi:10.1007/s11213-012-9251-y

Trainor, A. A., & Graue, E. (2014). Evaluating rigor in qualitative methodology and research dissemination. *Remedial and Special Education*, *35*, 267-274. doi:10.1177/0741932514528100

Tseng, H. C., Wang, H. H., & Weng, W. C. (2013). Nursing students' perceptions toward the nursing profession from clinical practicum in a baccalaureate nursing program. A qualitative study. *The Kaohsiung Journal of Medical Sciences*, *29*, 161-168. doi:10.1016/j.kjms.2012.08.027

Tufford, L., & Newman, P. (2012). Bracketing in qualitative research. *Qualitative Social Work*, *11*, 80-96. doi:10.1177/1473325010368316

Turner, B. L., Kim, H., & Andersen, D. F. (2013). Improving coding procedures for purposive text data: researchable questions for qualitative system dynamics modeling. *System Dynamics Review*, *29*, 253-263. doi:10.1002/sdr.1506

Tyldum, G. (2012). Ethics or access? Balancing informed consent against the application of institutional, economic or emotional pressures in recruiting respondents for research. *International Journal of Social Research Methodology*, *15*, 199-210. doi:10.1080/13645579.2011.572675

U.S. Department of Health and Human Services (HHS), (2009). The Hitech Act. Retrieved from http://www.hhs.gov

U. S. Department of Health and Human Services (HHS), (1979). *The Belmont Report*. Retrieved from http://www.hhs.gov/ohrp/humansubjects/guidance/belmont/html

U. S. Department of Health and Human Services (HHS), 2016. HHS advance pathogen reduction technologies for blood products may reduce risk of emerging states. Retreived from http://www.hhs.gov/about/news/2016/06/20/hhs-advances-pathogen-reduction-technologoes-blood-products.html

van den Hooff, S. L., & Goossensen, A. (2015). Ethical considerations on the value of patient knowledge in long-term care A qualitative study of patients suffering from Korsakoff's syndrome. *Nursing ethics*, *22*, 377-388. doi:10.1177/0969733014534876

van Eaton, E. G., Zatzick, D. F., Gallagher, T., Tarczy-Hornoch, P., Rivara, F. P., Flum, D. R., & Maier, R. (2014). A nationwide survey of trauma center information

technology leverage capacity for mental health comorbidity screening. *American College of Surgeons*, *219*, 505-510. doi:10.1016/j.jamcollsurg.2014.02.032

van Eijk, N., Helberger, N., Kool, L., van der Plas, A., & van der Sloot, B. (2012). Online tracking: Questioning the power of informed consent. *Info*, *14*, 57-73. doi:10.1108/14636691211256304

Vest, J. R., Campion T. R., Kern, L. M., & Kaushal, R., & HITEC investigators (2014). Public and private sector roles in health information technology policy: Insights from the implementation and operation of exchange efforts in the United States. *Health Policy and Technology*, *3*, 149-156. doi:10.1016/j.hlpt.2014.03.002

Walker, J. L. (2012). Research column. The use of saturation in qualitative research. *Canadian Journal of Cardiovascular Nursing*, *22*, 37-41. http://www.cccn.ca

Wallace, L. G., & Sheetz, S. D. (2014). The adoption of software measures: A technology acceptance model (TAM) perspective. *Information & Management*, *51*, 249-259. doi:10.1016/j.im.2013.12.003

Walsh, K. (2013). When I say… triangulation. *Medical Education*, *47*, 866. doi:10.1111/medu.12241

Walter, S. R., Dunsmuir, W. T., & Westbrook, J. I. (2015). Studying interruptions and multitasking in situ: The untapped potential of quantitative observational studies. *International Journal of Human-Computer Studies*, *79*, 118-125. doi:10.1016/j.ijhcs.2015.01.008

Wang, H. Q., Li, J. S., Zhang, Y. F., Suzuki, M., & Araki, K. (2013). Creating personalised clinical pathways by semantic interoperability with electronic health records. *Artificial Intelligence in Medicine*, *58*, 81-89. doi:10.1016/j.artmed.2013.02.005

Watson, S. L., Benett, C. J., & Al-Harbi, A. (2014). Understanding the factors affecting employees perceived benefits of healthcare information technology. *International Journal of Healthcare Management*, *7*, 35-44. doi:10.1179/2047971913Y.0000000051

Weiss, C. H., & Nunes Amaral, L. A. (2013). Envisioning sophisticated electronic health records through the lens of health care Reform. *American Journal of Respiratory and Critical Care Medicine*, *188*, 636-638. doi:101164/rccm.201304-0615ED

Whisenhunt, J. L., Chang, C. Y., Flowers, L. R., Brack, G. L., O'Hara, C., & Raines, T. C. (2014). Working with clients who self-Injure: A grounded theory approach. *Journal of Counseling & Development*, *92*, 387-397. doi:10.1002/j.1556-6676.2014.00165.x

White, A., & Danis, M. (2013). Enhancing patient-centered communication and collaboration by using the electronic health record in the examination room. *JAMA*, *309*, 2327-2328. doi:10.1001/jama.2013.6030

White, C., & Ginsburg, P. B. (2012). Slower growth in Medicare spending is this the new normal? *The New England Journal of Medicine*, *366*, 1073-1075. doi:10.1056/NEJMp1201853

White, C. N., & Poldrack, R. A. (2014). Decomposing bias in different types of simple decisions. *Journal of Experimental Psychology*: *Learning*, *Memory*, *and Cognition*, *40*, 385-398. doi:10.1037/a0034851

Wiles, R., Coffey, A., Robinson, J., & Heath, S. (2012). Anonymisation and visual images: Issues of respect, voice and protection. *International Journal of Social Research Methodology*: *Theory & Practice*, *15*, 41-53. doi:10.1080/13645579.2011.564423

Williams, K. G., & Gold, K. J. (2014). Pharmacy implications of the HIPAA breach notification rule. *American Journal of Health-System Pharmacy*, *71*, 1337-1338. doi:10.2146/ajhp130598

Williamson, E., Nichols, V., & Lamb, S. E. (2015). If I can get over that, I can get over Anything. Understanding how individuals with acute whiplash disorders form beliefs about pain and recovery: A qualitative study. *Physiotherapy*, *101*, 178-186. doi:10.1016/j.physio.2014.06.001

Wilson, A. (2014). Being a practitioner: An application of Heidegger's phenomenology. *Nurse Researcher*, *21*, 28-33. doi:10.7748/nr.21.6.28.e1251

Wilson, C. V. (2012). *Postimplementation planning and organizational structure of Enterprise resource planning systems* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses Database. (UMI No. 3512581)

Wisdom, J. P., Cavaleri, M. A., Onwuegbuzie, A. J., & Green, C. A. (2012). Methodological reporting in qualitative, quantitative, and mixed methods health services research articles. *Health Services Research*, *47*, 721-745.

doi:10.1111/j.1475-6773.2011.01344.x

Witty, K., Branney, P., Bullen, K., White, A., Evans, J., & Eardley, I. (2014). Engaging men with penile cancer in qualitative research: reflections from an interview-based study. *Nurse Researcher*, *21*, 13-19. doi.10.7748/nr2014.01.21.3.13

Wolf, L., Harvell, J., & Jha, A. L. (2012). Hospitals ineligible for federal meaningful use incentives have dismally low rates of adoption of electronic health records. *Health Affairs*, *31*, 505-513. doi:10.1377/hlthaff.2011.0351

Woolthuis, R. K., Hooimeijer, F., Bossink, B., Mulder, G., & Brouwer, J. (2013). Institutional entrepreneurship in sustainable urban development: Dutch successes as inspiration for transformation. *Journal of Cleaner Production*, *50*, 91-100. doi:10.1016/j.jclepro.2012.11.031

Wu, Y. W., Wen, M. H., Chen, C. M., & Hsu, I. T. (2016). An integrated BIM and cost estimating blended learning model–acceptance differences between experts and novice. *Eurasia Journal of Mathematics, Science & Technology Education*, *12*, 1347-1363. doi:10.12993/Eurasia.2016.1517a

Yin, R. K. (2014). *Case study research design and methods* (5th ed.). Los Angeles, CA: Sage Publications, Inc.

Yoon, H. S., & Steege, L. M. B. (2013). Development of a quantitative model of the impact of customers' personality and perceptions on internet banking use. *Computers in Human Behavior*, *29*, 1133-1141. doi:10.1016/j.chb.2012.10.005

Zadvinskis, I. M., Chipps, E., & Yen, P. Y. (2014). Exploring nurses' confirmed

expectations regarding health IT: A phenomenological study. *International Journal of Medical Informatics*, *83*, 89-98. doi:10.1016/j.ijmedinf.2013.11.001

Zakari, N. M., Hamadi, H. Y., & Salem, O. (2014). Developing an understanding of research-based nursing pedagogy among clinical instructors: A Qualitative Study. *Nurse Education Today*, *34*, 1352-1356. doi:10.1016/j.nedt.2014.03.011

Zarif, T. (2012). Grounded theory method: An overview. *Interdisciplinary Journal of Contemporary Research in Business*, *4*, 969-979. Retrieved from http://ijcrb.webs.com

Zhang, Y., Yu, P., & Shen, J. (2012). The benefits of introducing electronic health records in residential aged care facilities: A multiple case study. *International Journal of Medical Informatics*, *81*, 690-704. doi:10.1016/j.ijmedinf.2012.05.013

Zheng, N. T., Rokoske, F. S., Kirk, M. A., Lyda-McDonald, B., & Bernard, S. L. (2014). Hospices' use of electronic medical records for quality assessment and performance improvement programs. *Journal of Pain and Symptom Management*, *48*, 582-589. doi:10:1016/j.jpainsymman.2013.11.010

Appendix A: Interview Protocol

Student: Anthony Cal

Institution: Walden University

Interviewer: Anthony Cal Doctoral Student

Interviewer Background: I am a doctoral student at Walden University and the role you play in providing responses is to assist me in completing this study on the strategies that business professionals use to increase productivity and revenue with implementation of the EMR. I will go over the consent form and please be reminded that you can withdraw from the interview at any time. I would like to thank you for your voluntary participation.

To facilitate our note-taking, we would like to audio tape our conversations today. For your information, all data will be stored in secured storage and all records destroyed after 5 years. In addition, you must sign a consent form devised to meet our human subject protection requirements. Essentially, this document states that: (1) all information is held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) we do not intend to inflict any harm. Thank you for your agreeing to participate. The interview may last 45 to 75 minutes and additional time may be required as needed. Please sign the consent form.

To enhance the reliability and validity of the data collection instrument, I will use member checking. After the interview, I will write a two page summary of the analysis of the data collected and emailed to you for input and feedback.

You have been selected to speak with me today because you have been identified as someone who can share information about EMR implementation strategies.

Participation is voluntary. My research project focuses on the strategies that health care business professionals use to improve productivity and revenue. My aim is not to evaluate your experience but rather to learn more about strategies that health care professionals used to increase productivity and revenue to assist other health care professionals.

A. **Interview background**

1. How often do you use the EMR?
2. What is your age?
3. What is you educational background?

B. **Interview Questions**

Participants have an opportunity to respond to semistructured, open-ended interview questions. The focus of the discussion consist of the strategies health care professionals use to increase productivity and revenue.

1. What strategies are used to overcome barriers to implementation?
2. What alternative strategies were considered based on feedback data?
3. What strategies are in place to help users understand the usefulness of EMR implementation?
4. What strategies were implemented to help users understand the EMR system?
5. What business processes were eliminated or enhanced in the implementation of the EMR?

6. What type of leadership support strategies has the organization received since the implementation of the EMR?
7. What training if any have you received in using the EMR?
8. What type of communication has the EMR system provided between provider, patient, and community?
9. What safety issues have you encountered with implementation of the EMR?
10. What additional information would you like to add to this interview?

C. **Post interview comments**

Thank you very much for your time today. I will analyze and summarize the interview and forward the results to you via email for any feedback you might have to correct any errors or irregularities of the data. My email address is XXX and my telephone number is XXX-XXX-XXXX.

Appendix B: Email to Participants

To: email address

Subject: Feedback on analysis

Dear Sir/Madam,

I am forwarding the analysis from the interview that we conducted. Please feel free to give any feedback, whether positive or negative, to correct any errors or inconsistencies. Thank you very much for your time.

Anthony Cal

Doctoral Student

Walden University

Appendix C: Email Inviting Participants to Participate

Dear Business Healthcare Professional,

My name is Anthony Cal, and I am a student at Walden University in the Doctor of Business Administration program. I am conducting a research study to explore what are the electronic medical record (EMR) strategies healthcare business professionals use to increase productivity and revenue. As this is a qualitative study, it consist of interviews with EMR users consisting of open-ended questions.

The questions consist of 10 open-ended questions and the interview should take about 45 to 75 minutes of your time. Interviews will take place at a location to be determined. You will be given a consent form to sign if you decide to participate. I do not anticipate any risks in your participation in the study. Your participation is voluntary and if you become uncomfortable answering any questions, you may choose to stop at any time. All responses will remain anonymous and there is no way for anyone to link responses with e-mail addresses or personal identifying information. The data collected will provide information that may be helpful to business healthcare professionals like yourself. In addition to publishing my dissertation, I hope to disseminate to you a one to two-page analysis of the findings.

If you are willing to participate in the study, please reply to this email and I will contact you to arrange a time for the interview. If you have any questions, please contact me at XXXX or XXX-XXX-XXXX. This research has received the approval of The Walden University Institutional Review Board (IRB), which functions to ensure the protection of the rights of human participants. If you, as a participant, have any questions or concerns about this study please contact me or Dr. Leilani Endicott, the Walden University IRB representative who can discuss this with you. Her phone number is XXX-XXX-XXX and her email is XXXX. Thank you.

Sincerely,

Anthony Cal
Doctoral DBA Student
Walden University